

**ANALYTICAL STUDY ON THE IMPACT OF FUEL PRICE AND CONSUMPTION EXPENDITURE
AMONG THE PEOPLE IN MANJERI MUNICIPALITY**

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“We all consume; therefore, we all contribute”

Abhaidev

Abstract.

The world economy is currently witnessing a huge problem of increasing fuel price. As a tool of measure, fuel price is keeping international relations all over the world including trade relations, political relations... etc. When the fuel price increase there will be a variation in all the major economic structures of the society. It will adversely affect the economies and here, arises the question of finding solutions for this problem.

The socio-economic impact of the increased fuel price will reflect in every individual especially in their consumption expenditure. In an economic view, fuel price will directly affect the prices of all the other commodities and it causes economic imbalances like inflation, depression...etc. For ensuring the equilibrium of the markets we have to study about how the economic variable like fuel price is working in an economy.

The purpose of the study is to examine the impact of fuel price and consumption expenditure among people. For this, various methods and economic tools are used in order to getting clarifications on the topic. The result suggests that experimenting new technologies like electric vehicles may reduce the over dominance and dependents of crude oil over the countries.

INTRODUCTION

I. Introduction

Increasing fuel price is an important problem faced by India. It affects all aspects of human life such as production, consumption, distribution etc. Increase in fuel price cause a huge impact in price of all goods and services etc. Increase in fuel price cause a huge impact in price of all goods and services. It also affects the cost of public transportation, as per the result the sale of vehicles fall down. It can be a reason for unemployment, poverty and economic imbalance. Rising fuel prices increases the import costs and which eventually leads to a fail in the value of rupees so as inflation. When the fuel prices increase continuously it will badly affect the consumer. The marketing Companies like Indian oil, Bharat petroleum and Hindustan petroleum are revising the prices on The basis of change in international prices. So, when the crude oil price increases it directly affect the Indian fuel prices. According to the reports of 2020, there is a price drop of fuel price occurred in the world due to the restrictions of covid-19. And also there is an oil price war happened between Russia and Saudi Arabia when they are failed to produce minimum oil reserves. In India, the important factors affecting the fuel price are cost of crude oil, increased tax Rates, exchanges rates etc. India is in their position for importing fuel after the United States and China. The import rate of crude oil is close to 82.8%. The fuel prices can directly affect the consumption expenditure of individuals. Consumption expenditure means that the expenditure occurring when an individual tries to meet their needs or wants. Not only the preference of a consumer but also, the prices of commodities will affect the consumption expenditure. When the fuel price increases the cost of transportation increases the price of the commodities also increases. So as the consumption expenditure also increases. The increased consumption expenditure will badly affect an individual so as the economy. The economy will remain balanced only if the requirements meet the availability. When the availability sucks the economy will definitely fell apart. It will lead to depression in an economy.

II. Significance of the Study

According to Lionel Robbins, “Economics is the science which studies human behavior as a Relationship between ends and scarce means which have alternatives uses. Economies are supposed to maintain an equilibrium through equalizing the demand and supply of goods and services, or to determine the allocation of resources within a country.

When the fuel price increase people are denied to meet their daily expenditure because of the high prices of the commodities. The economy will become imbalanced between the needs and availability of resources. When evaluating the current scenario, the importance of studying the impact of fuel price and Consumption expenditure got a specific role within an economy. It collects an overview on the Issue from the bottom to the main though we can prejudice the condition of an economy when It's in out of control. It is very important to study the basic problem of an economy such as the impact of fuel price and consumption expenditure of individual. When the fuel price increases the transportation cost also increases and it will affect the price of commodities. It will become a challenge to people who are unable to meet their expenses.

III. Objectives and Methodology of the study

1. To understand the effect of increased fuel prices on individual's life.
2. To analyses the problems arises when the fuel price increases.
3. To examine the relation of fuel price and consumption expenditure.
4. To understand the causes of increase in fuel price.

For the analytical study on the impact of fuel price and consumption expenditure among the people in Manjeri municipality in Malappuram district 30 families were chosen from the population. The family samples are selected at random basis.

- Primary data is the data collected directly from the individuals. For this selected sample families are interviewed through personal interview method using the presented questionnaire.
- Secondary data means data collected by someone earlier. Secondary data is collected and reviewed from various reports, journal, books and official website relevant to area of the present enquiry.

The tools used for the study are simple averages, percentages, tables, simple bar diagram and correlation ...etc

IV. Literature Review.

In this chapter an attempt has been made to review some important studies which are relevant to present study. A literature review is a piece of academic writing demonstrating knowledge and understanding of the academic literature on a specific topic place in a context. Performing literature search and then reviewing and critiquing it are essential to any research report. The main objective of the review of literature is to illustrate the idea or concept. The chapter deals with the several studies conducted on the topic 'The impact of fuel price and consumption expenditure among the people in Manjeri Municipality. Here are some of articles that point out the impact of fuel price.

Sandra Hutton, 1984. This study examines the data on gasoline use from three surveys, focusing on the significance of household income. The number of the household, the kind and size of the residence, and the existence of central heating are all more direct factors on fuel expenditure than income, according to multivariate data analysis methodologies. Once the size of the house, the size of the household, and the type of heating system are known, changes in income have minimal independent impact on fuel use.

Jacques Delsalle, 2002. In 2000, there were worries about how higher fuel prices might affect the transportation industry. In order to better understand the implications of a major and long-lasting change in oil prices on transportation costs, transportation demand, and externalities in transportation. This report draws the conclusion that the volatility of crude oil prices during this time period led to a significant difference in fuel prices for the transport sector across Member States after evaluating the evolution of fuel prices and of its components over the previous four years. On the one hand, the UK was an exception to this rule as extra effects from currency rate movements both amplified and masked the consequences of the decrease in oil prices in the second decade.

Abby L Duly, Jeffry A Harris, Ara M Khatchadourin, Rozi T Ulics and Melissa C Wolfer December, 2006. This article explains that the Bureau of Labour Statistics (BLS) conducts price and consumer expenditure surveys that measures both changes in price of, and expenditures for, petroleum products throughout the various levels of economy. This article introduces the programs that carry out these surveys, describes the petroleum data compiled by those programs, explains the methodology underlying the various crude-oil and gasoline surveys, and provides historical comparisons of price data across the BLS programs.

Rakesh Agrawal, 2007. It is suggested to use a hybrid hydrogen-carbon (H₂CAR) method to create liquid hydrocarbon fuels, in which biomass serves as the carbon source and carbon-free energy serves as the hydrogen source. A procedure has been developed to co-feed a biomass gasifier with H₂ and CO₂ regenerated from the H₂-CO to liquid conversion reactor in order to put this idea into practise. Several key benefits of the H₂CAR process have been established through modelling of this biomass to liquids process. I Other routes that only use biomass to support the whole transportation sector require about 40% less land area than is required to cultivate the biomass. (ii) The H₂CAR can provide 30% of the transportation fuel used in the United States, according to estimations in the literature, but known technologies can only produce 1.366 billion tonnes of biomass annually.

Bertil B Fredholm, Bengt Norden, June 2010. Because readily available fossil fuel is becoming scarcer and because there are environmental concerns, it is necessary to use less fossil energy for transportation. The idea of "peak oil" is briefly discussed in this article. Second, a workable strategy for cutting back on the usage of fossil fuels for transportation developed by two British commissions is provided. The introduction of electric vehicles is a significant aspect. This brings up the third topic discussed in this article: how battery technology will be able to fulfil the growing demands set by the transportation industry.

World Bank Transport Anchor group, 2011, Washington. It explains that high volatility in the world prices of crude and refined petroleum has been a feature of the global economy in the last decade. Crude oil prices increased in a higher rate. These changes were all reflected in retail prices for transport fuels. Retail prices of gasoline and diesel in SSA countries are among the highest in the world. Increase in fuel prices adversely affect SSA countries export competitiveness.

Dhani Setyawan, 2013 Other energy measures, such as energy diversification and energy conservation, have been hampered by Indonesia's policy of fuel price subsidies. This study aims to examine how the economic sector would be affected by the increase in fuel prices. The IO table analysis of Indonesia in 2005, a 66 X 66 classification of domestic transactions based on producer prices, is used in this study. This research investigates how the economic sector will be affected by fuel prices rising by 10%, 20%, and 30%. According to the estimate, the transportation industry would suffer greatly as a result of the rising cost of fuel. The government ought to protect the industries that felt the brunt of the rise in fuel prices.

Michael Gelman, 2016. This study makes estimates of how changes in fuel prices affect overall consumer expenditure. For identification, it makes use of the disparate effects on different consumers of the sharp, significant decline in gasoline prices in 2014. The implementation of this estimating approach makes use of extensive, high-frequency data at the transaction level for a wide panel of people. Out of unexpected, long-term shocks to income, the marginal propensity to consume (MPC) is roughly one. This estimate accounts for the elasticity of the demand for gasoline and possible slow price sensitivity. The high MPC suggests that fluctuations in gas prices have significant aggregate effects.

Aswin Sivarajan, Biwin P Mathew and Anush Gowda, 2018. India, one of the world's largest and fastest-growing energy consumers, has relied largely on crude oil for both its energy production and consumption needs. The public has long been concerned about the rising demand for fuel and the rising cost of that fuel. The goal of this study is to comprehend the reasons and repercussions of recent price increases that have affected the economy as a whole and offer a remedy to deal with this externality.

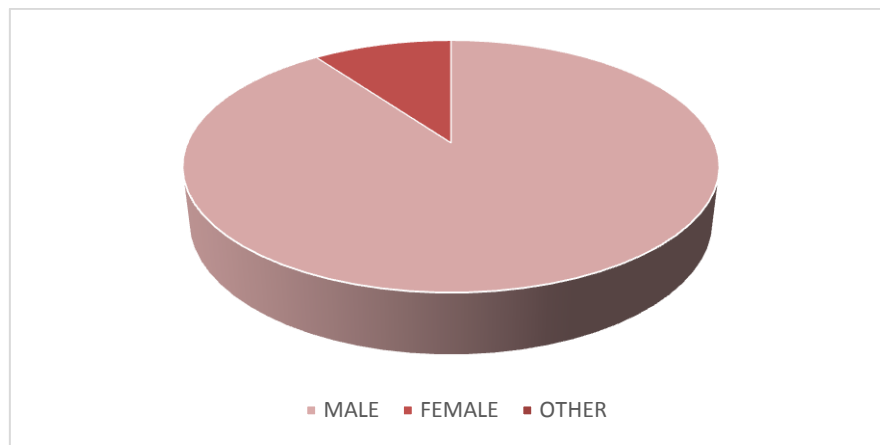
Viktor Boman, 2019. Oil price shocks and their effects on the economy have been a hot topic among economic researchers and practitioners since since the end of World War II. Early empirical studies indicate that the price of oil has fluctuated multiple times in the late 20th century. Unexpected developments have a number of detrimental repercussions on nations' economies. The majority of study, however, mainly pertains to oil-importing nations, and oil shocks aren't predicted to have the same effects on those that export oil. Furthermore, the strength of the connection has recently come under reconsideration as many nations move away from their reliance on oil and toward alternate energy sources which examining the connection between oil shocks and consumption for the small democratic economy is the goal of this study.

Thus the review of the existing studies related with our central theme. The theoretical studies explain the various aspects of the economy which are related to the socio-economic impact of fuel prices. The chapter discussed different articles on sources of various fuels, calculation of fuel prices, solutions for the fuel price problems...etc. By reading this article it helps to know about the conditions of the economies when the fuel price is questioning the world countries.

V. Data Analysis And Interpretation

The study focusses on Manjeri Municipality in Malappuram District in the state of Kerala, India, with a population of 97104 inhabitants at the 2011 Census. It is situated 12 Km from Malappuram and 45 Km from Calicut railway station. 20 Km from Angadipuram /Tuvvur railway stations. The study conducted to analyze the impact of fuel price and consumption expenditure among the people in Manjeri Municipality. Samples of 30 families were taken to make analysis. The data is analyzed and presented in the form of table and graphs with necessary interpretation. Various types of statistical methods are used to analyze the data. The variables used in the study are gender, age, marital status, monthly income, monthly expenditure...etc

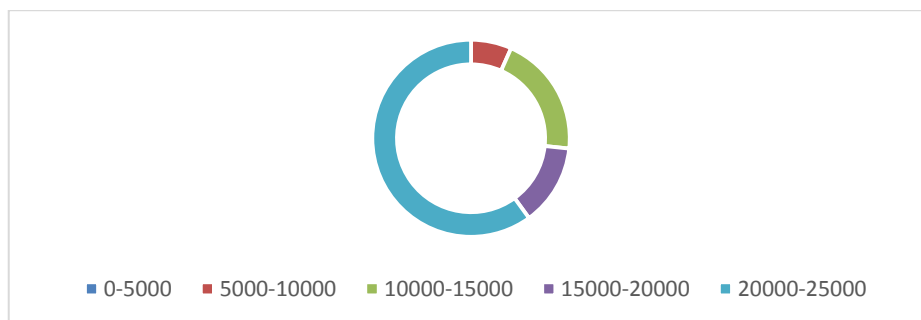
Figure V.1 Gender wise classification of respondents



Sources: Primary survey conducted in Manjeri Municipality on 2022

The above figure show that there are 90% of respondents are male and the remaining 10% are female. There are no respondents in the category of other. We can conclude that mostly males are responded to this study. The above table and figure 4.2 show the age wise classification of the respondents. From the table we can understand that 6.67% of the respondents belong to the category of 20-30. 13.33% of the respondents belongs to the category of 40-50. 26.67% are belongs to the category of 40-50. And the remaining 53.33% of the respondents belongs to the category of above 50 years. We can conclude that most of the respondents are above 50 years. The above table and figure reveal that 96.67% of respondents are married. But 3.33% of respondents are in the unmarried category. There are no respondents in the category of other. Most of the respondents are married.

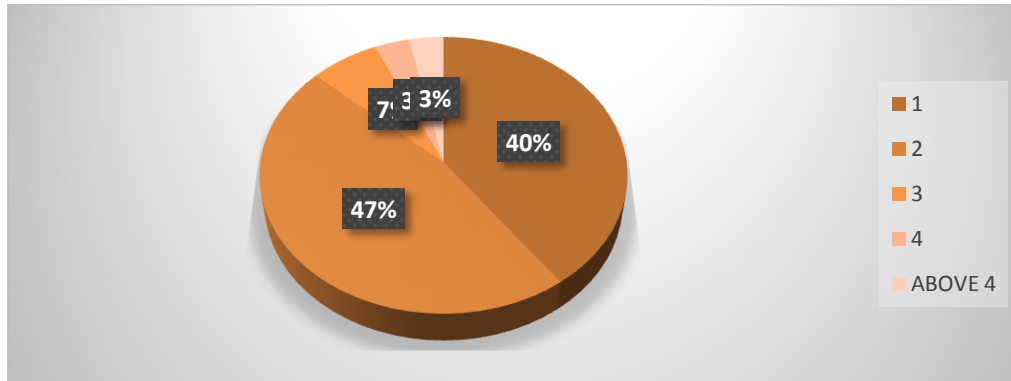
Figure V.2 Monthly Expenditure



Sources: Primary survey conducted in Manjeri Municipality on 2022

The above figure show that there is only one family having the expenditure of 5000. 6.67% of the respondents have monthly expense between 5000 and 10000. 20% of them consume the amount between 10000 and 15000. There are 10% have an expense between 15000 and 20000. The major of respondents (60%) had an expenditure above 20000. We can conclude that the spending habit of the people are comparatively higher in this study.

Figure V.3 Number of Vehicles



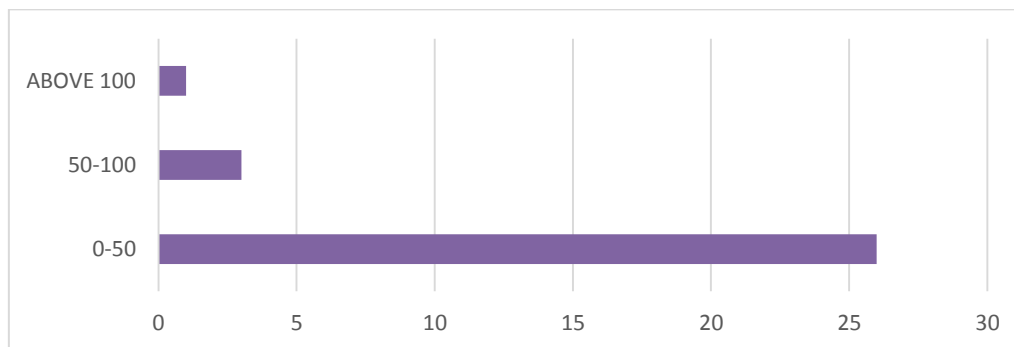
Sources: Primary survey conducted in Manjeri Municipality on 2022

The above figure implies that 40 % of the respondents have 1 vehicle. Major respondents (ie,46.67%) have 2 vehicles in their garage. 3 vehicles owned by 6.67% of them. Only 3.33% of them have 4 vehicles. And the remaining 3.33% have vehicles more than 4. In this analysis we can conclude that each and each families are having one or more vehicle.

Table V.1Tavel per day (in km)

DISTANCE	NO OF RESPONDENTS	PERCENTAGE
0-50	26	86.67
50-100	3	10
ABOVE 100	1	3.33
TOTAL	30	100

Figure V.4 Travel per day



Sources: Primary survey conducted in Manjeri Municipality on 2022

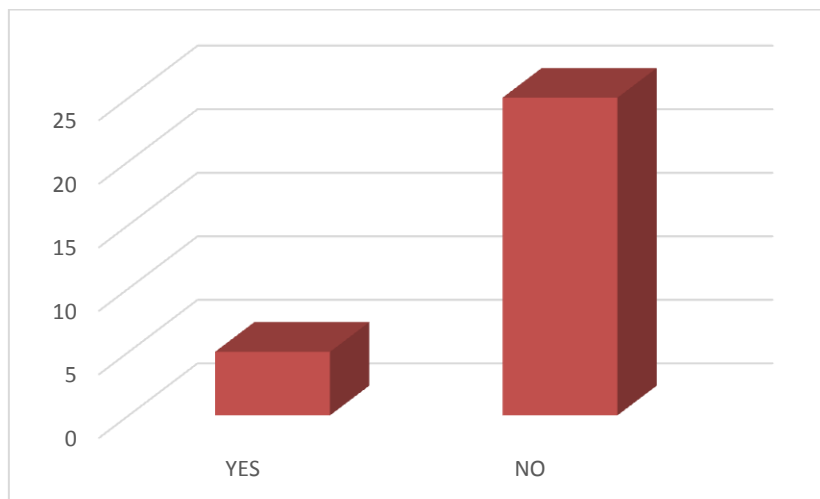
Most of the respondents (86.67%) travelling less than 50 kilometers per day. 10% of respondents travel between 50-100 kilometers in a day. Only 3.33% of them travel morethan 100kilometer in a day. We can conclude that most of respondents are travelling 0 to 50 km in a day.

Table V.2 Monthly fuel Expenditure

MONTHLY EXPENSE	NO OF RESPONDENTS	PERCENTAGE
0-1000	1	3.33
1000-2000	2	6.67
2000-3000	3	10
3000-4000	7	23.33
4000-5000	11	36.67
5000-6000	2	6.67
6000-7000	4	13.33
TOTAL	30	100

The figure reflects that only 3.33% of the respondents consume fuel less than 1000. Most of them (ie,36.67%) consume fuel in between 4000 to 5000. 13.33% of the respondents spend more on fuel (above 6000). In this study we can find out that expenditure on fuel is an important part of the total expenditure.

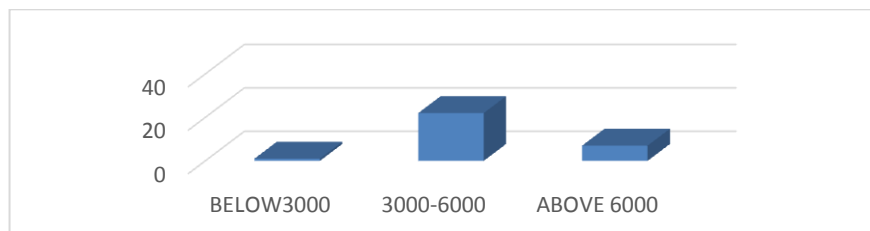
Figure V.5 Change of transportation mode



Sources: Primary survey conducted in Manjeri Municipality on 2022

16.67% of the respondents opiniated to change transportation from private to public. But the remaining 83.33% are not willing to change the transportation mode. The findings of this analysis that most of the people are not willing to change the transportation mode from private to public, may be the cost of transportation are equal in both of them.

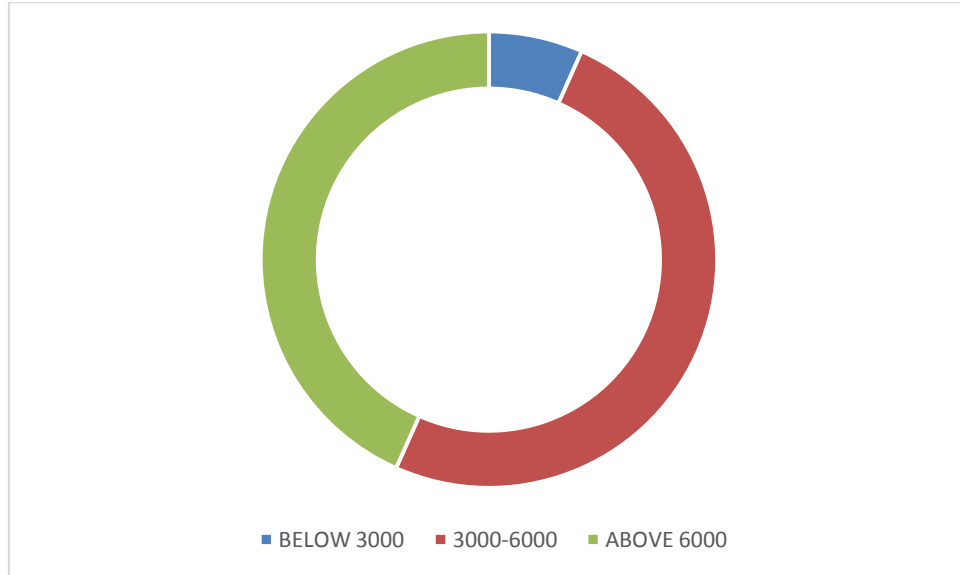
Figure V.6 Monthly Expenditure for Consumer Durables



Sources: Primary survey conducted in Manjeri Municipality on 2022

The above figure show that only 3.33% of the respondents are consuming less than 3000. Most of them (73.33%) are consuming between 3000 and 6000. The remaining 23.34% are consuming more than 6000. In this study we can understand that the expenditure on consumer durable is high as much as the expenditure on fuel.

Figure V.7 Monthly Expenditure on Food items



Sources: Primary survey conducted in Manjeri Municipality on 2022

6.67% of the respondents are consuming less than 3000 per month. 50% of them consumes food items in between 3000 and 6000. Remaining 43.33% of the families consuming more than 6000. We can conclude that food expenditure is also higher in the total expenditure of a person.

Table V.3 Monthly Expenditure on mobile Recharge

EXPENSE (Rs)	NO OF RESPONDENTS	PERCENTAGE
BELOW 100	0	0
100-200	3	10
200-400	12	40
ABOVE 400	15	50
TOTAL	30	100

Sources: Primary survey conducted in Manjeri Municipality on 2022

The above table and figure show that no one spend less than 100 on mobile recharge. 10% of respondents are spend between 100-200. And 40% of them consume in between 200-400. Most of them (50%) spending more money on mobile recharge. This study found outs that internet usage is very high among the respondents and most of them spends more than 400 on mobile recharging.

V.2 Simple Correlation

- It is a statistical technique that can be used to study the relationship between two or more variable.
- Two variables are said to be correlated if the change in one variable results in a corresponding change in the other variable.
- Example: Fuel cost and Consumption expenditure
- A survey conducted in order to identify the relation between fuel cost and consumption expenditure.

SL.NO	FUEL COST	CONSUMPTION EXPENDITURE
1	500	2500
2	1500	7500
3	1500	7500
4	2500	12500
5	2500	12500
6	2500	12500
7	3500	12500
8	3500	12500
9	3500	12500
10	3500	17500
11	3500	17500
12	3500	17500
13	3500	22500
14	4500	22500
15	4500	22500
16	4500	22500
17	4500	22500
18	4500	22500
19	4500	22500
20	4500	22500
21	4500	22500
22	4500	22500
23	4500	22500
24	4500	22500
25	5500	22500
26	5500	22500
27	6500	22500
28	6500	22500
29	6500	22500
30	6500	22500

$r = 0.861953$

Correlation between fuel cost and consumption expenditure is highly positive correlation (When the values of two variables move in the same direction)

VI. Findings and Conclusion.

This study is conducted to know impact of fuel price and consumption expenditure among the people in Manjeri Municipality. For the collection of data 30 samples selected from Manjeri Municipality. The important variables used for the study are gender category, age level, monthly income, monthly expenditure...etc. From the data collection I reached into some findings.

- Most of the respondents are above 50 years.
- 90% of the respondents are males and 10% are females.
- Majority of them are married and only 3.33% are unmarried.
- 90% of the people lives in urban area.
- Most of the people are doing business and 33.33% of people depends upon daily wages.
- 16.67% of Government employees are included in this study.
- Majority of them are qualifying SSLC and at the same time 23.33% of the respondents are not qualified SSLC.
- No joint families are included in this study and most of the families are having 5-10 members.
- The most respondents they are having above 20000 monthly income is 66.67%
- The families included in the study have high spending habit and 60% of them spending above 20000 monthly.
- This study shows that families they are not having vehicle is very rare. And each respondent of my study is having one or more vehicles.
- Most of the respondents are travelling 0-50 km per day.
- The high fuel prices affected the fuel consumption and 13.33% of the respondents spending more than 6000 on fuel.
- Some of them changed their transportation mode from private to the public due to the high fuel prices
- While others thinks that both private and public transportation have same costs.
- Monthly expenditure on consumer durables is also high and 73.33% of the respondents spending 3000-6000 on consumer durables.
- Expenditure on food is also high, 43.33% spends more than 6000 on food consumption.
- Mobile phone use is very common among the respondents and 50% of them are spending more than 400 on mobile recharge.
- There is a positive correlation between consumption expenditure and fuel cost.

VI.1 Suggestions

- Changing transportation mode from private to public may reduce the cost of fuel expenditure
- Having knowledge about central and state Government taxes will help to find out the real cause of increasing fuel price.
- Reduce the price of durable goods at least.
- The real solution of this problem is increase the usage of electric vehicles.

VI.2 Conclusion

The research concluded that there is an impact of fuel price and consumption expenditure among the people in Manjeri Municipality. The increasing fuel price affects all the individuals on every sector like agriculture, industries and service sector. When the fuel price increases the price of all the products in the market also increases. We proved that there is a positive relationship between fuel price and consumption expenditure. So, when fuel price increases it affects a person's income and expenditure.

Variables like fuel price can change an economy completely. Prices are being a common factor for an economy. So that the overall performance of an economy may interrupted and the equilibrium became unbalanced. Promoting ideas like encouraging electric vehicles can bring drastic changes into the society and it will question the governments and its wrong decisions. This study will help to analyse that there is an impact of fuel price and the consumption expenditure among people.

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