Free price and quantity of milk case study sample

Business, Marketing

This paper analyzes the effects of certain events on the price and quantity of milk, considering that other factors are constant and equal. The analysis includes information about changes in quantity supplied and quantity demanded, and shifts in the demand curve and the supple curve. Analyzed events appear as subheadings throughout the paper.

- A scientific study shows that consumption of milk is beneficial for healthy bones

First of all, let us analyze the effect that this event would have on the quantity demanded of milk on the market. According the law of demand, quantity demanded of a good decreases when the price of this good increases, other things equal (Mankiw, 2012). So, price and demand are inversely related. However, price is not the only factor that influences changes in demand. In this example, the results of the scientific study increased the value of milk in the eyes of the customers, and they would want to buy more of this good even though the price did not drop. Consequently, this discovery would increase the quantity demanded of milk. Now, at any given price, the buyers would be willing to purchase more milk. Because of the increase in demand, the demand curve would shift to the right. Next, we will take a look at the changes in supply that would follow this event. The law of supply states that considering other factors are equal, the quantity supplied of a good increases when the price of this good increases (Mankiw, 2012). Therefore, price and supply are directly related. Because of the increase in demand, the suppliers of milk would be motivated to produce more and to increase prices, because this is a natural response of manufacturers on increase in demand for their goods. Hence, the quantity

supplied of milk would increase, and the supply curve would shift to the right. Naturally, customers would be willing to pay more for milk only up to a certain point, after which the price would become too high for them. As a result, at a certain price, quantity supplied and quantity demanded would settle. This is called the market's equilibrium, and represents a situation in which the market price has settled on a level at which quantity demanded equals quantity supplied (Mankiw, 2012). Eventually, actions undertaken by sellers and buyers generally adjust markets towards the equilibrium of demand and supply.

Therefore, in the event of a scientific discovery that milk is substantially more beneficial for healthy bones than thought initially, both quantity demanded and supplied of milk would increase as well as the price, and the demand and supply curves would shift to the right until a new point of equilibrium would be reached.

- There is an outbreak of mad cow disease

This unfortunate event would have a completely opposite effect on the price and quantity of milk. Quantity demanded of milk would drop, because households would become extremely cautious in regards to this good. As a result, the demand curve would shift to the left. Sellers would react correspondingly. Reduced demand would force the suppliers to decrease prices, and, consequently, produce less milk. Hence, the quantity supplied of milk would drop, and the supply curve would shift to the left as well. Most likely, a surplus of milk would occur. A surplus represents a situation where quantity supplied exceeds the quantity demanded (Mankiw, 2012). Given the serious threat of the mad cow disease outbreak, people would not purchase

much milk even given the reduced prices. Obviously, this situation would last only for a relatively short period of time, until there is some official proof that consumption of milk is safe.

Therefore, if there was an outbreak of mad cow disease, both quantity demanded and quantity supplied of milk would decrease, as well as its price. Supply and demand curves would shift to the left, and there is a high possibility that a surplus would occur.

- The price of almond milk decreases

Almond milk is a substitute product of a dairy milk. Generally, substitutes are pairs of goods that are used interchangeably, in place of each other (Gärtner, 2006). A fall in price of a substitute usually results in decreased demand for another good. Therefore, the quantity demanded of dairy milk would drop if the price of almond milk decreased. Sellers of dairy milk would lower prices, and the quantity supplied would decrease as well, until an equilibrium price would be reached. Supply and demand curves of dairy milk would shift to the left. The situation with the price and quantity of almond milk would be totally different. Both quantity supplied and demanded would increase, as well as the price, until a new market equilibrium would form. Supply and demand curves of almond milk would shift to the right.

- In order to promote healthy families, a price ceiling on milk is implemented

As the initial price and the price set due to the implementation of the price ceiling is not indicated, it is necessary to illustrate two potential outcomes of this event in terms of their effect on the quantity supplied and demanded of milk, and regarding the shifts in the supply and demand curves. Price ceiling, depending on the newly set price, can be either not binding, or become a

binding constraint. In the first scenario, the price ceiling fixes the price on a level above the market price. Considering the market equilibrium concept discussed earlier, this scenario will not majorly affect the market situation. Consequently, both quantity supplied and demanded, and the supply and demand curves will remain on relatively the same levels and positions. However, if the price ceiling is below the equilibrium price, it forces the sellers to lower the prices of milk. As a result, according to the law of supply, sellers limit the quantity supplied of milk. At the same time, the quantity demanded of milk rises, due to the effects of the law of demand that follow a decrease in price. Consequently, a shortage occurs. There are more people willing to buy milk than sellers are willing to supply.

Therefore, generally, when the government sets a binding price ceiling in the framework of a competitive market, a shortage occurs, and sellers must distribute the scarce good between a large quantity of potential buyers (Mankiw, 2012).

- Suppose Johnny drinks 4 cups of milk every day no matter what the price. What kind of elasticity does it have?

Demand can be elastic, inelastic, and unit elastic. In the first case, an increase in price is followed by a larger percentage decrease in demand. In the second case, if the price rises, demand drops by a smaller percentage. If the demand is unit elastic, a percentage increase in price is followed by exactly the same percentage decrease in demand. For Johnny, changes in price do not affect the quantity of milk he consumes at all. As price elasticity of demand represents what percentage change in quantity demanded occurs in response to percentage change in price (Sloman, 2006), in Johnny’s case,

elasticity of milk is 0, because there is no changes in quantity demanded, regardless of the changes in price. Therefore, Johnny’s demand for milk is perfectly inelastic.

- Suppose that when the price of milk increases by 40%, the percentage change in quantity demanded by consumer is reduced by 10%. Calculate the elasticity

In this event, price elasticity of demand will equal to 10%/40% = 0. 25. In this case, milk represents a good with an inelastic market demand, as the decrease in quantity demanded is much lower than the increase in price. Some goods with similar demand elasticity are referred to as necessities, because people cannot completely stop consuming the good, but can only limit their consumption to some extent, even if the prices rise substantially.

- Based on your answer to Question 3, What happens to total revenue when the price of milk is increased. Why?

Total revenue represents the amount of money paid by consumers and received by sellers of a good. It is computed as the price of the good times the quantity sold. Because total revenue depends on both the price of the good and the quantity demanded, it chiefly depends on the price elasticity of demand for the good. When demand is inelastic, total revenue increases with the rise of price. When demand is elastic, they move in the opposite directions. Finally, when the demand is unit elastic, total revenue remains the same. If milk’s price elasticity of demand is equal to 0. 25, the demand is inelastic, so the total revenue will increase. This is because a 40% increase in price drops the demand by only 10%. Therefore, sellers of milk are able to make a lot of money, and their total revenue increases, as the majority of

people are still willing to buy milk, even though the price has risen substantially.

References

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