# Consumer's surplus essay

(a) How many books should Borders order? What is its expected profit? How many books does it expect to sell at a discount?

Ans: As per statement, we can not say accurate amount of selling books, as we all know that we can only predict the amount on the basis of demand of that books with market survey. So, standard deviation of 5000 can be managed, thus (20000 + 5000) = 25, 000 books should Borders order.

According to the business math rule we can calculate the expected profit of any product. The profit is calculated by subtracting the total cost from the total revenue obtained by selling x units of a product.

It means, Px = Rx – Cx Here, If we consider that total unit of book is x, then Px= Profit of x unit book Rx= Revenue earn for x unit book and Cx= total Cost for x unit book Thus, Px= 24x-12x Now, some books which is not sold in full price i. e. $24, should me sell with $3 discount per book, that means any unsold books is sell with $21/book. As per statement we can definitely assume that 5000 books (standard deviation) is not sold at the end of 2 months.

That means, (25000 – 5000)= 20000 books sell in full amount.

So, Px=[{24*(x-5000)} + (21*5000)] – 12x ={(24*20000) + 105000}- 300000 [here x= 25000 copy of books as describe] = (480000 + 105000) – 300000 = 285000 So, Total Profit expected profit is 2, 85, 000 $.

In the statement, we can easily understand that Borders order minimum 25000 books on the basis of demand of the book. It is also mentioned that

5000 normal deviation can be happen, so we can easily get the conclusion that 5000 books may be remain unsold at the end of 2 months.

(b) What is the profit that the publisher makes given Borders actions?

Ans: If we think from publisher's point of view, then production cost of a book is $1, and the publisher sells the book at the rate $12.

Now if we put the same data in the profit function formula (Kennesaw State University, 2007)

Then, Px = Rx-Cx Here, x= 25000 books order by Borders, publisher sells the book at $12 & production cost of the book is $1, so Px = (12 *25000) – (1*25000) = (300000 – 25000) = 275000 So, expected profit of the publisher is $ 275000.

(c) A plan under discussion is for the publisher to refund Borders $5 per book that does not sell during the two-month period. As before, Borders will discount them to $3 and sell any that remain. Under this plan, how many books will Borders order? What is the expected profit for Borders? How many books are expected to be unsold? What is the expected profit for the publisher? What should the publisher do?

Ans: Under this plan Borders will order 25000 books, because if at the end of the month some books will remain unsold they could even sell them at 3 discount as well as they will get 5$ from publisher. Under this circumstance, the expected profit of the Border will be 285000 + (5*5000) = 310000 This is because; in the previous scenario Borders' profit was $285000.

Now on any unsold book Border will get $5. So 5000 copy could be unsold as discussed earlier. So total profit should be $310000.

As we discussed earlier standard deviation was 5000, Actually it is based on market demand, " the market demand is the sum of the amounts demanded by each of the individuals.

" (Drexel University, 2009) we can only assume the no of sold books. The expected profit of the publisher is 275000 – (5 * 5000) = 250000 Because, for any unsold book publisher has to refund $5/book to the Borders. So the profit should be affected. No margin of the profit should be decreased.

And the profit amount will be $ 250000. The first thing publisher can do is market survey, without this they cannot get a high amount of profit.

Second, publisher can find out the break-even point, it means the value of x (no of units of the product sold) for which there is no loss or profit. (12Manage. com, 2009) We usually calculate it through Px= 0 Or, Rx= Cx= 0 (Rx= revenue earn; Cx= total cost during manufacture ) Or, Rx= Cx Lastly, we have to finalize the margin profit (Drexel University, 2009) and cut down the manufacturing cost, because fewer units are purchased in case of a higher price.

## References:

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