A Study on Impact of Crude Oil Prices on Indian Economy with Special Reference to Lower and Middle Class Family

[1]Sumeet S and [2]Shivaprasad B S,
[1]Research Scholar , JAIN (Deemed-To-Be University), Bengaluru, India
[2]Assistant Professor, Jain Institute of busipess Management, Kannakapura, India

Abstract: Oil is a very popular term and probably the most in demanded product currently in the market. With fluctuations in its price and ever increasing demand had made our country dependent on its import. With an increase in the price of oil and its products expenses of a common man also increases. The effect has gone to extent were it has become difficult for a common man to think of owning a private vehicle. This paper with an objective to understand the impact of crude oil prices on Indian economy on a common man and also to analyze the impact of rising and falling oil prices on Indian economy found by statically testing the data through Statistical Packages for Social Science found that increase in demand of crude oil is the main reason for price hike and study employed two hypotheses out of which first hypothesis was accepted and the second was rejected.

Keywords: Oil, Price, Indian Economy, Common Man

I. INTRODUCTION

India being the third largest consumer in world with demand of crude oil rapidly increasing and is always expected to grow. India almost imports 83% of its crude oil needs and its consumption is close to 4700 barrel per day. Indian economy consists largely of middle and lower class people with less than 5 lakh of income for a normal working class individual. The below chart shows the price movement in crude oil prices in US dollar and as of july 2019 it is close to$56 per barrel.

The recent ups and downs in crude oil prices in India have grabbed attention and with increase in tax rate in Karnataka it has been a major concern for middle and lower class working people. A little relief and stable price has been done when India entered into contract with UAE instead of buying in dollar which is major trade boost.

Not just India crude oil prices all across the globe have a significant impact either directly or indirectly. Any changes in prices will have both positive or negative impact and India being one of the major consumers of crude oil it's important to know the level of impact it creates on middle and lower working class people.

A. What is Crude Oil?

It is a dark brown flammable liquid which derives from fossil fuels. It is then refined into some large consumable products like petrol, kerosene, plastics and pharmaceuticals.

B. When OIL prices move up?

- Negative impact on GDP
- More import and less export
- Decreasing Share market
- Low level of investment
- Increase in inflation
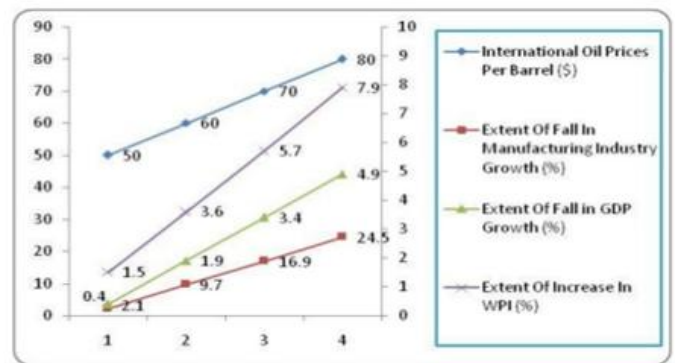
C. Calculation of Oil Prices in India

Basic Price: Rs. 37.33

Excise duty: Rs. 16.55

Education Tax: Rs. 0.48

Dealer commission: Rs. 1.50

VAT: Rs. 6.5

Crude Oil Custom duty: Rs. 2.1

Petrol Custom: Rs 3.54

Transportation Charge: Rs. 8.48

Total price: Rs 76.48

D. Objectives of the study

1. To study the impact of crude oil prices on Indian economy in brief
2. To study the impact, it creates on middle lower working class

E. Scope of the study

1. Analysis used to compare effect of crude oil price in Indian economy
2. Analyse the trend in Indian oil prices

II. REVIEW OF LITERATURE

B Hicks and Kilian, 2013 developed a structural model and found a positive demand fro all industrial commodities. **Munner and Asif**, 2007 found that for a human life supply of energy is very crucial and concluded that only renewable energy is the solution. **R Edinger and Becker**, 2005 said that Indian government is brining marginal lands in order to support bio-diesel. **Ramcharran**,2002 found the reason for change in failing oil prices over a decade found a way a providing better framework using a good competitive model. **S Gosh**, 2009 studied the long run equilibrium relationship among income and crude oil prices and found some unidirectional long run causalities.

A. Research Gap

Gap 1: A lot of study has been done on crude oils impact of Indian Economy but not much is been done on a specific group of people, individual or a economy class.

Gap 2: Many study focus of on positive and negative impact on overall economy but no studies shows the impact on income level of middle and lower working class.

III. RESEARCH METHODOLOGY

The present research study is based on Exploratory research to understand the critical area of were the problem lies.

A. Method of Data Collection

- For the study the data will be collected both through primary and secondary method.
- Primary data collection through a self-administered questioner with 10 items and
- Secondary data collection through journals, magazines, new paper and various authenticated websites.

B. Sample Size and Data Collection

The study was conducted on a sample size of 100 respondents whose income level was less than 5 lakhs per annum. The data were collected through a self-administered questionnaire from middle and lower working class professionals based out in Bengaluru city. The data would be analysed using SPSS software and tools employed are KMO and Bartlett's Test, Cronbach's Alpha and Chi-Square Test.

C. Research Question

- Does ups and downs in crude oil prices impact the income level?
- What is the level of impact of crude oil prices on Indian economy?

D. Research Hypothesis

H1: There is a significant relationship between price hike perception of Indian consumer and reason for price hike of crude oil

H2: There is a significant relationship between mode of vehicle and average consumption of petrol and diesel in a month
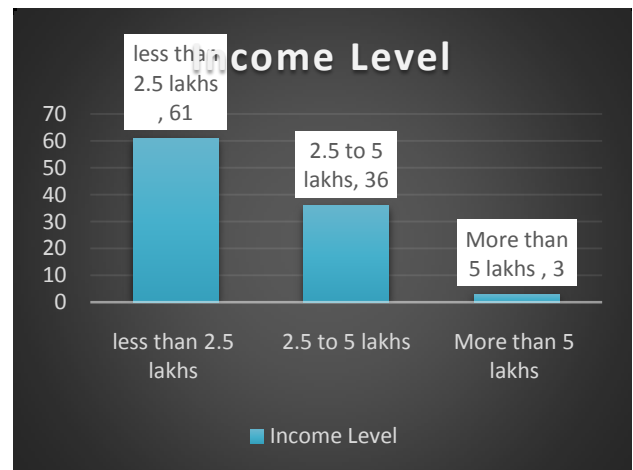
IV. DATA ANALYSIS AND INTERPRETATION

A. Respondents Profile

The below pie diagram shows the out of the total respondent 63% were male and remaining 37% were female respondents out 100 respondents.
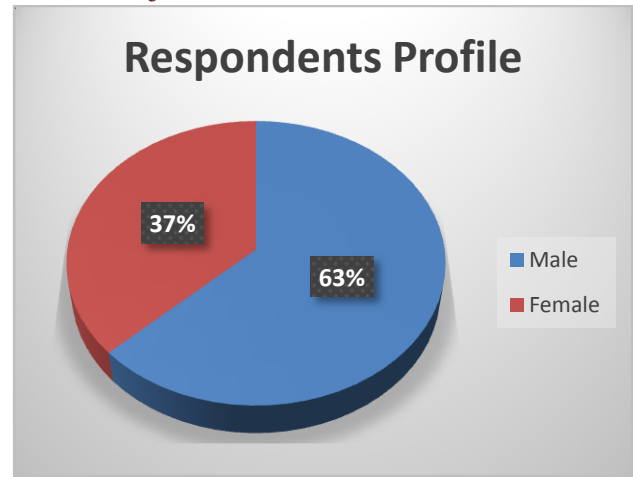
B. Income Level

The research study was conducted on middle and lower class people; the above bar graph shows that the majority of respondents belong to income level of less than 2.5 lakhs that is 61% of the sample size and close to 36% belong to 2.5 t0 5 lakhs of income per annum.

C. KMO and Bartlett's Test

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.890
Bartlett's Test of Sphericity	Approx. Chi-Square	99.420
	Df	45
	Sig.	.000

The above table shows KMO value to be 0.890 which is much above the acceptable value which make the data for suitable.

D. Cronbach's Alpha

Cronbach's Alpha	N of Items
.762	10

The alpha coefficient for the items is .762, suggesting that the items have relatively high internal consistency. (Note that a reliability coefficient of .70 or higher is considered "acceptable" in most social science research situations.

E. Chi Square Test

1. The below Chi- Square test was done to test the hypothesis "There is a significant relationship between price hike perception of Indian consumer and reason for price hike of crude oil".

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.824[a]	6	.701
Likelihood Ratio	4.320	6	.633
Linear-by-Linear Association	1.053	1	.305
N of Valid Cases	100		

a. 6 cells (50.0%) have expected count less than 5. The minimum expected count is .05.

The above table indicate chi-square value of 0.701 which is more than acceptable value of 0.05.

2. The below Chi- Square test was done to test the hypothesis "There is a significant relationship between mode of vehicle and average consumption of petrol and diesel in a month"

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.073[a]	6	.006
Likelihood Ratio	18.187	6	.006
Linear-by-Linear Association	4.454	1	.035
N of Valid Cases	100		

a. 7 cells (58.3%) have expected count less than 5. The minimum expected count is .09.

The above table indicate chi-square value of 0.006 which is less than acceptable value of 0.05.

F. Results of hypothesis testing

Hypothesis	Chi-Square Value	Accept/ Reject
H1: There is a significant relationship between price hike perception of Indian consumer and reason for price hike of crude oil.	.701	Accepted
H2: There is a significant relationship between mode of vehicle and average consumption of petrol and diesel in a month	.006	Rejected

The above table shows that out of the two hypothesis employed in the study, that first hypothesis that is "There is a significant relationship between price hike perception of Indian consumer and reason for price hike of crude oil" is been accepted and the second hypothesis "There is a significant relationship between mode of vehicle and average consumption of petrol and diesel in a month" has been rejected.

FINDINGS

The study found that the main reason for price hike was due to increase in demand of crude oil and also mainly due to heavy import duty being employed. Secondly the study found that nearly 70% of the respondent spend close to 5%-10% of their salary on petroleum product. Thirdly the study also showed out of 37% of female respondent majority of them spend money on consumption of LPG.

CONCLUSION

The study was done with and objective to find the impact of crude oil prices on middle and lower class people of Bengaluru found that increase in demand is the main reason for price hike. The study employed two hypotheses and the statistical results showed that one hypothesis that is "There is a significant relationship between price hike perception of Indian consumer and reason for price hike of crude oil" is been accepted and the second hypothesis "There is a significant relationship between mode of vehicle and average consumption of petrol and diesel in a month" has been rejected. The study also adds to the literature and would set a base for future research

RECOMMENDATION FOR FUTURE RESEARCH

The study focused mainly on middle and lower income class people of Bengaluru city. Firstly, the study can be expanded on other major city of India. Secondly the study can be done in rural background to study impact it creates on them and finally the study can also be done on one particular petroleum product.

References

[1] Bhattacharya, Kaushik and Bhattacharya, Indranil _Impact of Increase in Oil Prices on Inflation and Output in India ', Economic and Political Weekly

[2] Dermot and Hiland,2001," The Asymmetric effects of changes in price and income on oil demand.

[3] Ghosh, Sajal (2010), ―High speed diesel consumption and economic growth in India‖,

[4] Petroleum planning and analysis cell (Petroleum Planning & Analysis Cell), New Delhi, www.Petroleum planning & analysis cell.org