CBA 2020 (Summer)

PROBLEM SET

Suppose you are a *manufacturer* facing a market which has changed in its composition since the last time you set prices. There are two market segments: H and L, with reservations prices $20 and $10, respectively, for a unit of your product. The purchase frequency is 1 unit every quarter. Your variable costs are $2/unit. You sell through a large *retailer* whose fixed costs of doing business with you are $25/quarter.

Until last month your market consisted of 50 people with the $20 reservation price and 50 people with the $10 reservation price, and your price to the retailer (wholesale price) was $19.50. What price would the retailer set in that case to maximize its profit?

Now the market has changed in its composition, there are only 20 potential consumers with the $20 reservation price, the other 80 having a reservation price of $10. There are three possible options you can pursue at this point:

(a) offer a trade discount to the retailer (i.e. offer a new wholesale price, with the amount of the trade discount to be determined).

(b) don't change the wholesale price from its original value, but offer a coupon to consumers as a free-standing insert in the local newspaper (the coupon value is to be determined). The coupon will have a limited expiry date and it will cost segment H – and only segment H – $4 to redeem (The coupon redemption cost is borne solely by segment H consumers and it is neither revenue for the manufacturer nor the retailer).

(c) offer a coupon to consumers and offer a trade promotion to the retailer (both the coupon value and the trade deal will have to be determined).

Compute the new wholesale and selling prices in each of the three cases. Assume that the manufacturer first sets the wholesale price and coupon value and then the retailer sets the selling price.

Which option should the manufacturer pursue? Please explain why and show your analysis.