

$$\text{Profit}(\text{Price}, \text{VC}, \text{Adv}, \text{FC}, \text{MarketSize}) = (\text{Price} - \text{VC}) * \text{Demand}(\text{MarketSize}, \text{Price}, \text{Adv}) - \text{Adv} - \text{FC}$$

FC = \$	20 000	per month
VC = \$	180	per sold item
Market size =	1100	potential customers
Price = \$	411	
Advertising = \$	13 383	
Profit =	\$ 74 125	=PROFIT(C7,C5,C8,C4,C6)

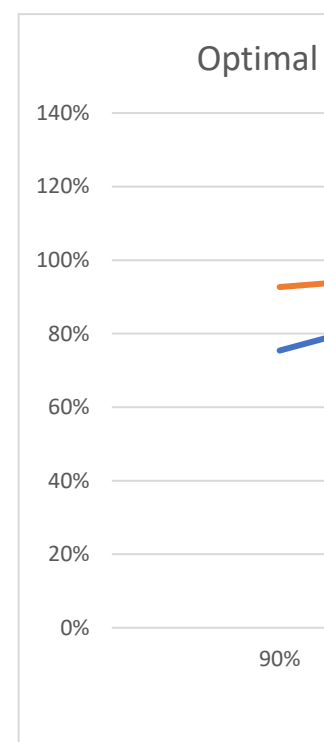
Market Size (100% = 1100)	90%	100%	110%
Optimal Advertising	75%	100%	128%
Optimal Price	93%	100%	107%

Profit (\$)		Ad		
		5000	7000	9000
Price	330	62 205.72	62 149.02	61 829.37
	340	64 871.57	64 944.43	64 736.80
	350	67 134.09	67 336.50	67 240.89
	360	68 991.80	69 323.76	69 340.18
	370	70 443.28	70 904.79	71 033.24
	380	71 487.15	72 078.21	72 318.68
	390	72 122.06	72 842.67	73 195.16
	400	72 346.70	73 196.87	73 661.38
	410	72 159.81	73 139.53	73 716.07
	420	71 560.14	72 669.42	73 357.98
	430	70 546.49	71 785.33	72 585.91

Market Size	Optimal Advertising	Optimal Price
990	10091	381
1100	13383	411
1210	17100	442

Profit
 50 346.48 =PROFIT(I12,C5,H12,C4,G12)
 74 125.00 =PROFIT(C7,C5,C8,C4,C6)
 101 237.22 =PROFIT(I14,C5,H14,C4,G14)

Advertising		
11000	13000	15000
61 331.25	60 701.75	59 970.29
64 338.81	63 800.67	63 153.78
66 943.03	66 496.26	65 933.94
69 142.44	68 787.04	68 309.29
70 935.62	70 671.59	70 278.41
72 321.19	72 148.52	71 839.91
73 297.80	73 216.50	72 992.46
73 864.14	73 874.21	73 734.74
74 018.95	74 120.39	74 065.48
73 760.99	73 953.79	73 983.46
73 089.05	73 373.21	73 487.45



price and advertising based on market size

