

Last week we discussed a very tricky CR question based on conditional statements. This week, we would like to discuss another CR question based on necessary conditions. Note that you don't need to be given 'only if' or 'only when' to mark a necessary condition. The wording of the statement could imply it. You need to keep a keen eye to figure out necessary and sufficient conditions.

Question: Successfully launching a new product for supermarket sale requires either that supermarkets give prominent shelf space to the product or that plenty of consumers who have not tried it seek it out. Consumers will seek out a new product only if it is extensively advertised, either on television or in the press. One way for a manufacturer to obtain prominent shelf space for a new product is to promote it in trade journals.

If the statements given are true, which of the following must, on the basis of them, also be true?

- (A) Provided that a manufacturer promotes a new product in trade journals, the product will have a successful launch.
- (B) If consumers who have not tried a new product do not seek it out and if its manufacturer does not promote it in trade journals, then it will not have a successful launch.
- (C) Any new product that is advertised extensively on television will be sought out by many consumers who have not tried it.
- (D) If a new product is not given prominent shelf space by supermarkets and if television advertising is too expensive, a successful launch of the product will not occur without press advertising.
- (E) If a new product is successfully launched for supermarket sale without extensive advertising, then the manufacturer must have promoted it in trade journals.

Solution:

Notice what each statement of the argument implies:

“Successfully launching a new product for supermarket sale requires either that supermarkets give prominent shelf space to the product or that plenty of consumers who have not tried it seek it out.”

Note the use of the word 'requires'. It means 'successful launch' NEEDS 'prominent shelf space' or 'consumer seeking'.

Also note that they may not be enough for a successful launch. One of them is necessary; it may not be sufficient.

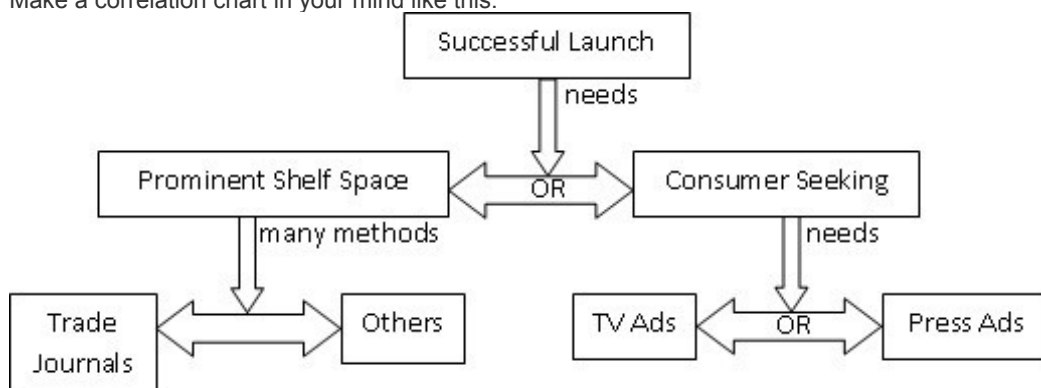
“Consumers will seek out a new product only if it is extensively advertised, either on television or in the press.”

'Consumer seeking' will happen only if (which implies a necessary condition, not sufficient) 'extensive TV advertisement' or 'press advertisement' takes place. Either of these two is needed for 'consumer seeking' but 'consumer seeking' may not happen even after extensive advertising.

“One way for a manufacturer to obtain prominent shelf space for a new product is to promote it in trade journals.”

There are many ways of obtaining 'prominent shelf space'. One way is 'promote in trade journals'.

Make a correlation chart in your mind like this:



Let's look at the options one by one now.

(A) Provided that a manufacturer promotes a new product in trade journals, the product will have a successful launch.

As discussed above, prominent shelf space or consumer seeking is necessary for a successful launch. They may not be sufficient for a successful launch. So we cannot say that promoting a new product in trade journals will lead to a successful launch.

(B) If consumers who have not tried a new product do not seek it out and if its manufacturer does not promote it in trade journals, then it will not have a successful launch.

‘Consumer seeking’ does not happen. Then ‘prominent shelf space’ is a must. One way of obtaining prominent shelf space is promoting in trade journals. There could be many other ways too. So it is not necessary that successful launch did not happen.

(C) Any new product that is advertised extensively on television will be sought out by many consumers who have not tried it.

As discussed, advertising is necessary to make consumers seek out a product, not sufficient. Consumers may still not seek out the product.

(D) If a new product is not given prominent shelf space by supermarkets and if television advertising is too expensive, a successful launch of the product will not occur without press advertising.

Since prominent shelf space is not obtained, consumer seeking is a must for successful launch. For consumer seeking, extensive advertising in either TV or press is must. If TV advertising is out of reach, press advertising is a must. Hence, the statement is true.

(E) If a new product is successfully launched for supermarket sale without extensive advertising, then the manufacturer must have promoted it in trade journals.

Not necessary. As discussed, trade journals are only one way of getting shelf space. There could be other ways too.

Answer (D)

I hope using this example we could shed some light on necessary and sufficient conditions.