

Consumer Perceptions towards Rise in Fuel Prices - With reference to Chennai City

¹Gowtham Ramkumar & ²Vasanth Ramkumar

¹Assistant Professor, Department of Commerce, Madras Christian College, East Tambaram, Chennai - 600059(India)

²Senior Processing Executive, Cognizant Technology Solutions, Ramanujar IT park, Tharamani, Chennai - 600113(India)

ARTICLE DETAILS

Article History

Published Online: 15April2019

Keywords

Fuel Prices, Consumer perceptions, Spending Pattern

*Corresponding Author

Email:gowthamphenom@gmail.com

ABSTRACT

Purpose: The purpose of this study is to identify the reasons for rising fuel prices. The other purpose of this study include ranking the income distribution pattern of consumer before and after rise in fuel prices.

Methodology: The data for the study is collected through 50 consumers in Chennai city. IBM SPSS 22 version software is used to process and analyze the collected data for the study.

Findings: The study identifies that high taxes charged by the central government is the major reason for rise in petrol prices. The consumers gave priority to savings for future uncertainties before fuel price rise however increase in prices of fuel has resulted in future savings as less priority one.

Implications: The results of the study indicate that taxes on fuel has to be reduced. The study also price-ceiling for fuel prices.

Originality: While many research studies focused on importance of fuel prices in the growth of the economy, this study seeks to study consumer perceptions with regard to fuel prices and its impact in their spending preferences.

1. Introduction

Taxes are the important source of revenue for government. Taxes play a significant role in determining the prices of various commodities in the economy. Fuels are no exception to it. Fuels are integral part of consumers' day to day activities. Fuel prices are mainly affected by international prices and the relative position of supply to demand. Strong and increasing demand for gasoline and other petroleum products in the United States and the rest of the world can place intense pressure on the prices of fuel. Fuel prices tend to increase when there is a mismatch between supply of fuel relative to real or expected demand or consumption. Fuel prices can change rapidly by any factor that disturbs crude oil supplies, refinery operations, or gasoline pipeline deliveries. Even when crude oil prices are stable, prices can fluctuate because of seasonal changes in demand and in gasoline specifications.

Increasing fuel prices has some positive impact on the economy. Firstly, it will discourage imports and this will have positive effects on the balance of payments position of the country. Secondly, the demand for fuels become elastic. In other words, consumption becomes limited and for needed purpose. The other benefits including changes in interest rates, rise in prices of luxury products etc.

Increasing fuel prices will have some negative impact on consumers. The fuel bills of consumers will start increasing and with purchasing power remaining constant, consumers may be left with no money after some point of time. Secondly, the prices of essential commodities will start to increase. This can result in starvation among poor people and middle income families will find it difficult to spend for entertainment expenses. Thirdly, public transportation prices will also increase. Consistent increase in fuel prices can result in

inflation which will have a further damage on the economic system.

With this background on fuel prices and its effects on consumers, this research paper seeks to find answers to the following questions

1. What are the reasons for rising fuel prices?
2. How consumer perceive rising fuel prices?
3. What is the income distribution pattern of consumers before and after fuel price hike?

2. Review of literature

Bhattacharya &Batra, 2009 in their paper entitled "Fuel Pricing Policy Reform in India: Implications and Way forward" attempted to investigate the impact of international oil prices on the growth of India. The study concluded with how fuel prices will change if they are based on government policies and changes it will make when prices are determined based on international fuel prices.

Anand, Caody, Mohammad, Thakoor, & P Walsh, 2013 in their paper entitled "The Fiscal and Welfare Impacts of Reforming Fuel Subsidies in India" analyzed various pricing approaches for fuel and how it will impact the subsidies. The paper further analyzes the fuel subsidies followed by countries and how increase in fuel prices help in compensating fuel subsidies on one side however affecting household incomes on the other side.

Bhanumurthy, Das, & Bose, 2012 in their research paper entitled "Oil Price Shock, Pass-through Policy and its Impact on India" explained how international fuel prices and domestic oil prices affects the macro-economic variables of a country through simulation model.

M.K Anand, 2016 in his paper entitled "Reforming fossil fuel prices in India: Dilemma of a developing economy"

discussed the effect of rising fuel prices on the economy, especially with special reference on agricultural sector. This study analyzed in depth the direct and indirect impact of rising fuel prices on inflation and achieving food security in the country.

Parikh, Purohit, & Maitra, in their paper entitled "Demand projections of petroleum products and natural gas in India" 2007 analyzed the impact of demand and consumption pattern on Indian Economy and projected the future demand for energy with econometric models and concluded how these will affect the macro economic variables of the economy.

Parikh & Shukla, Urbanization, energy use and green house effects in economic development: Results from a cross-national study of developing countries, 1995. This paper assesses the effect that usage of Energy and the associated increase in the fuel pricing will possible have on the Economic Development of the country –in general and urbanization in particular in terms of the changing patterns of energy use. Also this paper put forward what the policies imply toward urbanization and development of the countries.

From the above related literature studies it is clear researchers focused on explaining how petrol prices influences various dimensions of the Indian economy. But there is a gap with regard how consumers perceive rise in petrol and it is impacting their daily routine life. Hence there is a need to conduct a research study to understand how consumer perceive the rising petrol prices.

3. Statement of the problem

Fuel prices play a significant role in the deciding the growth rate of the economy next to taxes. Like taxes it also affects the day to day life of the people. In recent years, India is experiencing fluctuations in fuel prices which is not positively impacting people. With income or purchasing power remaining constant and rising fuel prices on the other hand, it is necessary to conduct a research study to focus on how consumer perceive these rising fuel prices and how it is impacting their spending pattern.

4. Objectives of the study

- The objectives of this study are
- To analyze the demographic profile of the respondents.
 - To rank the spending pattern of consumers before and after rise in fuel prices.
 - To identify the reasons for rising fuel prices.
 - To offer suggestions on rising fuel prices.

5. Research methodology

The data required for this study is collected from both primary and secondary sources.

6. Type of research

This research study is a quantitative research study. A quantitative research study is a study where a problem which is being studied by the researcher is supported by generating data which can be later converted into usable statistics giving meaningful conclusion.

7. Sources of data

Primary data

Primary sources are the sources that are collected originally rather than being already made available. The data obtained from these sources are called primary data. The primary data for the study is collected through survey method using structured questionnaire. The primary data often is available in raw form which is then processed to make itself suitable for further analysis to arrive at meaningful conclusion.

Secondary data

The secondary sources represent those data made available in a suitable form to lend itself for further analysis. Often they do not require any processing and can be used for analysis purpose. The Secondary data for the research is collected through journals, magazines and books relating to economic effects of taxes on the economy.

8. Sampling Design

Sample Size: The sample size for the study is 50 respondents from Chennai city. The sample size for the study is arrived through G-power statistics 3.1 software which helps in determining the sample size based on the analytical tool used for the study.

Sampling Technique: This research study is based on simple random sampling method. This sampling technique gives each element an equal and independence chance of being selected rather than pre-determining the samples to be selected.

Sampling Unit: The sampling unit for the study is the consumers of FMCG products. Industrial consumers do not represent the sampling unit for the study.

9. Statistical Design

The analysis for this study has been carried out through IBM SPSS Version 22 Software. The analytical tool used for the study is descriptive Statistics. The Study uses simple descriptive statistics to present the consumers' perception towards goods and services tax implementation. Mean and Standard deviation is used to present the results as the questions are structured based on ordinal scale rather than nominal scale.

10. Results and Discussion

Table 1 showing the Age Profile of the Respondents

		Age			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20-30	34	69.4	69.4	69.4

	30-40	10	19.4	19.4	88.9
	40-50	6	11.1	11.1	100.0
	Total	50	100.0	100.0	

Source: Primary Data Analysis



Figure 1 showing the Age Profile of the Respondents

Interpretation

The table 1 shows age profile of the respondents. The Frequency column indicates the number of observations in the given category. The Percent column indicates the percentage of observations based on overall observations in the study. The Valid Percent column displays the percentage of observations based on total non-missing responses in the category. The Cumulative Percent column is the total percentage of the sample that has been accounted for up to

that row; it can be computed by adding all of the numbers in the Valid Percent column above the current row.

From the above table it is clear that 69.4% of the respondents are in the age group 20 – 30, while 19.4% of the respondents are in the age group 30 – 40 and others that is 11.4% of the respondents were in the age group 40 – 50. The figure 1 represents the data in the table in the form of bar chart.

Table 2 Showing Gender of the Respondents

Indicate your Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	42	83.3	83.3	83.3
	Female	8	16.7	16.7	100.0
	Total	50	100.0	100.0	

Source: Primary Data Analysis

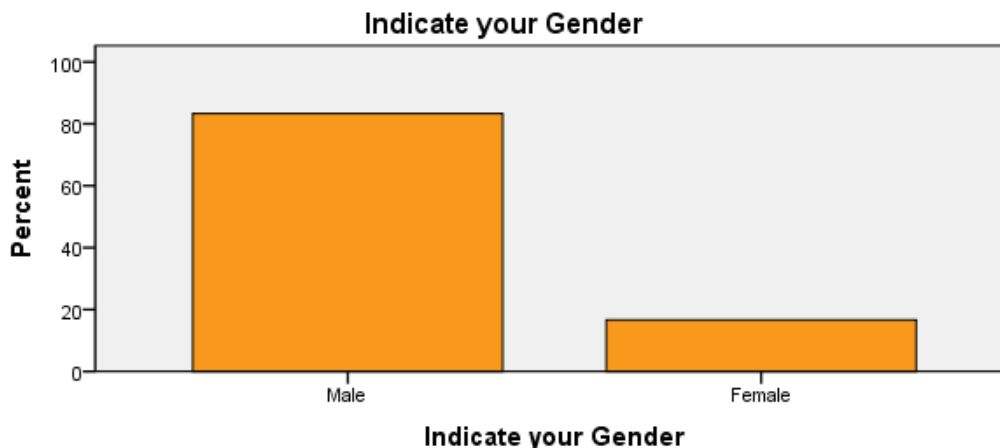


Figure 2 showing Gender of the Respondents

Interpretation

The table 2 shows Gender profile of the respondents. The Frequency column indicates the number of observations in the given category. The Percent column indicates the percentage

of observations based on overall observations in the study. The Valid Percent column displays the percentage of observations based on total non-missing responses in the category. The Cumulative Percent column is the total

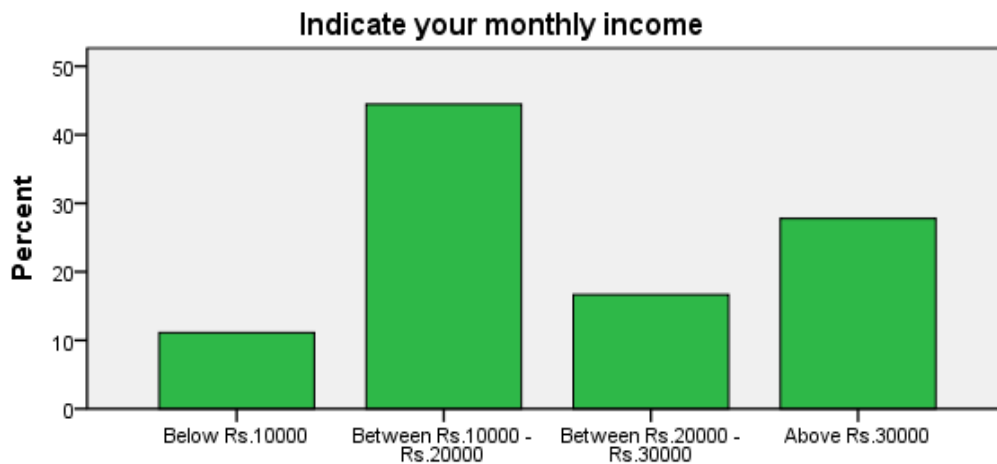
percentage of the sample that has been accounted for up to that row; it can be computed by adding all of the numbers in the Valid Percent column above the current row. From the

above table it is clear that 83.3% of the respondents are male, while 16.7% of the respondents are female. The figure 2 represents the data in the table in the form of bar chart.

Table 3 Showing Monthly Income of the Respondents

Indicate your monthly income					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below Rs.10000	6	11.1	11.1	11.1
	Between Rs.10000 - Rs.20000	22	44.4	44.4	55.6
	Between Rs.20000 - Rs.30000	8	16.7	16.7	72.2
	Above Rs.30000	14	27.8	27.8	100.0
	Total	50	100.0	100.0	

Source: Primary Data Analysis



Indicate your monthly income
Figure 3 showing the monthly income of the respondents

Interpretation

The table 3 shows the monthly income of the respondents. The Frequency column indicates the number of observations in the given category. The Percent column indicates the percentage of observations based on overall observations in the study. The Valid Percent column displays the percentage of observations based on total non-missing responses in the category. The Cumulative Percent column is the total percentage of the sample that has been accounted for up to

that row; it can be computed by adding all of the numbers in the Valid Percent column above the current row.

From the above table, it is clear that 44.4% of the respondents were earning a monthly income between Rs.10000 and Rs.20000 while 27.8% of the respondents earns above Rs.30000 as their monthly income. It is also clear that 16.7 % respondents have a monthly income range of between Rs.20000 and Rs.30000 while remaining 11.1% have below Rs.10000 as their monthly income.

Table 4 shows the Ranks of Income Distribution of Consumers pre-fuel prices hike

Descriptive Statistics						
	N	Minimum	Maximum	Mean	Std. Deviation	Rank
Savings for Future before increase	50	1	6	4.14	1.710	1
Fulfilling Family Needs before increase	50	1	6	3.72	1.466	2
Health before increase	50	1	6	3.47	1.444	3
Food, Clothing and Shelter before increase	50	1	6	3.44	1.889	4
Transportation before increase	50	1	6	3.22	1.641	5
Entertainment before increase	50	1	6	3.00	1.942	6
Valid N (listwise)	50					

Source: Primary Data Analysis

Interpretation

The table 4 shows the income distribution pattern of consumers before rise in fuel prices. The N indicates the

number of observations in the study. The Minimum value indicates the smallest value of the variable. The Maximum value indicates the largest value of the variable. Mean is nothing but the arithmetic means across the observations. It is sensitive to larger or smaller values. Standard Deviation is the square root of variance. Larger the Standard deviations indicates that observations will spread out more and vice-versa. The Valid N List wise indicates the number of the cases which does not have any missing values in the variables in the table

From the above table, it is clear that consumers' preference to save money for future uncertainties is given priority which is indicated by a mean score of 4.14. Meeting family needs becomes their second preference which is indicated by 3.72. Health related spending is given third preference by 3.47. From the table it is also clear that consumers do not find any difficulty in fulfilling their basic needs. The same is supported by a low mean score of 3.44. Transportation and Entertainment were least preferred with mean score of 3.22 and 3.00 respectively.

Table 5 shows the Reasons for rise in fuel prices

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
High rates of taxes by central government	50	2	5	4.14	1.150
Wrong pricing strategy	50	2	5	4.03	.941
Fluctuations in international fuel prices	50	1	5	3.72	1.210
Increasing consumption and rising number of motor vehicles	50	1	5	3.50	1.183
Local Levies are more	50	1	5	2.94	1.351
Valid N (listwise)	50				

Source: Primary Data Analysis

Interpretation

The table 4 shows the income distribution pattern of consumers before rise in fuel prices. The N indicates the number of observations in the study. The Minimum value indicates the smallest value of the variable. The Maximum value indicates the largest value of the variable. Mean is nothing but the arithmetic means across the observations. It is sensitive to larger or smaller values. Standard Deviation is the square root of variance. Larger the Standard deviations indicates that observations will spread out more and vice-versa. The Valid N List wise indicates the number of the cases which does not have any missing values in the variables in the table.

From the table it is clear that high taxes on fuel prices is the major reason for hike in fuel prices. As fuels are not brought under GST regime, multiple taxes imposed on it and as a result price increases. This is supported by a highest mean score of 4.14. The second important reason for hike in petrol prices is due to wrong pricing strategies and indicated by a mean score of 4.03. The fluctuations in international fuel prices is considered as a third reason for rise in fuel prices which is indicated by mean score of 3.73. Increasing consumption and local levies on were the other reasons for hike in fuel prices with 3.50 and 2.94 respectively as their mean scores.

Table 6 shows the Ranks of Income distribution of Consumers post-fuel price hikes

Descriptive Statistics						
	N	Minimum	Maximum	Mean	Std. Deviation	Rank
Entertainment after increase	50	1	6	4.92	1.251	1
Transportation after increase	50	1	6	3.94	2.028	2
Savings for Future after increase	50	1	6	3.31	1.618	3
Food Clothing and Shelter after increase	50	1	6	3.19	1.564	4
Health after increase	50	1	6	2.86	1.496	5
Fulfilling family needs after increase	50	1	6	2.78	1.290	6
Valid N (listwise)	50					

Source: Primary Data Analysis

Interpretation

The table 5 shows the income distribution pattern of consumers after rise in fuel prices. The N indicates the number of observations in the study. The Minimum value indicates the smallest value of the variable. The Maximum value indicates the largest value of the variable. Mean is nothing but the arithmetic means across the observations. It is sensitive to

larger or smaller values. Standard Deviation is the square root of variance. Larger the Standard deviations indicates that observations will spread out more and vice-versa. The Valid N List wise indicates the number of the cases which does not have any missing values in the variables in the table.

From the above table, it is clear that consumers' spending on entertainment have reduced after fuel prices hike and it is

indicated by a mean score of 4.92. Consumers also reduced their transportation expenses and indicated by a mean score of 3.94. Savings for future has reduced indicated by a mean score of 3.31. From the table it is also clear that consumers still gave priority in in fulfilling their basic needs. The same is supported by a mean score of 3.19. Similarly health and fulfilling family needs were least preferred with mean score of 2.86 and 2.78 respectively.

11. Suggestions

1. The fuels should be brought under GST regime so that multiple taxes and a subsequent increase in prices can be avoided.
2. Price-ceiling on fuel prices should be implemented so that adverse increase in prices is avoided.
3. The benefits of fluctuations in international fuel prices should be fully transferred to the consumers by the Oil Companies.
4. Oil companies should be provided guidelines regarding how fuels has to be priced as today even fuels turns out to be a basic need for consumers.

References

1. Bhattacharya, B.B., Batra, A., 2009. Fuel pricing policy reform in India: implications and way forward. *Econ. Political Wkly.* 44 (29), 77–86, Jul. 18-24, 2009.
2. David Coady & Rahul Anand & Adil Mohammad & Vimal Thakoor, 2015. "The Fiscal and Welfare Impacts of Reforming Fuel Subsidies in India," Working Papers id:6575, e-SocialSciences.
3. Bhanumurthy NR, Das S, Bose S (2012) Oil price shock, pass-through policy and its impact on the Indian economy. NIPFP Working Paper, 2012-99.
4. Anand, M.K., 2012. Diesel pricing in India: entangled in policy maze. NIPFP. WP No.2012-108, pg41,
5. Parikh, Jyoti & Purohit, Pallav & Maitra, Pallavi. (2007). Demand projections of petroleum products and natural gas in India. *Energy.* 32. 1825-1837. 10.1016/j.energy.2007.02.008.
6. Parikh J., Shukla V. (1995), "Urbanization, energy use and greenhouse effects in economic development. Results from a cross-national study of developing countries" *Global Environmental Change*, Volume 5, Issue 2, 1995, Pages 87-103.