

Advertising Elasticity Of Demand - AED - Could Be Negative

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Abstract:

Advertising Elasticity of Demand (AED) is calculated as percentage change in demand divided by percentage change in advertising expense. And all management literature argues that advertising elasticity of demand is positive. Economists also have a similar term called Price elasticity of Demand (PED), which is calculated similarly as percentage change in demand divided by percentage change in price. And Price Elasticity of Demand (PED) is usually negative. But if advertisement increases prices is it possible that it will reduce demand? Of course the argument will be that advertisement increases appeal of product and hence increase demand. But what if the loss of appeal due to increase in price is more than increase in appeal due to increase in advertisement expense. Will then Advertising Elasticity of Demand be negative?

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I. Introduction

Can advertisement be actually counterproductive? Rationally one assumes that if you increase advertisement expense, it would increase appeal of the product to the customer and hence the demand. But equally it is true that if price of a product increases the demand reduces.

Management Literature has a term Advertising Elasticity of Demand which measures sensitivity of demand to advertising expense and is always positive. Economic Literature has a term Price Elasticity of Demand, which measures sensitivity of demand to price and is usually negative. If Advertisement increases price of product and if Price Elasticity of Demand is negative, shouldn't Advertisement Elasticity of Demand also be negative.

This paper questions the premise that Advertising Elasticity of Demand is always positive.

II. Advertising Elasticity of Demand and Price Elasticity of Demand

Advertising will increase demand. Advertising Elasticity of Demand measures the effectiveness of advertising in increasing demand relative to increase in advertising expense.

Mathematically Advertising Elasticity of Demand (AED) measures percentage change in demand of good divided by percentage change in advertisement.

Advertising Elasticity of Demand (AED) = % change in quantity demanded/% change in advertising

Advertising Elasticity of Demand is usually positive. Of course negative advertisement can lead to reduction in demand.

In Economics, there is law of demand, which states that all things being equal, an increase in price of good reduces demand. Of course there are exceptions to this and that is Veblen goods and Giffen goods. Here the increase in price increases demand and reduction in price reduces demand. Veblen goods are luxury goods where increase in price increases the status and hence demand. Giffen goods on the other hand are inferior goods whose consumption increases as price increases since people consume more as their real income falls. But except for these rare exceptions the law of demand is that as price of good increases the demand for that good reduces.

Price Elasticity of Demand = Percentage Change in Quantity Demanded/Percentage Change in Price

Now as can be deduced from law of demand since an increase in price of product reduces demand, hence Price Elasticity of Demand (PED) has to be negative.

But if advertisement increase price, then will not the demand for product reduce. In defining Advertising Elasticity of Demand (AED), it is assumed that while increase in advertisement will increase demand, increase in advertisement expense will not increase price.

To some extent there is a truth to it. Since advertisement forms a small component of costs. Say 10%. Now even if advertisement expense increases by 10%, this will increase price of product by only 1% and this may not have substantial downward effect on demand. On the other hand the increase in demand due to advertisement could be substantial and will offset the minimal decline in demand due to small increase price.

But what if advertisement forms a significant portion of cost? Let us assume that advertisement is 50% of costs and that is not so absurd. After all they say that the marketing cost of some soft drinks is 4 times the manufacturing costs. Now say the advertisement costs increase by 20%. This will obviously increase the price of goods by 10%. Now what if this increase in advertising expense by 20% does not increase demand much? But on the other hand the increase in price of product by 10% reduces demand for product by 10%.

In this case

Advertising Elasticity of Demand = % change in quantity demanded / % change in Advertising

Advertising Elasticity of Demand (AED) = $-10/20 = -0.5$

Thus advertising elasticity of demand is negative

III. Failure to see the obvious

Why it is then that management literature argues that advertising elasticity of demand is always or usually positive? This is because while correctly arguing that advertisement can only increase demand and never reduce demand, the literature fails to account for the fact that advertising also increases prices and this could reduce the demand.

In economics there is the concept of "Ceteris Paribus" and that means all things being equal. The Management literature in rightly arguing that advertisement can only increase demand, however minimal ignores the fact that all things are not equal. In increasing the advertising expense you are also increasing the price and this can actually reduce the demand.

IV. Conclusion

Advertising Elasticity of Demand (AED) is argued to be always positive because advertising can only increase demand. And in arguing so, it is assumed that the increase in price of product due to advertisement is so minimal that the decrease in demand due to increase in price due to increased advertising will be offset by increase in demand due to increase in advertisement. However if the decrease in demand due to increase in price due to increase in advertisement is greater than increase in demand due to the increase in advertisement then the Advertising Elasticity of Demand(AED) will be negative.