Stir less products will be sold and

Business

Stir Sticks – PitchDescription of the Product: Flavored stir sticks made fromhard toffee, hard honey (candy), and frozen chocolate to spice up any drink! These tasty creations are made by freezing flavor over a Popsicle stick andpackaging in plastic wrappers. Goalfor Pitch: $20, 000 for 30% of the company. So far, we've been selling about $500 items per month and onlooking at a profit of about $4170 per month.

It costs about an average of $1. 8to make each box and we sell it for $8. 35 in the current business plan. Business ModelCost Function: C(x) = mx, as the product is made from homeand thus far requires basic ingredients. The cost of each stick is roughly $0. 80, with each Popsiclestick costing about $0.

05 and because we use high end products, the cost perflavor is about $0. 75 on average. Since we're planning on buying in bulk, thecosts are significantly lowered the more we buy. Each stick costs about $1 topackage into the box $0.

80 + $1 = $1. 8C(x) = 1. 8xThe selling price would be $5. For each $0.

15 increase in price, 10 less products will besold and the average sticks sold per month is 500. R(x) = (500 – 10x)(5 + 0. 15x)Note: x-axis is the price, and y-axis is the revenueRoots: R(x) = (500 -10x)(5 + 0. 15x)0 = (500 -10x)(5 + 0. 15x)x = 500/10, x = 50x = -5/0. 15, x = -33. 3The roots of a revenue function represent the zeros and thenegative one is disregarded.

This means that when the price is 50, $0 revenuewill be made as no one will buy the product. Maximum: R(x) = (500 -10x)(5 + 0. 15x) = 2500+ 75x – 50x – 1. 5×2 = 2500+ 25x – 1. 5x2Max Revenue =

c-(b2/4a) = 2500-(252/(4*-1. 5))

=$2604. 2 when the price is $8. 33Domain: x ? 0Range: y ? 0The domain and range cut out the negative values (losses).

New Revenue Function: R(x) = (500 –10x)(8. 33 + 0. 15x) = 4165 -75x +83.

3x – 1. 5×2 = 4165 +8. 3x– 1. 5x2Profit Function: P(x) = R(x) – C(x) = 4165 -8.

3x– 1. 5×2+1. 8x = 4165+ 8.

3x – 3. 3x2Note: x-axis is the selling price, and y-axis is the profitMaximum Profit: P(x) = 4165 +8. 3x – 3. 3x2Max Profit = c-(b2/4a) = 4165-(8. 32/(4*-3.

3)) =$4170. 22 ReflectionsOur results were somewhat realistic; however the assumptionof at least 500 items being sold per month was a little optimistic. I learnedhow important it is to do your research and know the customer demand beforedesigning a product or business plan. I also learned the correlation betweenprice and the profit is substantial because of the demand aspect. It wasdifficult to make the revenue functions and determine the price points.