## ELEVENTH EDITION <br> MARKETING

## CHAPTER

## 13

## BUILDING THE PRICE FOUNDATION

## (101) NATURE AND IMPORTANCE OF PRICE WHAT IS A PRICE?: THE PRICE EQUATION

## > Price

## > Barter

> Price Equation


Final Price = List Price - (Incentives + Allowances) + Extra Fees
> Price and the Global Marketplace

## STEP 1: IDENTIFY PRICING OBJECTIVES AND CONSTRAINTS <br> IDENTIFYING PRICING OBJECTIVES

> Pricing Objectives

- Sales (\$)

- Survival
- Market Share (\$ or \#)
- Social Responsibility
- Unit Volume (\#)


## STEP 2: ESTIMATE DEMAND

 AND REVENUE
## FUNDAMENTALS OF ESTIMATING DEMAND

## > Movement Along vs. Shift of a Demand Curve

- Movement Along a Demand Curve
- Shift in the Demand Curve



## STEP 2: ESTIMATE DEMAND AND REVENUE

> Demand Curve
> Demand Factors

- Consumer Tastes
- Price and Availability of Similar Products
- Consumer Income



# FIGURE 13-5A Demand curve for Newsweek showing the effect on annual sales by a change in price caused by a movement along the demand curve 



Quantity demanded per year (millions of units)
A: Demand curve under inital conditions

# FIGURE 13-5B Demand curve for Newsweek showing the effect on annual sales by a change in price caused by a shift of the demand curve 



Quantity demanded per year (millions of units)
B: Shift the demand curve with more favorable conditions

## STEP 2: ESTIMATE DEMAND AND REVENUE

## FUNDAMENTALS OF ESTIMATING REVENUE

## > Total Revenue (TR)

> Average Revenue (AR)
> Marginal Revenue (MR)
> Demand Curves and Revenue


# FIGURE 13-7 How Newsweek's downwardsloping demand curve affects total, average, and marginal revenues 




| Point on <br> Demand <br> Curve | Price <br> $(P)$ | Quantity <br> Sold <br> $(Q)$ | Total <br> Revenue <br> $(P \times Q)$ | Average <br> Revenue <br> $(T R / Q=P)$ | Marginal <br> Revenue <br> $(\Delta T R / \Delta Q)$ |
| :---: | ---: | :---: | ---: | :---: | :---: |
| A | $\$ 3.00$ | 0 | $\$ 0$ | $\$ 3.00$ | $\$ 3.00$ |
| B | 2.50 | $1,500,000$ | $3,750,000$ | 2.50 | 2.00 |
| C | 2.00 | $3,000,000$ | $6,000,000$ | 2.00 | 1.00 |
| D | 1.50 | $4,500,000$ | $6,750,000$ | 1.50 | 0 |
| E | 1.00 | $6,000,000$ | $6,000,000$ | 1.00 | $-1.00^{\star}$ |
| F | .50 | $7,500,000$ | $3,750,000$ | .50 | $-2.00^{\star}$ |
| G | 0 | $9,000,000$ | 0 | 0 | $-3.00^{\star}$ |

*Not shown in Figure 13-6A. [Note that the marginal revenue (MR) curve in Figure 13-6A is the slope of the total revenue (TR) curve in Figure 13-6B.]

## STEP 2: ESTIMATE DEMAND AND REVENUE <br> FUNDAMENTALS OF ESTIMATING REVENUE

## > Price Elasticity of Demand

Price Elasticity of Demand $(E)=\begin{gathered}\text { Percentage Change in Quantity Demanded } \\ \text { Percentage Change in Price }\end{gathered}$

- Elastic Demand
- Inelastic Demand
- Unitary Demand


## STEP 2: ESTIMATE DEMAND AND REVENUE FUNDAMENTALS OF ESTIMATING REVENUE

> Decisions Involving Price Elasticity

- Product/Service Substitutes
- Products/Services Considered Necessities
- Items That Require Large Cash Outlays


## STEP 3: DETERMINE COST, VOLUME, AND PROFIT RELATIONSHIPS THE IMPORTANCE OF CONTROLLING COSTS

> Total Cost (TC)
> Fixed Cost (FC)
> Variable Cost (VC)
> Unit Variable Cost (UVC)
> Marginal Cost (MC)

> Marginal Analysis

## STEP 3: DETERMINE COST, VOLUME, (10) AND PROFIT RELATIONSHIPS BREAK-EVEN ANALYSIS

> Break-Even Analysis
> Break-Even Point (BEP)

$B E P_{\text {Quantity }}=$

## FIGURE 13-10 Profit is a maximum at the quantity at which marginal revenue and marginal cost are equal



# FIGURE 13-11 Calculating a break-even point for the picture frame store shows its profit starts at 400 framed pictures per year 

| Quantity <br> of Pictures <br> Sold <br> $(\mathbf{Q})$ | Price <br> Per <br> Picture <br> $(\mathbf{P})$ | Total <br> Revenue <br> $(T R)=$ <br> $(\mathbf{P} \times \mathbf{Q})$ | Unit <br> Variable <br> Cost <br> $($ UVC $)$ | Total <br> Variable <br> Cost $($ VC $)=$ <br> $($ UVC $\times \mathbf{Q})$ | Fixed <br> Cost <br> $($ FC $)$ | Total <br> Cost (TC) $=$ <br> $($ FC + VC) $)$ | Profit $=$ <br> $($ TR - TC) $)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | $\$ 120$ | $\$ 0$ | $\$ 40$ | $\$ 0$ | $\$ 32,000$ | $\$ 32,000$ | $-\$ 32,000$ |
| 200 | 120 | 24,000 | 40 | 8,000 | 32,000 | 40,000 | $-16,000$ |
| 400 | 120 | 48,000 | 40 | 16,000 | 32,000 | 48,000 | 0 |
| 600 | 120 | 72,000 | 40 | 24,000 | 32,000 | 56,000 | 16,000 |
| 800 | 120 | 96,000 | 40 | 32,000 | 32,000 | 64,000 | 32,000 |
| 1,000 | 120 | 120,000 | 40 | 40,000 | 32,000 | 72,000 | 48,000 |
| 1,200 | 120 | 144,000 | 40 | 48,000 | 32,000 | 80,000 | 64,000 |

FIGURE 13-12 Break-even analysis chart for a picture frame store shows the break-even point at 400 pictures


## VIDEO CASE 13

## WASHBURN GUITARS: USING BREAK-EVEN POINTS TO MAKE PRICING DECISIONS



## VIDEO CASE 13 WASHBURN GUITARS

1. What factors are most likely to affect the demand for the lines of Washburn guitars (a) bought by a first-time guitar buyer and (b) bought by a sophisticated musician who wants a signature model?

## VIDEO CASE 13 WASHBURN GUITARS

2. For Washburn, what are examples of (a) shifting the demand curve to the right to get a higher price for a guitar line (movement of the demand curve) and (b) pricing decisions involving moving along a demand curve?

## VIDEO CASE 13 WASHBURN GUITARS

3. In Washburn's factory, what is the break-even point for the new line of guitars if the retail price is (a) \$349, (b) \$389, and (c) \$309? Also, (d) if Washburn achieves the sales target of 2,000 units at the $\$ 349$ retail price, what will its profit be?

## VIDEO CASE 13 WASHBURN GUITARS

4. Assume that the merger with Parker leads to the cost reductions projected in the case. What will be the (a) new breakeven point at a $\$ 349$ retail price for this line of guitars and (b) new profit if it sells 2,000 units?

## VIDEO CASE 13 WASHBURN GUITARS

5. If for competitive reasons, Washburn eventually has to move all its production back to Asia, (a) which specific fixed and variable costs might be lowered and (b) what additional fixed and variable costs might it expect to incur?

## Price (P)

A price (P) is the money or other considerations (including other products and services) exchanged for the ownership or use of a product or service.

## Barter

## Barter is the practice of exchanging products and services for other products and services rather than for money.

## Value

Value is the ratio of perceived benefits to price; or Value $=$ (Perceived benefits divided by Price).

## Value-Pricing

Value-pricing is the practice of simultaneously increasing product and service benefits while maintaining or decreasing price.

## Profit Equation

The profit equation is:
Profit = Total revenue - Total cost; or
Profit $=($ Unit price $\times$ Quantity sold) (Fixed cost + Variable cost).

## Pricing Objectives

# Pricing objectives specify the role of price in an organization's marketing and strategic plans. 

## Pricing Constraints

## Pricing constraints are factors that limit the range of prices a firm may set.

## Demand Curve

A demand curve is a graph relating the quantity sold and price, which shows the maximum number of units that will be sold at a given price.

## Demand Factors

## Demand factors are those that

 determine consumers' willingness and ability to pay for products and services.
## Total Revenue (TR)

## Total revenue (TR) is the total money received from the sale of a product.

## Average Revenue (AR)

Average revenue (AR) is the average amount of money received for selling one unit of a product, or simply the price of that unit.

## Marginal Revenue (MR)

Marginal revenue (MR) is the change in total revenue that results from producing and marketing one additional unit of a product.

## Price Elasticity of Demand

The price elasticity of demand is the percentage change in quantity demanded relative to a percentage change in price.

## Total Cost (TC)

Total cost (TC) is the total expense incurred by a firm in producing and marketing a product. Total cost is the sum of fixed cost and variable cost.

## Fixed Cost (FC)

Fixed cost (FC) is the sum of the expenses of the firm that are stable and do not change with the quantity of a product that is produced and sold.

## Variable Cost (VC)

Variable cost (VC) is the sum of the expenses of the firm that vary directly with the quantity of a product that is produced and sold.

## Unit Variable Cost (UVC)

Unit variable cost (UVC) is variable cost expressed on a per unit basis for a product.

## Marginal Cost (MC)

Marginal cost (MC) is the change in total cost that results from producing and marketing one additional unit of a product.

## Marginal Analysis

# Marginal analysis a continuing, concise trade-off of incremental costs against incremental revenues. 

## Break-Even Analysis

Break-even analysis is a technique that analyzes the relationship between total revenue and total cost to determine profitability at various levels of output.

## Break-Even Point (BEP)

A break-even point (BEP) is the quantity at which total revenue and total cost are equal.

## Break-Even Chart

A break-even chart is a graphic presentation of the break-even analysis that shows when total revenue and total cost intersect to identify profit or loss for a given quantity sold.

