

Managing Pricing (III)

Introduction to Marketing

Session 21

Outline

- Basics of price and pricing
- Making pricing decisions
 - pricing structure
 - four generic pricing strategies
 - four commonly used price setting methods
 - special topic: customized pricing
- Coordinating pricing with other 3Ps

Coordinating Pricing and Product/Service Management

- Product line pricing
 - Maximizing total profits through maximizing DP and minimizing cannibalization
- Product bundling and pricing

An Example of Customized Pricing and Product Line Pricing: Fedex Rates for Zone 5 (10012 → 60201)

Weight (lb)	First	Priority	Standard	2Day	Saver
0.5	\$57.20	\$26.20	\$24.55	\$15.50	\$10.60
1	\$71.10	\$40.10	\$36.65	\$15.50	\$10.60
10	\$112.20	\$81.20	\$73.80	\$34.80	\$22.60
100	\$449.00	\$418.00	\$413.00	\$213.00	\$145.00

**Why Does
Bundle Pricing
Work?**

**An Illustrative
Example**

- Consider two segments of newspaper readers with equal size (m) and their WTPs are given below. Assume that the variable cost of the newspaper is zero.

	Sports	Business
WTP of annual subscription in Segment A	\$50	\$20
WTP of annual subscription in Segment B	\$20	\$60

- Why does bundling the sports and business sections of newspaper make sense?

**Why Does
Bundle Pricing
Work?**

**An Illustrative
Example**

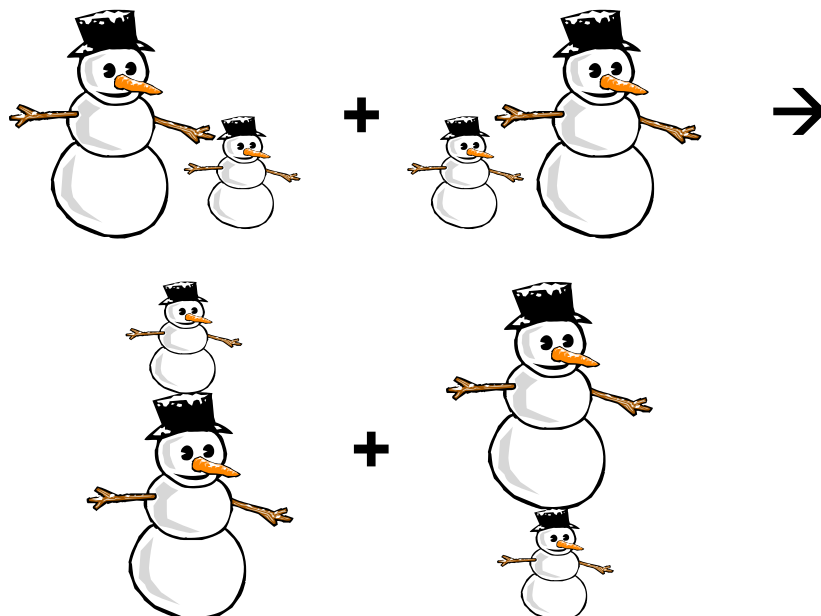
- If the sports and business sections are not bundled, i.e., they can be subscribed separately, then the optimal price is \$50 for the sports section and the optimal price is \$60 for the business section. The total revenue is $\$50 \cdot m + \$60 \cdot m = \$110 \cdot m$.
- If the sports and business sections are bundled, then the optimal price is \$70 for the bundle. The total revenue is $70 \cdot m + \$70 \cdot m = \$140 \cdot m$.

An Illustrative Example

	Sports	Business
WTP of annual subscription in Segment A	\$50	\$20
WTP of annual subscription in Segment B	\$45	\$60

	Sports	Business
WTP of annual subscription in Segment A	\$50	\$60
WTP of annual subscription in Segment B	\$20	\$20

**The idea behind bundle pricing:
Bundling reduces variations in WTP**



Coordinating Pricing and IMC (Advertising)

- More price advertising (advertising focusing on low price, e.g., “sale”)– typically increases price sensitivity and leads to lower prices
- More non-price advertising (advertising on brand and product benefits)
 - Typically increases consumer willingness to pay (WTP)
 - But increased WTP does not necessarily imply that the optimal price should be higher

Non-price Advertising: Can It Lead to Lower Price?

- Consider a simple illustrative example
 - A monopoly seller sets a single price. The variable cost of the seller is \$1/unit.
 - There are 1000 customers in a market. Each customer buys at most two units of a product. Each customer’s WTP for the first unit is \$10 and his/her WTP for the second unit is \$5.
 - With advertising, the WTP for the first unit is increased to \$12 and the WTP for the second unit is increased to \$7.

**Optimal price
without
advertising**

- The seller will price at \$10 and each customer only purchases one unit.
- The profit of the seller
 $= 1000 * (\$10 - \$1) = \$9000$

**Optimal price
with advertising**

- The seller will price at \$7 and each customer purchases two units.
- The profit of the seller
 $= 1000 * 2 * (\$7 - \$1) = \$12,000$

Some Examples



Coordinating Pricing and Distribution Channel Management:

Overcome "double marginalization"

- Intermediary often prices too high. The cause:
 - both the upstream firm and intermediary need to have a positive margin for the product they sell
 - it is called double marginalization
- Possible solutions
 - directly or indirectly force an intermediary to charge a low price (e.g., using pre-priced package, introducing competition)
 - lower the effective marginal cost an intermediary faces through creative contract design and pricing structure

An illustrative example

- Suppose a package good manufacturer selling through a retailer
 - The variable cost of the manufacturer is \$2
 - There are two segments of consumers with equal size (10K each) in the retailer's market. Willingness to pay (WTP) of segment H is \$10 and WTP of segment L is \$7
 - The retailer needs to get at least \$10K in gross profit. There is no variable retailing cost except the price that it has to pay to the manufacturer
 - The retailer will sell to both segments if it is indifferent between selling to one segment and selling to both segments

Selling directly without retailer: the benchmark

- If the manufacturer can sell directly without incurring any additional cost, it will set price at \$7 and sell to both segments, because
 - profit from pricing at \$7
 $= 2 * 10K * (\$7 - \$2) = \$100K$
 - profit from pricing at \$10
 $= 10K * (\$10 - \$2) = \$80K$

Selling through a retailer:

When will the retailer price at \$7?

- Let the wholesale price (the price that the manufacturer charges the retailer) be w
- If the retailer prices at \$10, its profit is
– $\text{profit}_{\$10} = 10K * (\$10 - w)$
- If the retailer prices at \$7, its profit is
– $\text{profit}_{\$7} = 2 * 10K * (\$7 - w)$
- $\text{profit}_{\$7} \geq \text{profit}_{\$10} \rightarrow w \leq \$4$

Selling through a retailer:

The optimal wholesale price

- If the wholesale price $w = \$9$, the retailer will price at \$10 and sell to the H segment only. The profit of the manufacturer is $10K * (\$9 - \$2) = \text{\$70K}$. The retailer's profit is $10K * (\$10 - \$9) = \$10K$.
- If $w = \$4$, the retailer will now price at \$7 and sell to both segments because it is now indifferent between pricing at \$10 and at \$7. The profit of the manufacturer is $2 * 10K * (\$4 - \$2) = \text{\$40K}$. The retailer's profit is $2 * 10K * (\$7 - \$4) = \$60K$.
- The manufacturer's optimal wholesale price is \$9 and its profit is **\\$70K**.

What can the manufacturer do to improve its profit? (I)

- Set the wholesale price at \$2 and charge the retailer a fee of \$90K
 - The retailer will set price at \$7 and make a total profit of \$10K.
 - The manufacturer will get **\$90K** in profit
 - Any limitations with this approach?

What can the manufacturer do to improve its profit? (II)

- Set the wholesale price at \$10 if the retailer order 10K units or less; set the wholesale price at \$3 for the incremental units ordered above 10K
 - The retailer will order 20K, set price at \$7 and make a total profit of \$10K
 - The manufacturer will make **\$90K** in profit.
 - Any limitations with this approach?