



IMPACT OF INCREASING FUEL PRICES ON CONSUMERS

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Abstract: This study is conducted to analyse the vehicle user behavior in response to increasing fuel prices. Increase in fuel prices makes the people to change their mind in the way of consumption. There are lot of factors that cause fluctuations in fuel prices. The increase in fuel price due to lack of natural resource, social and political factors such as economic policy, war between nations etc. are some of the reasons. Increase in fuel prices makes the peoples to change their consumption and budget allocation for the fuel expensed among the family.

Key words – Increase in Fuel Prices, Consumption, Factors

I. INTRODUCTION

In recent years, the fluctuating prices of fuel have become a significant concern for vehicle users worldwide, and Tamil Nadu, a southern state in India, is no exception. The price of fuel, predominantly petrol and diesel, is influenced by various factors such as global crude oil prices, geopolitical events, and economic conditions. These fluctuations have a profound impact on the daily lives of vehicle users in Tamil Nadu, affecting their expenses, travel patterns, and overall economic well-being.

The price of fuel directly affects the cost of transportation, leading to changes in the monthly budget of vehicle users. As Tamil Nadu is home to diverse economic activities, ranging from agriculture to industry, the impact of fuel prices is felt differently across various sectors. High fuel costs can result in increased production expenses for businesses, leading to potential price hikes for goods and services. The majority of individuals in Tamil Nadu heavily rely on personal vehicles for daily commuting. Fluctuating fuel prices influence the commuting patterns of vehicle users, potentially leading to changes in travel behavior. Growing fuel prices make the people to consider using other forms of transportation, including carpooling or public transportation, which will affect the demand for these services.

In India Agriculture plays a crucial role, the impact of fuel prices is particularly significant. Farmers heavily depend on diesel for irrigation, transportation of goods, and operating agricultural machinery. Therefore, any increase in fuel prices directly affects the operational costs of farming activities, potentially impacting the overall agricultural economy of the state. High fuel prices may also drive awareness about the environmental impact of fossil fuel consumption. Vehicle users may become more conscious of their carbon footprint and may explore alternative, fuel-efficient vehicles or adopt eco-friendly practices, contributing to the broader environmental sustainability goals.

OBJECTIVES

- i) To assess the effect of increasing fuel prices on consumers.
- ii) To find changes in the shift from fuel vehicles to EV due to increase in fuel prices.
- iii) To identify the impact of fuel prices in household budget.
- iv) To analyse the fuel price contribution towards inflation.

SCOPE OF THE STUDY

- This study aims to analyse the effects of increasing fuel prices on vehicle users. It also helps as to understand why there's a shift from fuel vehicles to e-vehicles which result in fast growing market for e-vehicles.
- This project studies the significant impact of the prices on individual or household budgeting system especially low and middle level income people.
- The contribution of rise of fuel prices towards inflation is also Presented in this study

REVIEW OF LITERATURE

Sundaresan k (2022). The article of "A Study on Impact of Petrol Price Raising in India" this study to analysis the Consumers have been forced to pay a higher price for petrol than for other expenses due to increase in petrol prices. In addition, both the civil and state governments are constantly raising the price. This has had an influence on customers, and the majority of them are either taking public transportation and driving electric automobiles, daily necessary commodity prices has risen due to increase in petrol prices. is to figure out how much the price of petrol has increased and to investigate the impact of rising petrol prices in India. As the result, the findings of the study are level of agreeability regarding more usage of vehicles differs between the Male and female does not vary with age groups other than vehicle usage and petrol tax. This research concludes that individuals are suffered more for rise in petrol price.

Sharma, A., and R. Singh (2020). A review of the effects of fuel efficiency policies on the transportation sector, International Journal of Sustainable Transportation, 15(5), 343-361. An overview of the several measures intended to increase fuel economy in the worldwide transportation sector is given by this study. It focuses at how effectively these regulations work to cut emissions and fuel use, as well as any possible effects on how many people own vehicles.

Yadav, S., and K. Sinha (2017). An analysis of the effects of fluctuations in fuel prices on vehicle ownership and usage. 52, 498-511 in Transportation Research Part D: Transport and Environment. Sinha and Yadav examine the connection between changes in fuel prices, automobile ownership, and consumption habits. The review summarizes the body of research on the effects of fluctuating fuel costs on consumer choices about the purchase, use, and mode of transportation, as well as the resulting effects on energy use and emissions.

REASONS FOR INCREASE IN FUEL PRICES IN INDIA

Global Crude Oil costs: The world crude oil market is the main factor influencing fuel costs in India. India's energy needs are largely met by imports of crude oil. The retail costs of petrol and diesel in India are directly impacted by fluctuations in the price of crude oil internationally due to factors including geopolitical tensions, production cuts by oil-producing nations, shifts in global demand, and disruptions in oil supply from major suppliers.

Government Taxes and levies: In India, the ultimate retail price of gasoline and diesel is largely determined by taxes and levies imposed by the national and state governments. A significant amount of the retail fuel costs is made up of state- and federal-imposed VAT and excise charge. The cost of fuel for consumers is directly impacted by any changes or increases to these taxes made by the individual governments.

Transportation and Distribution Cost: petroleum prices are also influenced by the difficulties of supplying and transporting petroleum throughout India's large geographic areas. Elevated transportation expenses, especially in isolated or countryside regions, augment the total fuel expenditure.

Operating costs and refinery margins: The price of petrol and diesel is influenced by refinery margins, which are the difference between the cost of crude oil and the value of petroleum products produced. India's refineries frequently deal with issues like maintenance expenses, technological advancements, and environmental laws compliance. These issues can have an effect on the refineries' operating costs and, ultimately, fuel prices.

Demand and Supply Dynamics: Fuel prices are also impacted by domestic demand, which is driven by variables including industrial activity, economic growth, consumer behavior, and transportation needs. Fuel costs may rise as a result of any supply and demand mismatches, such as rising consumption or broken supply networks.

Government Policies and Subsidies: In the past, the Indian government has provided fuel subsidies to lessen the impact that changes in global prices have on consumers.

RESEARCH METHODOLOGY

Primary Data have been collected from the group of people in online mode through a structured Questionnaire. Secondary Data have been collected from various journals, books, articles and websites.

Tools used

- Percentage Analysis
- Rank Analysis
- Regression Analysis

ANALYSIS AND INTERPRETATION AGE OF RESPONDENTS

S. No	Age Category	Number of Respondents	Percentage
1	Under 18	2	1.9
2	19 to 35	62	59.1
3	36 to 50	31	29.5
4	Above 50	10	9.5
	Total	105	100

The above table illustrates that 1.9% of the respondents are aged below 18 and 59.1% of the respondents are aged between 19-35 and 29.5% of the respondents are aged between 36-50 and 9.5% of the respondents are aged above 50.

Majority of the respondents are from age between 19 to 35 (59.1 %).

GENDER OF RESPONDENTS

S. No	Gender	Number of Respondents	Percentage
1	Male	65	61.9
2	Female	40	38.1
	Total	105	100

INTERPRETATION:

The above table illustrates that 61.9% of the respondents are male and 38.1% of the respondents are female. Majority of the respondents are Male (61.9%).

DISTANCE TRAVELLED BY RESPONDENTS IN A WEEK

S. No	Distance travelled	Number of Respondents	Percentage
1	Less than 50 miles/kms per week	40	38.1
2	50 – 100 miles/kms per week	41	39
3	100 – 200 miles/kms per week	12	11.4
4	More than 200 miles/kms per week	12	11.4
	Total	105	100

INTERPRETATION:

The above table exhibits that 38.1 % respondents drive less than 50 miles/kms per week, 39% of respondents drive 50 — 100 miles/kms per week, 11.4% of respondents drive 100 — 200 miles/kms per week and 11.4% of respondents drive more than 200 miles/kms per week.

INTERVAL OF FUEL PURCHASE

S. No	Interval of Fuel Purchase	Number of respondents	Percentage
1	Daily	28	26.7
2	Weekly	53	50.5
3	Bi-weekly	18	17.1
4	Monthly	6	5.7
	Total	105	100

INTERPRETATION:

The above table shows that 26.7% of respondents purchase fuel daily, 50.5% of respondents purchase weekly, 17.1% of respondents purchase Bi-weekly and 5.7% of respondents purchase fuel in monthly manner. Majority of the respondents purchase fuel (50.5%) weekly.

CHANGES MADE TO COPE UP WITH INCREASED FUEL PRICE

S. No	Changes made to keep with increased price	Number of Respondents	Percentage
1	Use public transport more frequently	30	28.6
2	Limit unnecessary trips	41	39
3	Switch to more fuel efficient vehicles	23	21.9
4	No changes in transportation habits	11	10.5
	Total	105	100

INTERPRETATION:

The table above displays that 28.6% of respondents use public transport more frequently, 39% of respondents limit unnecessary trips, 21.9% of respondents switch to more fuel-efficient vehicles and 10.5% of respondents does not make any changes in transportation habit.

Most of the respondents (39%) limit unnecessary trips to meet raising fuel prices.

INFLUENCE ON TRAVEL PLANS

S. No	Influence on travel plans	Number of Respondents	Percentage
1	Option for closer destination	28	26.7
2	Postpone or cancel trips	37	35.2
3	No impact on travel plans	32	30.5
4	Not sure	8	7.6
	Total	105	100

INTERPRETATION:

The above table presents that 26.7% of respondents opted to choose closer destination, 35.2% of respondents postpone or cancel trips, 30.5% of respondents have no impact on travel plans and 7.6% of respondents are not sure about the influence on their travel plan.

Most of the respondents used to postpone or cancel trips (35.2%).

ELECTRIC VEHICLE AS ALTERNATIVE FOR GASOLINE CAR

S. No	EV as alternative	Number of Respondents	Percentage
1	Yes, definitely	28	26.7
2	Maybe, depending on various factors	51	48.6
3	No, I prefer gasoline cars	20	19
4	Not sure	6	5.7
	Total	105	100

(Source: Primary Data)

INTERPRETATION:

The above table illustrates that 26.7% of respondents consider EV as an alternative, 48.6% of respondents prefer EV based on certain factors, 19% of respondents prefer only gasoline cars and 5.7% of respondents are not sure about their preference.

Most of respondents prefer EV (48.9%) as an alternative for gasoline vehicles.

INCREASING FUEL PRICES AFFECT INFLATION RATES

S. No	Impact on inflation rates	Number of Respondents	Percentage
1	They contribute to higher inflation rates	39	37.1
2	They have no significant impact on inflation rates	36	34.3
3	They contribute to lower inflation rates	24	22.9
4	Not sure	6	5.7
	Total	105	100

INTERPRETATION

The above table shows that the respondents believe that fuel prices contribute to higher inflation rates, 34.3% of respondents believe they have no significant impact on inflation rates, 22.9% of respondents believe they have contribution to lower inflation rates and 5.7% of respondents are not sure about the fuel prices impact. Most of the respondents believe fuel prices have contribution to higher inflation rates (37.1%).

MEASURES TO MANAGE RAISING FUEL PRICES

S. No	Measure taken	Number of respondents	Percentage
1	Budget more carefully	27	25.7
2	Look for discounts and sales	25	23.8
3	All of the above	18	17.1

5	None of the above	5	4.8
	Total	105	100

INTERPRETATION

The above table shows that 25.7% of respondents budget more carefully, 23.8% of respondents look for discounts and sales, 28.6% of respondents cut back on non-essential expenses, 17.1% of respondents follows more than the above mentioned and 4.8% of respondents does not follow such measures.

Most of the respondents make cut back on non-essential expenses (28.6%) to manage the raising fuel prices.

REASON FOR PURCHASING EV

Factor	1	2	3	4	Total	Rank
Weights	4	3	2	1		
Environmental Benefits	25(100)	33(99)	30(60)	17(17)	105(276)	11
Government Subsidies	15(60)	35(105)	25(50)	30(30)	105(245)	111
Cost saving on Fuel	25(100)	15(45)	23 (46)	42 (42)	105(296)	I
Technology Advancement	25(100)	15(45)	23(46)	42(42)	105(233)	IV

INTERPRETATION

Majority of the respondents have ranked the Cost saving on fuel as the first for the reason to purchase EV, which is followed by Environmental benefits as Second, Government subsidies as Third and Technological advancement as Fourth in the reason for purchasing EV.

Majority of respondents have ranked Cost saving on fuel as First and environmental benefits as second as reason for purchasing EV.

FINDINGS AND CONCLUSIONS

1. Majority of the respondents are from age between 19 to 35 (59.1 %).
2. Majority of the respondents are Male (61.9%).
3. Majority of 38.1 % respondents drive less than 50 miles/kms per week.
4. Majority of the respondents purchase fuel (50.5%) weekly.
5. Most of the respondents (39%) limit unnecessary trips to meet raising fuel prices.
6. Most of the respondents used to postpone or cancel trips (35.2%).
7. Most of respondents prefer EV (48.9%) as an alternative for gasoline vehicles.
8. Most of the respondents believe fuel prices have contribution to higher inflation rates (37.1%).
9. Most of the respondents make cut back on non-essential expenses (28.6%) to manage the raising fuel prices
10. Majority of respondents have ranked Cost saving on fuel as First and environmental benefits as second as reason for purchasing EV.

CONCLUSION

The impact of increasing fuel prices on consumers is multifaceted, affecting various aspects of daily life and economic well-being. These impacts can be broadly categorized into immediate and longer-term effects, touching on personal finances, consumer behaviour, and broader economic implications. Immediate Financial Impact The most direct effect of rising fuel prices is an increase in daily transportation costs for consumers. For those who rely on personal vehicles for commuting, the cost of fuel becomes a significant portion of their monthly expenses. This increase in expenditure reduces disposable income, limiting spending on nonessential goods and services.

In response to higher fuel prices, consumers may alter their behavior to mitigate the financial impact. This can include reducing unnecessary travel, carpooling, using public transportation, or switching to more fuel-efficient vehicles. Over time, these changes can significantly affect consumer demand patterns and transportation trends.

The impact of rising fuel prices is not uniform across all consumer groups. Low-income families tend to spend a larger proportion of their income on transportation and are more vulnerable to price increases. This can exacerbate economic inequality and place additional strain on households already struggling to meet basic needs.

In the longer term, persistent high fuel prices can serve as a catalyst for innovation and the adoption of alternative energy sources. This includes increased investment in renewable energy, electric vehicles, and more efficient public transportation systems. While this transition presents upfront costs and challenges, it also offers opportunities for sustainable growth and energy independence.

Governments often face pressure to mitigate the impact of rising fuel prices. Policy measures can include reducing fuel taxes, offering subsidies, or implementing price controls. However, these interventions must be carefully balanced against fiscal sustainability and longterm energy policy goals.

In conclusion, increasing fuel prices have a significant impact on consumers, affecting everything from day-to-day expenses to broader economic and social dynamics. While the immediate effects can be challenging for many households, these pressures also drive changes in behaviour, policy, and innovation that could lead to more sustainable and resilient energy consumption patterns in the long run.

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