

Elasticity of demand of petrol and cng



**ASSIGN
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[pic] BUSINESS ECONOMICS FINAL REPORT ON ELASTICITY OF DEMAND OF PETROL AND CNG SUBMITTED TO: SIR FAISAL SULTAN QADRI PREPARED BY: Syeda Tabinda Naz Anum Zehra Madiha Khan ACKNOWLEDGEMENT We owe our profound thanks and deepest gratitude to ALMIGHTY ALLAH, most merciful, who blessed us with determination, strength, ability and divine help to complete this report. This Report is on ELASTICITY OF DEMAND OF PETROL. This report is a part of our course titled as Business economics conducted in Iqra University. Then we would like to acknowledge our course instructor Mr.

Faisal Sultan Qadri to give us an opportunity to work on this project, and allow us to make use of our analytical abilities. It was his guidance and never ending patience that lead us to complete this report. Our special thanks to our beloved parents and friends without their support we would not be able to complete our assignment and their coordination has made us able to achieve the task in time. INTRODUCTION: High prices effect everyone everywhere, but not equally. Petroleum pricing is something that directly effects every one in society as it is also major source of power and fuel.

DEMAND:

Demand is defined as the willingness and ability of a consumer to purchase a given product in a given frame of time. DETERMINANTS OF DEMAND: Overall demand can change, moving upward or downward, because of changes in: P = price of other goods (substitutes and complements) I = income N = no. of buyers T = tastes and preferences Ex = expectations CHANGE IN INCOME: With the rise in income of people they can increase the usage of product which will result in increased demand. CHANGE IN PRICE: Change in price will

also result in demand curve of that product. Here we will discuss the effect of change in price of petrol on its demand of consumption.

CAR AND PETROL OR CAR AND CNG (Petrol Vs CNG): The general trend is that when the price of the substitute decreases the demand of the product decreases and if the price of the substitute increases demand for the product increases. In my sense, the petrol and CNG are the substitutes to each other. Now if the prices of the Petrol increase the demand for petrol will change. Many people will tend to make their Car CNG cylindered. But if the Price of the CNG increases, but it will remain lower to the price of the Petrol, so it will not affect much more to the demand of the CNG. No one will change their CNG Kits.

So it means that the petrol is more elastic than the CNG in terms of Demand. Petrol has more elasticity than CNG. In Pakistan the majority of private vehicles have converted to CNG because of cheaper price as compared to petrol. Only luxury cars and official vehicles now run on petrol. Almost all car manufacturers in Pakistan now produce company fitted CNG kit versions. Recent hikes in CNG prices have downplayed the ambitious ventures of some of the stakeholders in this sector. It is expected that price of the CNG and Kits will come down as competition among manufacturers grows.

LandiRenzo Pakistan is also exporting CNG kits to various countries including China, Brazil and Italy. Almost 2 million vehicles on the country's roads have dual fuel options. ELASTICITY OF DEMAND: Given are the prices and quantity of petrol showing elasticity of demand after an increase in price of petrol: When price of petrol was 31.8/litre in 2000, using cng in cars was not

common but as petrol prices began to raise many people be likely to make their Car CNG cylindered because cng prices were very cheap and stable as compare to petrol prices.

Now the current price of petrol is 66/litre and the price of cng is 48/kg still very economical for users. According to International Association of Natural Gas Vehicles, as of December 2008, Pakistan has the world's highest number of vehicles running on compressed Natural Gas (CNG). The number is 2 million. Pakistan also has the World's highest number of CNG refueling stations. Because Petrol prices in Pakistan are among the highest in the region as well as natural gas is found abundant and locally in Pakistan so this also very major reason of its cheapness.

In 2000 the total number of vehicles in Pakistan was 4.9 million which has increased to 8 million in 2009. By March 2006 about one million vehicles were converted to CNG as compared to 700,000 vehicles during the same period last year, showing an increase of 43 per cent. With these developments Pakistan has become the leading country in Asia and the third largest user of CNG in the world after Argentina and Brazil. We can calculate the elasticity of petrol easily by considering its change in price within year.

Price	Quantity
59	8000000 million
66	6000000 million

Solution: Formula required for cross price elasticity: $\frac{\text{change in quantity}}{\text{change in price}} \times \frac{P_Y}{Q_Y}$

$$\frac{2\text{million} \times 62.5}{7\text{million}} = \frac{285714.28}{0.000009} = 2.57$$

Hence demand is elastic and petrol and cng are substitutes. GRAPH SHOWING ELASTICITY OF DEMAND OF PETROL: [pic] References: <http://www.pakistaneconomist.com/issue2002/issue4/f.htm> <http://pakistaniat.com/2009/07/14/pakistan->

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