

AN EVALUATING THE IMPACT ON RISING FUEL PRICE ON CONSUMPTION IN BELAGAVI

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Abstract

India has surpassed China as the world's third largest importer of crude oil, surpassing it in mid-2020, and imports more than 84% of its oil requirements. India, as one of the world's largest and fastest-growing energy importers, has relied significantly on crude oil for both energy production and consumption. Historically, rising fuel costs and rising demand for gasoline have been difficult for the general people. This explores activities to discover the sources and effects of escalating charges these days, which are harming the entire financial system, and to provide ways to deal with this externality. This paper attempts to find out the assertive analysis of the effect on fuel price rising in consumption Belagavi city of Karnataka state. The data for the study is collected through Questionnaire with 154 sample sizes of Belagavi people and SPSS is used for analysing the collected data. Finally this research paper which helps to analyse the impact on Rising Fuel Price in Belagavi City proves so and it gives the further researcher to analyse or study over comparison of fuel prices and electrical Vehicles or even public transport system. The analysis found that the increasing fuel price would have a devastating impact on the transportation sector. The government should preserve those sectors which exposed the largest impact from the increasing of the fuel price.

Keywords: Fuel Pricing, Crude Oil, Indian Economy, Import and Export, etc.

1. Introduction

International fuel prices have demonstrated a substantial volatility in recent years. Fuel prices are galloping upwards and reaching record highs sparking uproar across the country. Prices of petrol and diesel are climbing to an all-time high leaving businesses and the general public baffled. The ever-increasing prices of fuel are impacting various industries causing huge losses to countless businesses. Experts predict that rising fuel prices will have a negative impact on overall economic growth, as it will lower consumer spending, make way for smuggling, and possibly lead to political turmoil.

Fuel prices have increased dramatically in recent months, which have greatly affected the country's mobility. For instance, the logistics sector has been hit very hard by the current economic situation. The sector was initially impacted by the pandemic blues and now the fuel prices have further exacerbated its difficulties. As fuel prices have skyrocketed, logistics startups have been compelled to increase their service costs, resulting in a decrease in demand. Because of the dismal condition of the logistics sector, many startups and well-established

businesses have been forced to shut down. What's more, increasing fuel costs have also affected freight owners, thereby affecting their profit margins.

Additionally, since many commodities and supplies that people use on a daily basis are shipped from all over the country, their prices are certain to rise even more. Likewise, the soaring price of fuel is also hitting the automotive sector which provides a large job base in the country. The increase in fuel prices is projected to have a detrimental influence on customers' willingness and ability to buy cars, causing them to postpone purchases. Consequently, this will trigger a sharp drop in vehicle sales, adding to the overall inflationary strain. Furthermore, reduced vehicle demand will have severe ramifications for the automotive industry as well as for the MSMEs that serve it. Last but not least, the hike in fuel prices has also crippled India's tourism sector, which was already struggling since 2020 because of the pandemic. To top it off, rising fuel prices have caused tourism costs to reach an unprecedented level, causing people to stay home.

The humongous spike in fuel prices will undoubtedly be detrimental to an economy still recuperating from the Covid-19-related disaster. This alarming situation requires the government, as well as stakeholders, to take appropriate measures in order to determine an alternative solution. Energy is always essential and the movement of people from one place to another. Nearly 1/4th of total energy used by human beings is for transportation and nowadays demand for petroleum is increasing day by day. A recent instance Fuel costs have risen since World War II, and fluctuations have had a substantial impact on the global economy. Fuel price shocks have a large worldwide economic impact, affecting both developed and developing countries (Canada & Perez de Garcia 2005). The current surge in petrol and diesel prices in India has focused everyone's attention on the impact of global crude oil prices and the government's petroleum taxation strategy. India's crude oil imports climbed by around 19.8% between 2014 and 2021.

For many years, energy has been a complex thing, with the question of how long humans can survive on current energy sources. Fuel is a common and influential source of energy, with the principal sources being fossil fuels, diesel, and a range of chemical compound fuels. The Global economy has been impacted by the recent growth in reliance on fuels, particularly fossil fuels. Fossil fuels, such as coal, gasoline, and diesel, have had an impact on people's lives in terms of rising pricing, fuel delivery, global warming, increased spending patterns, and the need to find reliable alternatives to these fuels. This is a familiar situation all across the world, notably in India, where newspapers and notifications on our cell phones have been overwhelmed with never-ending information about rising petrol and diesel costs.

Graph 1.1: Fuel price rising of petrol in Belagavi



Belgaum petrol price chart gives the ancient price report of petrol in the shape of graphical illustration from over the last couple of years 2015-2022. The modern-day petrol price in Belgaum is 101.67 per Liter. Petrol price hike in Belgaum is properly represented in the chart given above along with fuel prices of Belgaum. Current Belgaum petrol price per Liter is taken from Hindustan Petroleum Corporation Limited. Most of the cities such as metro towns, state capitals of India are covered here and a chart of each gasoline like petrol, diesel, car gas, CNG and LPG is created including petrol price chart of Belgaum. Petrol fee chartsof other cities can be explored.

2. Literature Review

- **Debjit (2021)**, According to the researcher he has found in this article, the price of the pump in our India is higher. Due to the increase of the price other countries are exporting petrol as well as diesel. Even there is a globally rebound in oil price because of the high rate of the price and our taxes are Same as it is high what the price consumer pays in our country the researcher has concluded with the inflection of the price.
- **Chakraborty (2021)**, the researcher has highlighted how the passenger as well as transporter were investigated the sale of petrol which they were used and the amount of the petrol or pump is still increasing due to the demand inflections. According to the survey the familiar people data through the top three retailers from the country data. The contribution to the people as lower sales to job cuts as the global covid-19 the difficult restrictions in the economy of India.
- **Shivarajan (2018)**, the researcher has focused on the decrease of the price the government can also pay. It was not relevant to put the blame on the increase of the price of rate. So from this article the researchers have concluded with the role of the government who plays the price of fuels in our country.
- **Nguyen thi Ngoc Trang (2017)**, in this article the researcher has highlighted the model of regression that found the Vietnam deficit in the higher budget due to the more increase of the price of the oil. Therefore the researcher has concluded that the unemployment and growth of domestic products was impacted.
- **Ghosh T (2016)**, the researcher has investigated the relationship among the price of oil and micro economic exchange rate. According to the structural vector-autoregression here they were used for the output, interest rate and price in the output, interest rate and price. In this article paper the researcher has highlighted with the great potential of oil price the production India and the devaluation of the Indian rupees deliberate was not more effective usage for RBI and the rupee value may have the long-term in the price of oil these are the main the important points in this article paper.
- **M.K. Anand (2016)**, in this article the researcher has focused on the main impact of the price of fuel increases which they have on the economy, mainly the sector of agriculture. In this article the researcher has investigated the direct and indirect effects in detail with the continued growth.
- **Akansha Sanjay Jain (2015)**, according to this article paper the researcher has investigated on the prediction of the price of petrol it was difficult to tell it may be increases or decreases in our Indian economy was being impacted.
- **Cavalcanti and Jalles (2015)**, in this article paper the researcher has focused on the impact of the price Of fuel in the macro-economy in this article it was investigated that the price were increases In the both countries the impact of positive inflection as well as the impact on the negative on Gross Domestic Product that is GDP

3. Research Design

❖ Statement of the problem:

Motor spirit is one of the critical issues in India due to the sudden price hike caused in the market. There are different and various factors which have caused it and this proposed Research paper aspires to make one of the efforts to analyze the inflation caused in the petroleum industry. Over all in the country and if the government plays the leading role in the hike of motor spirit and study also describe the impact caused on the common people of Belagavi in city Specific.

❖ **Research Methodology:**

In the study we relied on Primary data to do our research. For primary data Questionnaires were used to find out the impact of Rising Fuel price in Belagavi, and the collected data analyses with the help of Questionnaires. This Questionnaire was circulated in belagavi city with a sample size of 154 respondents. The collected data analysis tool was SPSS.

❖ **Objectives of study:**

- To find out impact of Rising fuel prices on consumption in Belagavi City.
- To find out Reasons behind Fuel price rising.

❖ **Research Gap:**

As per above topic mentioned Research topic and reviewed literatures it shows that Many researcher had studied over the price hike but This research paper is relatively towards the analysis of impact of raising fuel price in belagavi city of Karnataka in specific.

4. Results and Discussion

Table 2.0 Descriptive statistics of Respondents

Items	Particulars	No. Respondents	Percentage
Gender	Male	90	58.4%
	Female	64	41.6%
Age of respondent	18 - 25	111	72.1%
	26 - 35	38	24.7%
	36 - 45	4	2.6%
	46 - 60	1	0.6%
Annual Income	0 - 5 lakhs	124	80.5%
	5 - 10 lakhs	26	16.9%
	10 - 20 lakhs	3	1.9%
	Above 20 lakhs	1	0.6%
	2 wheeler	45	29.2%
	3 wheeler	12	7.8%
	4 wheeler	62	40.3%

Kinds of vehicle	6 wheeler	3	1.9%
	8 wheeler	3	1.9%
	2 wheeler, 3 wheeler	14	9.1%
	2 wheeler, 4 wheeler	15	9.7%
Vehicle used	Petrol	120	77.9%
	Diesel	34	22.1%

Rotation Component Matrix

Particulars	Components		
	1	2	3
satisfied with the pricing of the fuel		.723	.166
The fuel is too expensive per liter			.907
Do you feel it's expensive	.645		.378
Rising in the price can affect savings	.748		-.117
switch with public transportation because of price rising	.718	.105	-.158
Prefer electric vehicle because of price rising		.727	-.183

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Rotation converged in 4 iterations.

From the reduction factor analysis, it is clear evidence that from the view point of consumers, petrol price is affecting their savings; so they may shift to Electric Vehicles (EV).

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. Change
1	.144 ^a	.021	.001	1.395	.021	1.064	3	150	.366

a. Predictors: (Constant), Annual Income of respondent,

- b. Do you feel it's expensive?
- c. How frequently are you purchasing fuel on a weekly basis?

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.211	3	2.070	1.064	.366 ^b
	Residual	291.873	150	1.946		
	Total	298.084	153			

- a. Dependent Variable: Average purchasing fuel per week?
- b. Predictors: (Constant), Annual Income of respondent, Do you feel it's expensive?
- c. How frequently you are purchasing Fuel on weekly basis?

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Standard Error	Beta		
1.	(Constant)	2.073	.503		4.120	.000
	Feel it's expensive	.095	.405	.019	.235	.814
	Frequent purchasing of Fuel	.193	.138	.114	1.405	.162
	Annual Income of respondent	.199	.225	.072	.886	.377

- a. Dependent Variable: Average purchasing fuel per week?

From the above tables the 0.021 explains that there is an impact of 2 percent in average use of fuel. This is explained with the equation

$$Y (\text{avg. Fuel used}) = 2.073 (\text{constant}) + 0.095(\text{Fuel is expensive}) + 0.193 (\text{Frequent purchasing of Fuel}) + 0.199 (\text{Annual income})$$

That is 9.5% is influence of fuel being expensive, while 19.3% frequency of fuel purchase or fuel requirement and 19.9% the annual income of the customers.

	What is the ideal price According to you ____ fill in the blank? (Binned)
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		<= 50		51 - 67		68 - 83		84+	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Annual Income	0 - 5 lakhs	14	12.5%	49	43.8%	45	40.2%	4	3.6%
	5 - 10 lakhs	1	3.8%	9	34.6%	16	61.5%	0	0.0%
	10 - 20 lakhs	0	0.0%	1	33.3%	2	66.7%	0	0.0%
	Above 20 lakhs	0	0.0%	0	0.0%	0	0.0%	0	0.0%

The Above table Indicates that as per above analysis consumer Expectations feels that fuel is in the range of 51-83 (Rs). Irrespective of income level of the population. The ideal Price of the Fuel is Around 51 – 81 Rs so that it's not much impact on Annual Income.

Average purchasing fuel per week?			
		Frequency	Percent
Valid	100 to 200	15	9.7
	200 to 400	91	59.1
	400 to 600	7	4.5
	600 to 1000	2	1.3
	1000 and above	39	25.3
	Total	154	100.0

Ho: There is no association between annual income and average purchase of fuel.

Ha: There is association between annual income and average purchase of fuel.

As per above table indicates that Rs 200 to 400 is a maximum average purchase of Fuel per week and 1000 and above followed by Respectively.

Annual Income of respondent Average purchasing fuel per week? Cross tabulation							
		Average purchasing fuel per week?					Total
		100 to 200	200 to 400	400 to 600	600 to 1000	1000 and above	
Annual Income	0 - 5 lakhs	12	76	7	2	27	124
	5 - 10 lakhs	2	13	0	0	11	26
	10 - 20 lakhs	1	1	0	0	1	3

	Above 20 lakhs	0	1	0	0	0	1
Total		15	91	7	2	39	154

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.095 ^a	12	.695
Likelihood Ratio	10.063	12	.610
Linear-by-Linear Association	1.141	1	.285
N of Valid Cases	154		

a. 14 cells (70.0%) have expected count less than 5. The minimum expected count is .01.

From the table above, the sig value 0.695 > 0.05 proves to accept the Ho, and hence proves There is no association between annual income and average purchase of fuel.

Do you Agree price is neutral?			
		Frequency	Percent
Valid	Disagree	96	62.3
	Agree	53	34.4
	Strongly Agree	5	3.2
	Total	154	100.0

Ho: There is no association between annual income and acceptance of fuel price as neutral

Ha: There is association between annual income and acceptance of fuel price as neutral.

Annual Income of respondent					
Do you Agree price is neutral? Cross tabulation					
		Do you Agree price is Neutral?			Total
		Disagree	Agree	Extremely Agree	
Annual Income	0 - 5 lakhs	79	40	5	124
	5 - 10 lakhs	14	12	0	26

	10 - 20 lakhs	2	1	0	3
	Above 20 lakhs	1	0	0	1
Total		96	53	5	154

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3.338 ^a	6	.765
Likelihood Ratio	4.520	6	.607
Linear-by-Linear Association	.008	1	.927
N of Valid Cases	154		
a. 8 cells (66.7%) have expected count less than 5. The minimum expected count is .03.			

The chi-square test with the sig value 0.765 >0.05 proves to accept the Ho, and hence proves There is no association between annual income and acceptance of fuel price as neutral. The Chi-Square test shows that Ho is accepted which is there is no association between annual income and acceptance of fuel price Neutral.

5. Conclusion

From the results show conclusively that sectors most affected by the higher of fuel prices is the transport sector whether by land, air and water are also affected enormously from the increase in fuel prices, because vehicles in operate depending on the fuel. This fuel price increase will leads to an increase in transportation tariffs. The electricity sector also primarily impact because of this sector needs fuel in generate electricity which is very large. The increases of fuel price impact to this sector will cause the increases of production costs in generating electricity. The main objectives of study was to assertive analysis of Impact on rising fuel price in belagavi city of Karnataka concludes that Fuel has been one of the major discussed point in the present situation and the sudden price hike and the fluctuations in the price range has affected majority of people in their daily life style, the price deflection has been caused due to different reasons like the price deflection in the international Crude Oil Market, the Price setting range decided by the government or even it can consider the consumption has increased but the availability of fuel is minimal. To overcome with this situation the people are moving towards the Electrical Vehicles, Car pooling and public transportation and the consumers expectation in the fuel range is somewhat around the minimal range of 51 to 90 Rupees. The research paper which Analysis the impact on Rising Fuel Price in Belagavi City proves so and it gives the further researcher to analysis or study over comparison of fuel prices and electrical Vehicles or even public transport.

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