

How pvr's will affect the demand economics essay



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As the PVR sales will go up the demand from advertisers will come down. As the viewers who have PVR sets will tend to skip the commercials. Whereas the advertisers earn from the viewership of the advertisements and not the viewership of the show in which they are advertised. With this the demand in the market will go down drastically, it therefore will have no impact in the market if the people buying the pvr start skipping the commercials, the efficiency level of the advertisement will be dropped. Whereas on the other hand if the pvr's are not there then the demand from advertisers will not go down. Hence we can see the inverse relationship of both of them.

Suppose you are in charge of setting the price for commercial advertisements shown during *Enemies*, a top network television show. There is a 60-minute slot for the show. However, the running time for the show itself is only 30 minutes. The rest of the time can be sold to other companies to advertise their products or donated for public service announcements. Demand for advertising is given by:

$$Q_d = 30 - 0.0002P + 26V$$

where Q_d = quantity demanded for advertising on the show (minutes), P = the price per minute that you charge for advertising, and V is the number of viewers expected to watch the advertisement (in millions).

All your costs are fixed and your goal is to maximize the total revenue received from selling advertising. Suppose that the expected number of viewers is one million people. What price should you charge? How many minutes of advertising will you sell? What is total revenue?

We can see from the demand curve that as the price increases the quantity demanded will come down. And as the number of viewers increase so will the quantity demanded will also increase.

As we want the revenue maximization, we bring in the concept of marginal revenue. As for maximization $MR = 0$

From the demand curve we have: $Q_d = 30 - 0.0002P + 26V$

Taking out the value of P from here and substituting the value of V , the number of viewers which is 1 million.

$$P = 280,000 - 5000Q_d$$

We know that the MR has the same intercept as the Price equation but the slope is doubled therefore:

$$MR = 280,000 - 10000Q_d$$

For revenue Maximization: $MR = 0$

$$Q_d = 28 \text{ minutes}$$

The Price at which the 28 minutes will be charged is: 140,000

million/minute. Since $TR = Q_d * P$

$$TR = 3920,000$$

Suppose price is held constant at the value from part (a). What will happen to the quantity demanded if due to PVRs the number of expected viewers falls to 0.5 million? Calculate the “viewer elasticity” based on the two points. Explain in words what this value means.

Keeping price P constant:

$$Q_d = 30 - (0.0002 * 140,000) + 26(0.5) = 15$$

The optimal quantity has changed to 15 from 28 when the volume changed to 0.5 million from 1 million. Hence,

$$Q_1 = 28, V_1 = 1$$

$$Q_2 = 15, V_2 = 0.5$$

The elasticity is percentage change in the demand / percentage change in the viewers. Therefore elasticity becomes: 0.91.

Therefore we can say that 1% increase or decrease in the viewers will cause a subsequent 0.91% increase or decrease in the Quantity demanded.

As more viewers begin using PVRs, what happens to the revenues of the major networks (CBS, NBC, ABC, and FOX)?

As and when the popularity of the PVR will grow, the revenue of the major networks will come down since $TR = Qd * P$.

In this case the price remains constant but the quantity demanded will come down, hence bringing the TR also down. As with usage of PVR, people will skip the advertisements and the demand for the advertisement going down. The networks are dependent on the advertisers for their revenue coverage as a show of 60 minutes includes 30 minutes of commercials. Now if there will be no viewership of advertisements, there will be less advertisements on air and hence affecting the revenue of the major channels also.

Discuss the long-run effects if a significant proportion of the viewer's begin adopting these "advertising snipping" systems.

The long run effect of more number of people start adopting the advertisement skipping systems will be very deep and harmful for the advertising agencies and the major channels. As with increasing number of people buying the pvr the decreasing will be the viewership of the commercials which can lead to the major channels into losses as they will not be able to cover their costs efficiently. Some alternative should be adopted by the major channels that could cover the costs and lead them to some profits. The major source of the major channels to gain profit is

through advertisement. Now since the advertisement option is very fading they can directly charge from the end user, the people who are watching the channels. As this might lead to some profits to the major channels.

What advice would you give the major commercial networks and producers of programming for these networks as more consumers adopt PVRs?

A change is required with the change in the Global market. The strategies have to be renewed every time again and the change has to be speedy in nature because there is a fear of extinction otherwise. My suggestions for the commercial networks and the major channels are that they should immediately change their strategy. Either they should start charging the viewer's straight away or they should pursue the viewer's somehow to watch the commercials. This can be done by probably making the advertisement interesting and funny enough so that the viewers don't feel like skipping it. Or the advertisement should have some kind of intangible connect with the viewers. The medium of the advertisements can also be made more divergent like hoardings display or in the theatres during the start of the movies or involving an appreciated celebrity. Hence they will have to open up to new ideas and thoughts in order to save themselves from making losses.