Stock Analysis of Oil Drilling and Exploration Companies Impacting India's Economic Environment

Esha Jain, Namita Gupta, Sandeep Kumar Gupta, Hanna Davydenko

Abstract— According to the Rainforest Foundation USA, Oil drilling and exploration may cause massive deforestation and dangerous poisons directly pumped into the natural environment, but the drilling and exploration simultaneously generate business activity across a spectrum of industries which may leads improvement in the economic situation. This study has been taken into consideration the top five Indian companies by their market capitalisation, which is specifically into oil drilling and exploration business. The growth of these companies has analysed by using the most famous and reliable technical indicator, Wilder's Relative Strength Index (RSI) to explain the movement of their stock values. If RSI shows a value less than 30, it indicates that the stock or index is in the oversold territory (It's stock price indicate internal strength of Stocks), while a value higher than 70 suggests an overbought status. The result findings from the stock analysis of top five oil drilling and exploration companies are up to the mark and show the balanced growth of these organisations besides all the adverse effects of oil drilling and exploration as they are performing well by keeping in view all the suggestive measures for the benefit of India's economic environment.

Keywords: Economic environment, Oil drilling, Relative Strength Index, Stock Analysis, Natural demolition, Ecological dangers, Vegetative cover.

I. INTRODUCTION

The in question for both oil organisations and Government is vast to the point that human rights and natural demolition are just unfortunate necessities in transit to enormous benefits. However, the indigenous people groups dwelling on these oil-rich grounds once in a while receive the rewards. Oil outpouring has been an essential factor for economic development. It generates business activity across a spectrum of industries which may leads improvement in economic environment.

According to the **Rainforest Foundation USA**[i], in the most punctual years of oil extraction organisations, much of the time discarded boring waste straightforwardly into streams or burrowed goliath pits to dump their slop. These chemicals harmed conduits and filtered into the encompassing range. In light of extraordinary open weight today these activities are not any more legitimate yet oil penetrating is as yet killing our rainforests. Organisations start the procedure by investigating an area of the rainforest for oil. Regardless of the possibility that they neglect to discover adequate oil holds, only the underlying investigation changes the character of the rainforest. Streets are cut out of the timberland to transport large gear, and territories are cleared to clear a path for boring and oil camps. These recently cleared zones every now and again draw in illegal lumberjacks and further attacks into beforehand blocked off woodlands.

When oil extraction starts, chemicals are utilised both to make the oil wells and to move the oil out of the well and in its refining. Discarding this waste is hazardous and entangled, and many oil organisations had discovered overlooking legitimate transfer strategies time once more. Furthermore, pipelines and wells can spill, oils spills are incessant, and overwhelming metals have once in a while retched into the air all through the extraction procedure. Oil and gas penetrating can be a messy business. Penetrating undertakings work on a 24-hour premise, difficult untamed life, water sources, human wellbeing, entertainment and different purposes for which open grounds were put aside and held in trust for the American individuals[ii]. As the business keeps on crawling closer and nearer to our country's flawless wild ranges and national parks, consider some of these best ecological dangers exhibited by oil and gas boring.

Organic frameworks are extraordinarily minded-boggling and can succumb to specific natural outcomes when exasperates by human movement. Expanded vehicle activity at boring oil locales contributes fundamentally to cacophony contamination in wild lands. Wild warm-blooded animals and winged creatures react to clamour unsettling influences with here and now evasion conduct, yet many examinations or studies[iii] have demonstrated that these practices move toward becoming habituated. Adverse effects incorporate interruption of warbler correspondence in reproducing and settling seasons, and besides, adjusted predator and prey elements. Warm-blooded creatures habituated to movement might be more defenceless against street slaughter.

Activities that may cause environmental impacts to include ground clearing, grading, drilling, waste management, vehicular and pedestrian traffic, and construction and induction of facilities. Impacts would be similar to those addressed for exploration; but would be more extensive due to an increased number of wells, access roads, pipelines, and other ancillary facilities (e.g., compressor stations or pumping stations) that would be required.[iv]

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Typical activities during the drilling and development of an oil or gas well include ground clearance and removal of vegetative cover, grading, drilling, waste management, vehicular and pedestrian traffic, and construction and installation of facilities.[v] Activities handle in locations other than at the oil and gas well pad site may include excavation/blasting for construction materials (sands, gravels), access road and storage area construction, and construction of gathering pipelines and compressor or pumping stations. Potential impacts from these activities are presented below, by the type of affected resource.

The research-based study had done by **Patten(1992)**[vi] in in which he examined the effect of the *Exxon Valdez* oil spill on the annual report environmental exposure of petroleum firms other than Exxon. A significant increase in such exposure had found. Furthermore, the amount of change was shown to be related to firm size and ownership in the Alyeska Pipeline Service Company. The results, therefore, supported the legitimacy theory arguments.

Filho (1997)[vii] Showed how environmental education and environmental management, two significant tools in promoting sustainable development, may be integrated. The characteristic features of environmental education and environmental management were outlined in this study, listing the benefits of the integration of both methodologies. It has also observed in the study that if properly designed, integration programmes may be able to capitalise on the potential of environmental education and environmental management and on their ability to foster a sounder use of environmental resources effectively.

Sharma & Vredenburg(1998) [viii]Present the results of a study manage in two phases within a single industry context. The first phase involved comparative case studies to ground the applicability of the resource-based view of the firm within the domain of environmental responsiveness. The second phase involved testing the relationships observed during the case studies through a mail survey. It has found that strategies of proactive responsiveness to the uncertainties inherent at the interface between the business and ecological issues have associated with the emergence of unique organisational capabilities. These capabilities, in turn, were seen to have significance for firm competitiveness. **Rourke & Connolly (2003)**[ix] We have described and analysed the environmental, social, and health shock of oil extraction, transport, refining, and consumption, with a particular focus on the distribution of these burdens among socioeconomic and ethnic groups, communities, countries, and ecosystems. The study resulted into the fact that oil's adverse impacts, which spread out virtually everywhere oil flows, appear to disproportionately affect groups such as indigenous communities, migrant workers, and poor communities living near refineries, pipelines, and gas stations.

As per Yihua Philip Sheng ,Wen-Chi Hou and Zhong Chen (2005) The stock market is also like other economic phenomena. Economy is a very complex system. Many issues, such as firm information, loan interest rates, macro-economic information, and investors' expectation and fears, all affect its behavior (Pring, 1991; Sharpe, Alexander, & Bailey, 1999). Investors have longed for tools and algorithms to analyze and invest in stock market movement for future gain.

Ugochukwu & Ertel (2008)[x] did a study and found that environmental pollution arising from oil prospecting and exploration in the Niger Delta area of Nigeria has impacted negatively on the biodiversity of the affected areas. The principal stresses in the regions affected aroused from leakages of crude oil, gas flaring and the escape of other chemicals used in the production processes. Effects on flora and fauna of freshwater ecosystems in that part of Nigeria have noticed. They discussed the various impacts that oil production has had so far on the biodiversity of that unique part of Nigeria and reported on efforts made by the government, oil companies, and non-governmental organisations to remedy the situation.

As per Vincent Martin, Emmanuel Bruno and Elisabeth Murisasco (2015) these analyses are very significant: sentiment analysis and subjectivity analysis for stock analysis.

According to Naveen Kumar Baradi and Sanjay Mohapatra (2015) Stock brokers believe on more on fundamental analysis vis-à-vis technical analysis at longer forecasting horizons and rely more on technical analysis at shorter forecasting horizons. Among Chartist Methods and Services, Sentiment Indicators were most used and Chart Company or Analyst was least used by brokers. Among Valuation Techniques, Earnings Multiple Methods were most used and Dividend Discount Models were least used by brokers. Stock brokers' age correlates with usage of sentiment indicators and their gender correlates with the usage of computer graphics and services. Regarding the use of chartist / technical and fundamental analysis on seven forecasting horizons, four distinct forecasting styles among stock brokers could be identified through cluster analysis.

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According to Ricardo Alonso Gonzalez and Adriano Leal (2015) Stock is considered that decisions are influenced, even in part, by these factors. He has suggest the action of the affect heuristic, which can influence the perception of risks and benefits, even in environments where rationality should be more influencial, such as in the financial market. The finally accepted the existence of the affect heuristic and a negative association between perceived knowledge of the market and the affect heuristic.

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As per Nabila Nisha (2016) Many past date has a strong evidence of a correlated between stock prices and macro-economic factors across different stock markets and time horizons. In the most of these cases have emphasis on developed contries and highlighted the influence of either domestic factors or a few international factors. In recent times, the impact of international macro-economic factors upon stock returns has garnered a lot of interest due to globalization.

According to Shailesh Rastogi (2016) in the globalized modern era, the world order has become dynamic. But the guidelines of success are same. An economies having only internal success cannot sustain for long-term and similarly for external success. External success is mainly base upon exchange rate variation of market and its management by central banks especially for developing economies. Internal success is reflected in the stock markets of the nations.

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As per Mirza O. Beg, Mubashar Nazar and Syed Shahzaib Ali (2019), Stock markets including many determinants that are being used for stock prediction include social media influences and daily local and international information on stocks trading. Considering these subjective and measurable features at the same time result in better prediction models.

II. OBJECTIVES OF THE STUDY

The main objectives of the study are: -

1. To find out the impact of oil drilling and exploration companies on the economic environment of India.
2. To analyses the stock values of the top five oil drilling and exploration companies listed on NSE (in the last one year through descriptive statistics).
3. To check the movement and growth of the top five oil drilling and exploration companies listed on NSE by analysing their price movements using Wilder's Relative Strength Index RSI.

III. METHODOLOGY

The study aims at analysing the price movements of the top five oil drilling and exploration companies' scrips listed on NSE. As the study describes the existing facts and figures given in the financial statement and the price movements of the selected companies, the research design followed is descriptive and analytical. To achieve the desired objective of impact of these companies on economic environment, the detailed review of the literature has been done and to accomplish the rest wanted goals, the closing prices of all the five companies listed on NSE were absorbed for the last complete one year, i.e., from 27th August 2016 to 27th August 2017 on a daily basis. The closing prices of share prices have taken, and the future price movement was analysed using various tools. Data have collected from secondary sources, i.e. trading of the equity market in NSE. All the oil drilling and exploration companies listed on NSE have taken into consideration, and top 5 have selected by their market capitalisation as on 27th August 2017. For analysis of date, we have used RSI method to get internal strength of the company. The selected companies with their market capitalisation are (1 USD= 69.17 INR):

Table 1: Showing Sample Companies with market capitalisation

S. No.	Company Name	Market Capital (USD Millions)
1	ONGC (Oil and Natural Gas Corporation Limited)	29666.53
2	GAIL (GAIL India Limited)	9390.56
3	Petronet LNG (Petronet LNG Limited)	4854.34
4	Oil India (Oil India Limited)	3419.50
5	IGL (Indraprastha Gas Limited)	2573.31

The sample companies shown in Table 1 were taken into consideration by their market capitalisation which has valued in USD Millions. The companies shown in the table are the top Indian companies in the segment of Oil Drilling and Exploration Companies.

IV. DATA ANALYSIS & INTERPRETATION

The data was analysed through various statistical tools to achieve desired objectives. Table 2 shows descriptive statistics of all the five companies in a comparable way.

Table 2: Descriptive Statistics

Statistical Parameter	ONGC	GAIL	Petronet LNG	Oil India	IGL
Mean	49.11	54.61	53.42	50.49	57.50
Standard Error	1.18	1.180	1.02	1.14	1.087
Median	47.73	55.64	53.75	49.99	58.9
Mode	61.78	68.29	65.34	56.68	42.08

Standard Deviation	18.09	18.05	15.75	17.52	16.63
Sample Variance	327.33	325.90	248.11	307.16	276.61
Kurtosis	-0.64	-0.66	-0.21	-0.47	-0.53
Skewness	0.24	-0.22	-0.15	0.06	-0.27
Range	77.39	80.89	77.75	81.05	73.12
Minimum	14.43	10.24	9.65	11.34	14.86
Maximum	91.82	91.13	87.4	92.39	87.98

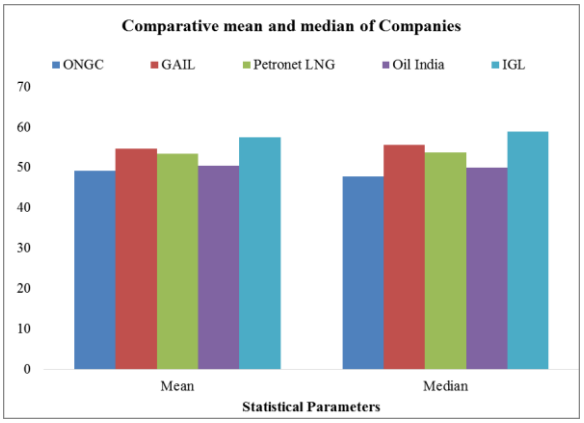

Figure 1: Comparative mean and median of Companies

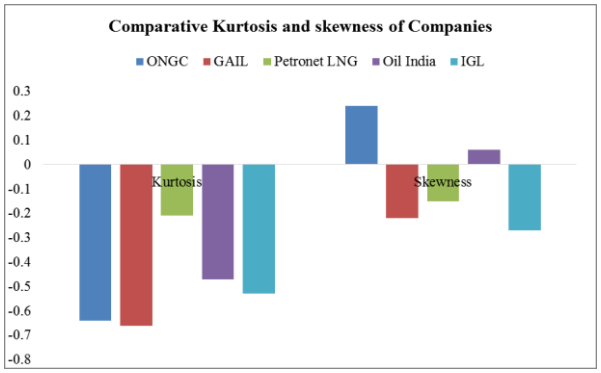

Figure 2: Comparative Kurtosis and skewness of Companies

It is clear from the table no. 2 as well as graphic representations shown in the figure 1 and 2 respectively that the mean values of ONGC, GAIL, Petronet LNG, Oil India, and IGL for the last One year are 49.11, 54.61, 53.42, 50.49 and 57.50 respectively and the median values are 47.73, 55.64, 53.75, 49.99 and 58.9 respectively. The standard deviation helps to measure the variability of return which includes both systematic and unsystematic risk. In the table, the standard deviation for ONGC, GAIL, Petronet LNG, Oil India, and IGL is 18.09, 18.05, 15.75, 17.52 and 16.63 respectively. Most people are risk-averse, in that they wish to minimise the amount of risk they must endure to earn a certain level of expected return. Although the assumed return is the best estimate available of future returns, the actual performance is not likely to equal the expected return. Therefore, they want to know the range, or dispersion, of possible outcomes, as well as the likelihood of specific issues occurring. For this reason, we would like to have an idea of how precise our estimate might be. To quantify the precision of our calculations here, we have been using two concepts: variance and its square root, i.e., the standard deviation. Variance measures the variability from average volatility. Volatility is a measure of risk, so this statistic can help resolve the risk an investor might take on when purchasing specific security. The table shows values of sample variance for ONGC, GAIL, Petronet LNG, Oil India, and IGL as 327.33, 325.90, 248.11, 307.16 and 276.61 respectively. Variance has calculated with the help of following formula:

$$\frac{\sum_{i=1}^{T}\left(r_{i,t}-\bar{r_i}\right)^2}{T-1}$$

Where,

ri, t = each observed return

r¯i= average historical return

T = number of observations

Further, skew or skewness can be mathematically defined as the averaged cubed deviation from the mean divided by the standard deviation cubed. If the result of the computation is greater than zero, the distribution is positively skewed. If it is less than zero, it is negatively skewed and equal to zero means it is symmetric. Table 2 shows the value of skewness as -0.24, -0.22, -0.15, 0.06 and -0.27 for ONGC, GAIL, Petronet LNG, Oil India, and IGL respectively. Positively skewed means frequent small losses and a few extreme gains and negatively skewed mean many small gains and a few extreme losses.

There is a condition of skewness shown below that if it is positively skewed then median is less than mean and if it is negatively skewed then median is more than mean which has clearly shown in the table. It also indicates it helps in cross-checking the authenticity of data.

Positive: Mean > Median

Negative: Mean < Median

Kurtosis measures the degree to which distribution has more or less peaked than a normal distribution. Positive kurtosis indicates a relatively peaked distribution. Negative kurtosis indicates a relatively flat distribution. A normal distribution has a kurtosis of 3. Here the value of Kurtosis is -0.64, -0.66, -0.21, -0.47 and -0.57 respectively for ONGC, GAIL, Petronet LNG, Oil India, and IGL.

Skewness and kurtosis are essential because few investment returns usually have distributed. Investors often predict future returns based on standard deviation, but such forecast assumes a normal distribution: an investment's skewness and kurtosis measure how its distribution contrast from a normal distribution and therefore indicate the reliability of predictions based on the standard deviation.

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Further, the stock data for the said companies have analysed by using **Wilder's Relative Strength Index**. Relative Strength Index is the most common and trusted technical indicator for explaining the movement and growth of the companies. **Jain (2014)**[xi] Proved the relevance and reliability of RSI tool and its implementation by applying it on 30 actively traded stocks of Bombay Stock Exchange and made understand the law of demand and supply with investor sentiments. It is one of the most valuable tools to regulate overbought/oversold levels as it helps in analysing the recent performance of security about its price history. **Jain (2014)**[xii] Focussed on the show the share price movements across a reference point from one extreme to another and to determine the position of buy and sell decision by investor by using RSI indicator and found that this tool is quite dependable for trading in share market as it gives positive results in general. The RSI value will always move between 0 and 100; the value will be 0 if the stock falls on all 14 days, and 100 if the price moves up on all days. As suggested by J Welles Wilder, the developer of this barometer, most technical analysts consider the RSI value above 70 as 'overbought zone' and below 30 as 'oversold zone'. However, investors and traders need to adjust these levels according to the inherent volatility of the scrip.

In this paper, signals are only taking in the direction of the trend with the following conditions:

- Go long, in an uptrend, when RSI falls below 30 and rises back above it.
- Go short, in a downtrend, when RSI rises above 70 and falls back below it.

In the column of 14-day RSI in Table 3, the red cells show oversold zones; green cells show overbought zones and white cells shows hold the position.

According to Wilder, divergences signal a potential reversal point because directional momentum does not confirm the price. A bullish divergence occurs when the underlying security constructs a lower-low, and RSI forms a higher low. RSI does not confirm the lower low, and this shows strengthening momentum. A bearish divergence forms when the security records a higher-high and RSI forms a lower-high. RSI does not confirm the new high, and this shows weakening momentum.

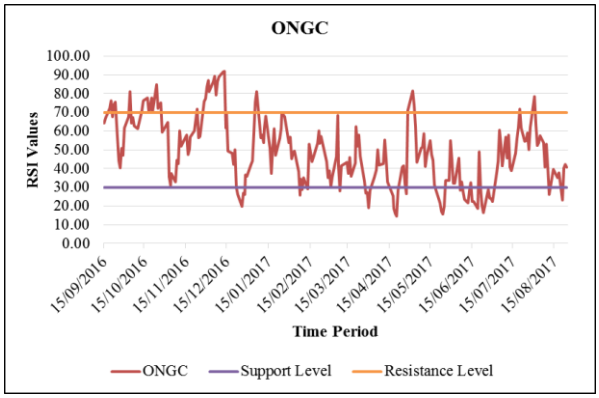

Figure 3: Shows the Relative strength index of Oil and Natural Gas Corporation

RSI forms patterns, such as triangles or head and shoulders tops and bottoms. Break-outs from these patterns on the daily chart often precede the price break-out by one or two days -- providing the swing trader valuable beforehand notice. Figure 3 shows ONGC with a bullish divergence during 19th-20th September 2016. The stock indicates in overbought zone till 23rd September 2016, but then suddenly it falls by US $0.10/- on 26th September 2016, moving the value of RSI from US $ 1.09 to US $ 0.65, but within next few days on 4th October 2016 the value of RSI reached at 81.21 by reaching the stock value of US $ 2.54, it was the overbought zone as the very next day, the price again falls to US $ 2.48 keeping RSI at 64.25. Overall the stock was able to maintain bullish situation till 1st November 2016 as the stock value reached as high as US $ 2.69. On 3-11-2016 RSI reached at 30.94 at the closing price of US $ 2.55, almost oversold zones which indicate the buying position of shares to generate profits. After this, the share value goes up to US $ 2.97 at RSI of 91.82 (completely overbought zone by breaking resistance levels) and comes to US $ 2.7 on 26-12-2016 showing RSI at 19.91 indicating buying of shares for sure profits. The RSI values are prevalent because of its accurate indication as in this case also, the shareholders generate profits by buying this share on 26-12-2016 and may sell the shares on 06-01-2017 at US $ 2.9 by indicating RSI at 81.27, after weekend on Monday (09-01-2017), the share closed at US $ 2.83; again RSI prediction saved investors from loss and make them sell shares on high price. The scrip was moving in a momentum showing fascinating trading movements during the period of last one year. On 24-05-2017, RSI was 15.69 showing stock at a meagre price after a long time at US $ 2.51. During June 2017, the stock was almost in oversold zone giving buying indications at a low price all over the month. In August 2017 also, the stock shows nearby oversold territory but not indicating buying instead advised to wait for a while.

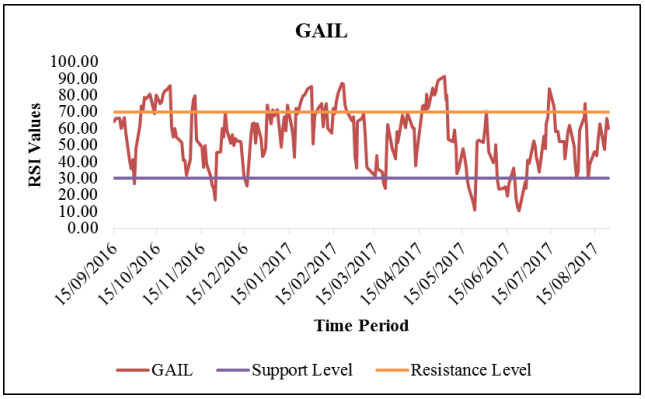

Figure 4: Showing the Relative strength index of GAIL (India) Limited

Figure 4 shows the RSI index for Gail (India) Limited throughout one year. The chart was moving in a regular flow but went into an oversold zone on 29-09-2016 at a closing price of US $ 3.85 (noticed at 52-week low) but rise immediately the very next day at US $ 3.97 to US $ 4.7 by 24-10-2016. The sudden fall of the stock price

on 29-09-16 because of disclosure of weak Q1 results: profit after tax (PAT) after excluding one-time gains has seen a growth of 21% in Q1 June 2017 over Q1 June 2016. There was a one-time gain of US US $ 70.70 millions in Q1 June 2017 from stake sale in Mahanagar Gas. The growth in the bottom line has led by the better performance of Gas Transmission & LHC segment, better price realisation in LHC segment & decrease in cost of production and finance cost.[xiii] After then, the scrip maintains back its average pace, and a sudden fall was observed on 24-11-2016 at RSI value of 17.08 with the closing price of US $ 4.26 showing it in oversold zone and immediate recover on 25-11-16 at RSI value of 45.34 with the closing price of US $ 4.42. The variance of 2-3% is sufficient to change the direction of the market from one zone to another.

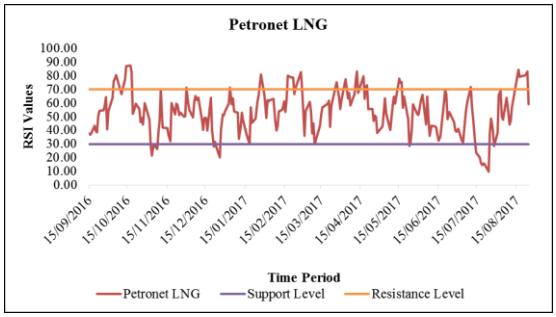

Figure 5: Showing the Relative strength index of Petronet LNG Limited

Figure 5 shows the RSI index for Petronet LNG Limited throughout one year. It shows the variance in scrip prices as normally distributed indicating maximum overbought zone at RSI value of 87.40 with the closing price of US $ 2.91 on 17-10-2016 and maximum oversold zone at RSI value of 9.65 with the closing price of US $ 2.93 on 24-07-2017. During this period the script creates its new support level over the old resistance level, that means technically the scrip of Petronet LNG Limited crossed or breaks the Circuit and creates new bands throughout one year.

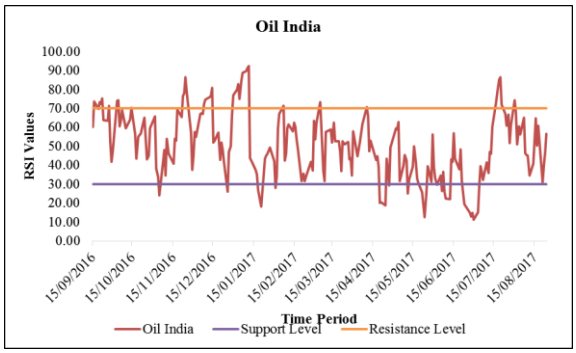

Figure 6: Showing the Relative strength index of Oil India Limited

Figure 7 shows some circuit breakers during the period of said one year. In the first months, the scrip crossed resistance level at an average pace showing overbought zones but then the variation was at a significant pace. As it is shown clearly in the chart, the interest of the investors and traders increased in purchasing more and more shares for Oil India Limited and raised the price of shares to form US $ 4.54 at RSI of 26.00 on 26-12-2016 to US $ 5.11 at RSI of as high as 92.39 on 11-01-2017 by creating new support level. Then, the script again went to oversold zone at RSI of 18.14 on 20-01-2017 with closing price US $ 4.61. The maximum change was seen on 10-03-2017 with a change of 3.08% by closing the market value at US $ 4.83 as compared to US $ 4.69 on 09-02017. The maximum oversold zone during this period was shown at RSI value of 11.34 on 30-06-2017 with the closing price of US $ 3.75, and the maximum overbought zone was shown at RSI value of 92.39 on 11-01-2017 with the closing price of US $ 5.11.

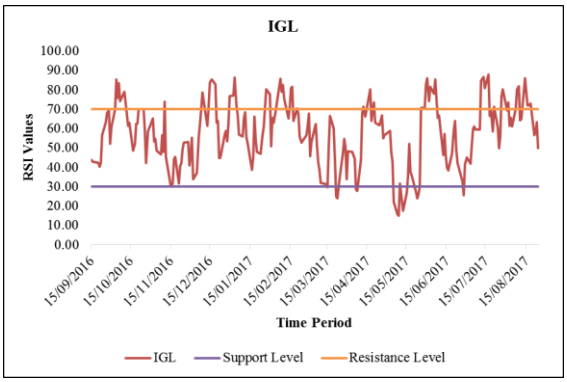

Figure 8: Showing the Relative strength index of Indraprastha Gas Limited

Figure 7 shows the momentum variations in the scrip of Indraprastha Gas Limited throughout one year. A scrip going in regular momentum suddenly showed overbought zone at RSI value of 85.48 on 04-10-2016 with the closing price of US $ 12.06 as compared to the closing price of US $ 11.38 on 03-10-2016. The reason behind that was the impact of the announcement made by the Government regarding the reduction in natural gas price for industrial use by 18% (also approved by the National Democratic Alliance).[xiv]

V. CONCLUSION

From the above analysis, it has finally concluded that though the oil drilling and exploration put adverse effects on the environment but still the companies engaged in this process is performing well. The overall descriptive analysis, as well as RSI indicator which give internal financial strength of company, signifies the balance working of all these organisations and show the contribution for economomic wealth growth for the Nation. The sudden fall or rise in the market price of these companies is affected by numerous factors like market news, political issues, and Global information. As stated in the study. The analysis further found the balanced growth of these organisations besides all the adverse effects of oil drilling and exploration as they are performing well by keeping in view all the suggestive measures for the benefit of India's economic environment.

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ANNEXURE: A

Table 3 shows the Relative Strength Index for each day by 14-day RSI technique from 29th August 2016 to 24th August 2017.

Table 3: Showing RSI values for the period

Date	ONGC	GAIL	Petronet LNG	Oil India	IGL
29-08-2016					
30-08-2016					
31-08-2016					
01-09-2016					
02-09-2016					
06-09-2016					
07-09-2016					
08-09-2016					
09-09-2016					
12-09-2016					
14-09-2016					
15-09-2016	64.20	64.10	37.85	60.37	43.67
16-09-2016	66.75	66.20	36.61	73.67	42.99
19-09-2016	71.96	66.24	43.42	69.61	42.61
20-09-2016	76.23	60.18	39.48	73.32	42.08
21-09-2016	67.82	62.81	38.50	72.49	40.18
22-09-2016	73.90	66.41	50.39	75.38	42.49
23-09-2016	75.34	57.06	54.30	63.77	56.53
26-09-2016	44.15	40.55	54.78	63.57	63.32
27-09-2016	40.42	35.58	58.38	71.34	68.05
28-09-2016	50.81	41.29	64.28	52.67	69.42
29-09-2016	47.14	26.77	40.59	41.98	52.27
30-09-2016	61.78	47.73	53.63	47.34	60.92
03-10-2016	67.81	61.28	63.97	74.19	70.07
04-10-2016	81.21	73.65	76.13	74.36	85.48
05-10-2016	64.25	70.26	78.01	60.66	75.72
06-10-2016	67.28	78.53	80.51	63.46	83.46
07-10-2016	62.61	77.78	77.38	69.27	74.29
10-10-2016	61.46	80.65	66.40	59.49	78.89
13-10-2016	70.97	69.02	77.48	64.30	61.48
14-10-2016	76.27	79.95	86.89	70.56	62.92
17-10-2016	77.88	75.01	87.40	56.68	48.65
18-10-2016	69.82	75.83	82.61	43.36	52.27
19-10-2016	73.36	80.61	52.01	55.02	62.48

20-10-2016	77.73	82.59	54.19	56.08	62.85
21-10-2016	69.97	82.97	59.38	56.55	70.19
24-10-2016	84.89	85.62	55.49	65.22	70.01
25-10-2016	72.30	60.38	46.16	54.30	69.93
26-10-2016	74.06	54.79	49.03	43.20	58.80
27-10-2016	75.07	59.95	44.09	45.29	42.34
28-10-2016	59.39	54.69	60.11	59.74	58.47
01-11-2016	64.60	51.78	47.79	65.86	65.38
02-11-2016	35.30	40.67	28.72	38.08	53.46
03-11-2016	30.94	41.03	21.62	33.96	54.74
04-11-2016	37.21	31.73	29.93	24.12	48.47
07-11-2016	32.90	41.18	26.28	41.97	46.77
08-11-2016	44.50	69.34	38.15	48.14	56.70
09-11-2016	42.64	77.11	47.13	34.55	48.10
10-11-2016	60.28	79.47	69.94	53.91	73.78
11-11-2016	52.09	52.81	41.84	46.27	45.50
15-11-2016	57.97	48.56	41.65	40.92	30.20
16-11-2016	47.39	36.84	36.29	54.03	31.52
17-11-2016	50.34	49.80	31.76	52.93	44.13
18-11-2016	56.77	38.31	60.14	69.52	45.34
21-11-2016	60.02	31.45	51.66	65.36	31.64
22-11-2016	66.09	25.69	59.63	76.66	40.49
23-11-2016	71.75	23.83	58.52	78.03	42.08
24-11-2016	56.47	17.08	51.03	86.67	49.66
25-11-2016	57.31	45.34	53.15	78.87	52.65
28-11-2016	75.89	45.81	49.87	57.23	53.05
29-11-2016	77.37	60.21	50.36	37.73	40.79
30-11-2016	83.63	54.71	71.46	45.22	46.50
01-12-2016	87.09	70.04	59.52	57.77	55.48
02-12-2016	81.27	58.98	54.57	54.98	33.79
05-12-2016	86.39	51.03	49.53	67.27	36.99
06-12-2016	89.28	56.26	60.58	67.49	55.37
07-12-2016	79.16	49.92	65.10	67.08	62.27
08-12-2016	86.30	53.80	61.95	72.55	69.94
09-12-2016	88.91	52.63	63.86	74.79	78.69
12-12-2016	91.54	52.00	47.60	75.93	65.57
13-12-2016	91.82	41.78	40.37	76.83	61.37
14-12-2016	61.51	31.37	49.21	80.84	71.25

15-12-2016	69.53	28.19	48.85	52.00	83.90
16-12-2016	49.14	25.47	40.05	53.14	85.42
19-12-2016	48.05	55.76	64.09	57.16	82.98
20-12-2016	42.16	62.66	39.90	42.95	63.06
21-12-2016	50.12	63.18	27.87	52.02	64.00
22-12-2016	29.96	50.90	31.59	48.16	44.73
23-12-2016	26.16	62.72	27.89	42.01	45.23
26-12-2016	19.91	54.06	20.02	26.00	56.86
27-12-2016	26.93	43.38	40.93	47.13	58.75
28-12-2016	26.07	45.16	51.53	50.02	53.54
29-12-2016	36.59	48.16	51.31	66.63	62.71
30-12-2016	35.68	74.25	54.10	77.07	76.65
02-01-2017	42.03	62.79	59.47	80.09	77.18
03-01-2017	43.92	71.23	71.37	82.88	86.37
04-01-2017	58.92	67.37	59.06	75.04	71.64
05-01-2017	75.68	70.39	63.42	84.70	66.77
06-01-2017	81.27	71.04	53.73	88.70	56.91
09-01-2017	56.42	48.59	53.18	89.97	55.93
10-01-2017	57.97	59.90	33.83	91.50	65.21
11-01-2017	53.80	66.99	42.37	92.39	68.60
12-01-2017	61.78	58.60	53.01	43.83	55.54
13-01-2017	68.00	73.96	47.50	41.76	52.42
16-01-2017	50.92	61.74	36.76	37.66	38.83
17-01-2017	37.19	56.14	33.85	35.25	45.03
18-01-2017	51.58	42.94	30.02	27.01	66.16
19-01-2017	61.24	72.08	56.86	23.50	54.29
20-01-2017	46.97	69.06	45.55	18.14	47.86
23-01-2017	56.12	77.19	48.72	43.33	47.13
24-01-2017	61.44	79.43	60.81	45.16	56.52
25-01-2017	70.05	80.30	65.34	46.15	60.64
27-01-2017	67.81	84.06	80.92	49.50	80.19
30-01-2017	53.85	85.08	65.34	42.04	77.88
31-01-2017	56.72	50.59	49.11	28.03	50.77
01-02-2017	45.17	67.68	62.31	34.09	65.63
02-02-2017	48.70	69.92	61.32	59.50	62.98
03-02-2017	49.31	71.78	62.11	67.05	68.55
06-02-2017	38.37	74.95	62.84	71.37	81.49
07-02-2017	25.83	61.01	46.97	42.49	85.72

08-02-2017	34.21	70.75	39.82	46.12	78.90
09-02-2017	28.79	74.93	43.48	59.58	82.59
10-02-2017	35.08	60.20	53.78	61.65	75.38
13-02-2017	29.20	57.07	55.14	57.78	65.20
14-02-2017	52.95	72.20	61.22	62.56	71.00
15-02-2017	48.62	68.75	53.45	60.34	80.94
16-02-2017	43.67	76.56	62.43	53.72	81.65
17-02-2017	46.04	81.14	80.20	48.90	63.92
20-02-2017	53.25	87.07	78.80	31.58	70.32
21-02-2017	60.13	86.83	78.95	35.59	67.42
22-02-2017	53.54	74.10	66.68	31.68	56.11
23-02-2017	57.08	70.74	70.91	33.97	52.90
27-02-2017	43.83	64.77	82.59	41.73	56.51
28-02-2017	35.03	67.18	70.51	37.21	61.35
01-03-2017	38.94	43.31	54.15	63.67	67.98
02-03-2017	30.38	36.22	35.75	53.62	45.73
03-03-2017	35.64	64.27	54.23	62.50	53.22
06-03-2017	46.28	66.22	60.73	73.35	62.27
07-03-2017	68.40	68.95	53.57	58.76	51.21
08-03-2017	41.01	56.06	37.60	36.97	42.43
09-03-2017	27.93	37.72	44.99	31.68	38.70
10-03-2017	41.42	36.24	29.58	57.59	31.98
14-03-2017	43.42	32.44	43.57	59.07	31.29
15-03-2017	37.23	31.61	51.20	51.90	29.83
16-03-2017	45.87	43.86	57.04	62.40	50.46
17-03-2017	35.97	35.71	57.22	52.53	66.62
20-03-2017	43.06	34.02	59.39	52.53	60.09
21-03-2017	62.29	26.30	61.87	47.49	43.98
22-03-2017	51.91	24.15	42.45	36.77	25.06
23-03-2017	57.98	52.80	57.89	52.57	24.03
24-03-2017	46.82	62.46	61.60	50.90	32.95
27-03-2017	33.08	47.38	75.44	52.38	47.65
28-03-2017	26.69	45.24	69.16	43.22	54.77
29-03-2017	27.12	41.77	64.52	43.75	50.48
30-03-2017	18.88	57.96	55.56	34.75	33.81
31-03-2017	28.47	51.49	62.11	58.10	48.23
03-04-2017	35.27	68.06	77.31	44.69	47.90
05-04-2017	39.24	60.46	63.59	52.69	44.41

06-04-2017	50.06	68.29	67.39	57.20	28.44
07-04-2017	41.98	68.29	58.22	61.98	27.93
10-04-2017	42.47	60.68	66.67	70.72	43.97
11-04-2017	55.44	60.23	76.77	66.01	67.83
12-04-2017	45.21	37.74	83.13	47.45	71.29
13-04-2017	32.93	43.49	67.40	52.85	66.08
17-04-2017	25.39	73.75	79.54	42.78	80.44
18-04-2017	18.76	73.81	63.12	44.78	64.04
19-04-2017	16.12	70.94	71.96	39.06	70.20
20-04-2017	14.43	80.67	73.18	20.09	73.64
21-04-2017	28.48	72.30	55.73	20.42	63.04
24-04-2017	40.86	84.12	55.57	18.82	61.83
25-04-2017	41.38	80.31	46.66	43.54	64.46
26-04-2017	31.85	81.78	50.77	36.56	66.91
27-04-2017	26.52	85.64	50.05	29.37	54.94
28-04-2017	70.89	88.77	38.05	49.34	56.46
02-05-2017	81.57	91.13	42.89	59.70	59.00
03-05-2017	74.18	77.34	53.36	58.98	47.74
04-05-2017	62.47	80.23	63.51	62.84	42.72
05-05-2017	43.16	53.23	52.62	31.82	22.01
08-05-2017	50.97	51.83	40.27	39.78	15.71
09-05-2017	51.54	59.20	49.46	45.56	14.86
10-05-2017	58.74	48.52	58.31	42.47	31.68
11-05-2017	41.16	32.96	64.96	25.04	25.85
12-05-2017	46.76	35.44	59.33	32.45	17.67
15-05-2017	54.75	47.96	78.09	39.33	27.00
16-05-2017	47.42	42.50	74.92	49.97	35.61
17-05-2017	44.47	36.46	75.35	41.42	52.14
18-05-2017	31.27	30.40	56.49	33.03	37.50
19-05-2017	28.81	25.10	64.76	30.59	35.72
22-05-2017	21.68	15.44	47.98	25.90	27.21
23-05-2017	17.19	10.82	28.34	19.31	24.10
24-05-2017	15.69	35.49	31.70	12.66	26.25
25-05-2017	19.76	51.85	40.43	25.63	29.90
26-05-2017	33.68	52.91	58.96	39.42	70.75
29-05-2017	33.68	51.80	51.96	31.41	70.75
30-05-2017	54.87	59.29	51.25	56.39	82.86
31-05-2017	44.89	70.46	55.52	39.17	85.93

01-06-2017	31.98	61.64	61.12	33.39	74.26
02-06-2017	31.98	46.16	66.08	29.72	81.46
05-06-2017	45.61	39.55	44.29	34.46	78.07
06-06-2017	28.47	41.66	64.81	26.27	85.54
07-06-2017	32.78	50.37	48.43	36.53	75.08
08-06-2017	27.68	29.80	35.83	25.92	65.56
09-06-2017	23.64	23.55	43.28	22.34	66.93
12-06-2017	21.64	24.20	42.77	22.05	46.28
13-06-2017	28.03	25.14	41.87	43.05	57.40
14-06-2017	32.51	24.34	37.00	41.86	45.84
15-06-2017	22.46	19.24	32.33	56.96	40.09
16-06-2017	22.46	26.63	35.53	43.64	38.32
19-06-2017	18.47	36.04	60.42	37.90	47.00
20-06-2017	49.11	26.28	69.45	48.39	59.54
21-06-2017	29.81	18.48	65.94	31.82	64.12
22-06-2017	20.06	12.97	48.34	25.35	48.93
23-06-2017	16.50	10.24	53.22	19.44	42.12
27-06-2017	28.68	27.60	45.86	15.05	32.61
28-06-2017	24.34	23.88	40.00	12.85	25.47
29-06-2017	23.75	40.71	38.97	14.76	41.63
30-06-2017	22.29	39.20	41.37	11.34	45.05
03-07-2017	37.64	52.69	32.38	15.16	41.75
04-07-2017	43.68	48.61	31.27	28.92	51.49
05-07-2017	60.60	43.23	40.69	39.61	59.97
06-07-2017	53.19	39.61	54.68	36.43	61.13
07-07-2017	41.39	33.92	60.53	32.45	59.55
10-07-2017	56.96	55.53	71.70	41.39	59.46
11-07-2017	45.59	48.04	56.85	36.01	84.84
12-07-2017	57.98	62.77	48.23	47.14	85.67
13-07-2017	40.75	66.63	32.45	46.14	86.68
14-07-2017	38.79	83.74	23.71	60.35	80.87
17-07-2017	48.21	73.21	19.98	72.98	87.98
18-07-2017	56.20	58.11	16.27	78.43	66.49
19-07-2017	61.87	58.55	14.35	85.11	69.49
20-07-2017	71.69	58.05	15.93	86.57	58.64
21-07-2017	61.50	52.21	14.61	72.06	71.26
24-07-2017	54.55	52.21	9.65	67.01	60.41
25-07-2017	54.84	41.60	37.94	61.02	50.03

26-07-2017	59.19	49.50	48.52	66.76	55.98
27-07-2017	49.94	58.59	40.35	51.80	76.70
28-07-2017	62.11	62.01	28.58	61.35	80.15
31-07-2017	78.31	49.27	38.04	74.34	69.51
01-08-2017	63.94	40.13	66.18	67.80	73.54
02-08-2017	52.23	30.67	69.07	51.11	61.57
03-08-2017	53.78	33.81	50.55	60.41	65.54
04-08-2017	57.70	58.97	47.63	56.32	61.24
07-08-2017	53.72	67.13	63.94	65.01	70.37
08-08-2017	40.69	75.20	57.33	46.53	80.40
09-08-2017	53.12	59.44	44.15	45.56	81.94
10-08-2017	40.82	30.20	47.02	45.18	64.38
11-08-2017	25.95	38.67	56.91	34.53	65.08
14-08-2017	39.57	45.88	71.94	40.78	86.02
16-08-2017	36.56	43.59	84.46	64.74	72.00
17-08-2017	35.04	54.32	79.32	50.35	72.00
18-08-2017	37.75	63.01	79.74	60.96	72.97
21-08-2017	23.06	47.57	80.16	30.94	56.72
22-08-2017	40.44	54.44	80.45	39.88	58.34
23-08-2017	42.17	66.19	83.20	46.60	63.29
24-08-2017	40.72	60.16	59.04	56.68	49.99

* Closing Prices were taken from the website of National Stock Exchange of India (in INR)

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