Cracking the PM interview 🚀

Case Study Solution - Pricing Strategy of a toothbrush that stays forever

Case Study

Imagine you work for a company that manufactures toothbrushes.

Your company has done a cutting edge innovation and created a toothbrush that lasts forever.

Now, you as a Product Manager have been given this task to create a pricing strategy for the toothbrush.

How will you go about it?

Case Study Solution - **Clarification**

Clarifications:

1. For which geography, we need to consider the pricing strategy?

Consider the pricing strategy for the US market.

2. Is there any similar product from any competitor available in the market?

No. This is first of its kind.

3. What would be pros and cons of launching this product?

Pros: The company can leverage its existing strength of toothbrush manufacturing, operations and supply chain, and become a market disruptor.

Cons: It may cannibalize the sales of its existing toothbrushes.

4. What is the current status of this development?

The company has already done R&D and created a prototype. The commercial manufacturing is yet to start.

Case Study Solution - Available Pricing models

Model 1 - Cost base:

This will provide minimum price that the company must charge its customers and may not take into account the value that customers will get. Also, since the product will have impact on future revenues - this may not be the right strategy.

Model 2 - Competitor–based pricing:

Since there's no competition, it would not be relevant.

Model 3 - Value based pricing:

This is the maximum price that the customer would be willing to pay based on the value that our product offers to them.

Since, the company would want to capture most of the value for the innovation, we can go ahead with the value-based pricing.

Case Study Solution - Lifetime Value of a Toothbrush for Company

The value of the toothbrush will be present value of all the toothbrushes the person will buy in a lifetime.

This involves time value of money - this means that the value that $100 carries today will not be same as the value $100 will carry after a few years. The inflation will decrease the value and the amount of goods I can buy today for $100, I will have to spend more money to buy same amount of good.

Assuming that cost of one toothbrush is $1, life expectancy is 70 years, and one person replaces toothbrush once in 3 months. (For simplicity, ignored infant stage or other edge cases).

Assuming a discount rate (or interest rate or inflation or rate at which money loses value) of 7%, the lifetime cost of toothbrushes will be around $57.

Pricing should be close to $57 (preferably lower) given that the company will charging the entire amount upfront and generate additional income through that money.

Calculation of lifetime value = $\$1 + \frac{\$1}{(1+0.07/4)} + \frac{\$1}{(1+0.07/4)\text{^}2} + \cdots \frac{\$1}{(1+0.07/4)\text{^}(70*4)}$ = $57

Refer to this link for details on Time Value of Money - https://www.investopedia.com/terms/t/timevalueofmoney.asp

Case Study Solution - 3 types of pricing models (1/2)

[1] Cost-plus Pricing

Cost+ pricing model is a very fundamental model that considers the cost of selling your product/service as the base for defining the price.

This basically boils down to below simple equation:

Price = Cost of the product/service + Profit

The challenge with this model arises when cost of certain components can't be attributed to each product/service being delivered. That's where certain assumptions are made to derive cost at the unit economics level.

[2] Competitor-based Pricing

This is the simplest pricing model where you base your price on the competitor's price.

You look at the features and functionalities of your product/service and then do a markup or mark down depending on your positioning.

The key point to note here is that there shouldn't be a stark difference in the cost of product/services offered by you; else, you may be offering your service at a loss.

Case Study Solution - 3 types of pricing models (2/2)

[3] Value-based Pricing

This method could be a tricky to solve but once established, this could make selling very easy.

In this method, you try to quantify the value that clients will get after buying your product/service.

Once you have quantified the value, you then try to charge a percentage of it to your clients.

The pricing remains dynamic in this case, i.e., price charged to each client may vary.

Quantifying the RoI that clients can get from your product may be hard, but the effort may be worth it.

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Thank you! 😃