


بناام خدا



## مديریت استراتژیک فناوری اطلاعات فصل ششم: بررسی و انتخاب استراتژی

بصیری

دانشکده برق و کامپیوتر  
دانشگاه صنعتی اصفهان

## مراجع

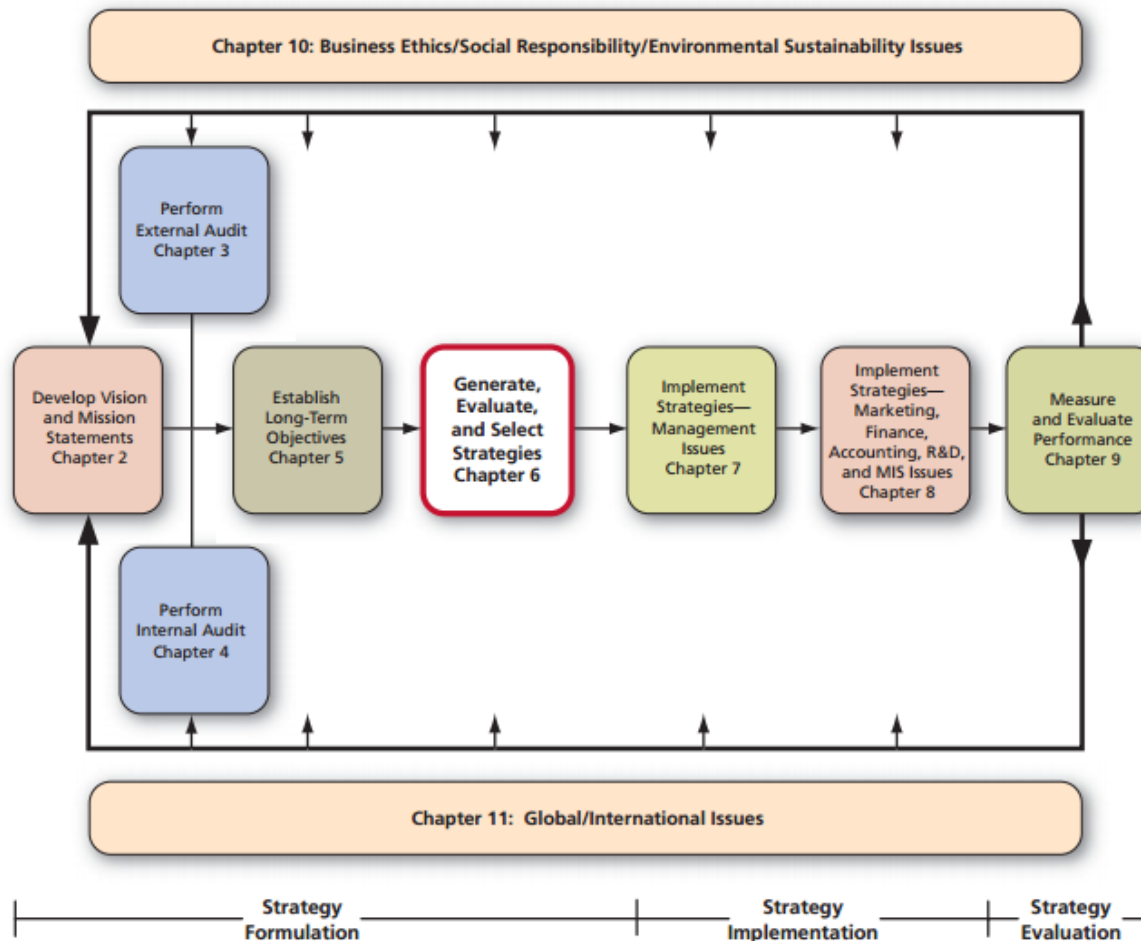
- Fred R. David, Strategic Management, Pearson College Division; 2003.

■ مدیریت استراتژیک، ترجمه دکتر علی پارساییان و دکتر سید محمد اعرابی

# Strategy Analysis and Choice

- This chapter focuses on generating and valuating alternative strategies, as well as selecting strategies to pursue. Strategy analysis and choice seek to determine alternative courses of action that could best enable the firm to achieve its mission and objectives.
- The firm's present strategies, objectives, and mission, coupled with the external and internal audit information, provide a basis for generating and evaluating feasible alternative strategies.

A Comprehensive Strategic-Management Model





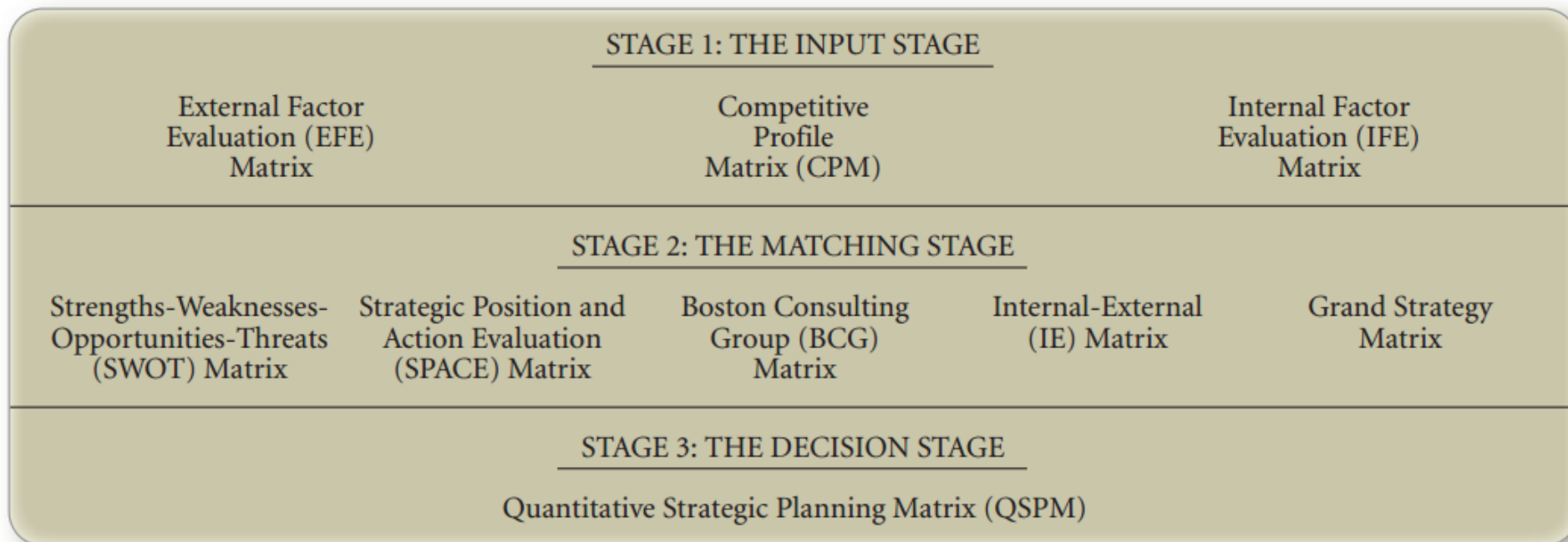
# The Process of Generating and Selecting Strategies

- Identifying and evaluating alternative strategies should involve many of the managers and employees who earlier assembled the organizational vision and mission statements, performed the external audit, and conducted the internal audit. Representatives from each department and division of the firm should be included in this process
- All participants in the strategy analysis and choice activity should have the firm's external and internal audit information by their sides. This information, coupled with the firm's mission statement, will help participants crystallize in their own minds particular strategies that they believe could benefit the firm most.

# A Comprehensive Strategy-Formulation Framework

- Important strategy-formulation techniques can be integrated into a three-stage decision-making framework. The tools presented in this framework are applicable to all sizes and types of organizations and can help strategists identify, evaluate, and select strategies.

## The Strategy-Formulation Analytical Framework



# Strategy-Formulation Framework

- Stage 1 of the formulation framework consists of the EFE Matrix, the IFE Matrix, and the Competitive Profile Matrix (CPM). Called the *Input Stage*, Stage 1 summarizes the basic input information needed to formulate strategies.
- Stage 2, called the *Matching Stage*, focuses upon generating feasible alternative strategies by aligning key external and internal factors. Stage 2 techniques include the SWOT Matrix, the SPACE Matrix, the BCG Matrix, the IE Matrix, and the Grand Strategy Matrix.
- Stage 3, called the *Decision Stage*, involves a single technique, the Quantitative Strategic Planning Matrix (QSPM). A QSPM uses input information from Stage 1 to objectively evaluate feasible alternative strategies identified in Stage 2. A QSPM reveals the relative attractiveness of alternative strategies and thus provides objective basis for selecting specific strategies.
- All techniques included in the *strategy-formulation framework* require the integration of intuition and analysis.

# The Matching Stage

- Strategy is sometimes defined as the match an organization makes between its internal resources and skills and the opportunities and risks created by its external factors.
- These tools rely upon information derived from the input stage to match external opportunities and threats with internal strengths and weaknesses. *Matching* external and internal critical success factors is the key to effectively generating feasible alternative strategies.

## Matching Key Factors to Formulate Alternative Strategies

Key Internal Factor		Key External Factor		Resultant Strategy
Excess working capacity (strength)	+	20% annual growth in the cell phone industry (opportunity)	=	Acquire Cellfone, Inc.
Insufficient capacity (weakness)	+	Exit of two major foreign competitors from the industry (opportunity)	=	Pursue horizontal integration by buying competitor's facilities
Strong R&D (strength)	+	Decreasing numbers of young adults (threat)	=	Develop new products for older adults
Poor employee morale (weakness)	+	Strong union activity (threat)	=	Develop a new employee benefits package

# SWOT Matrix



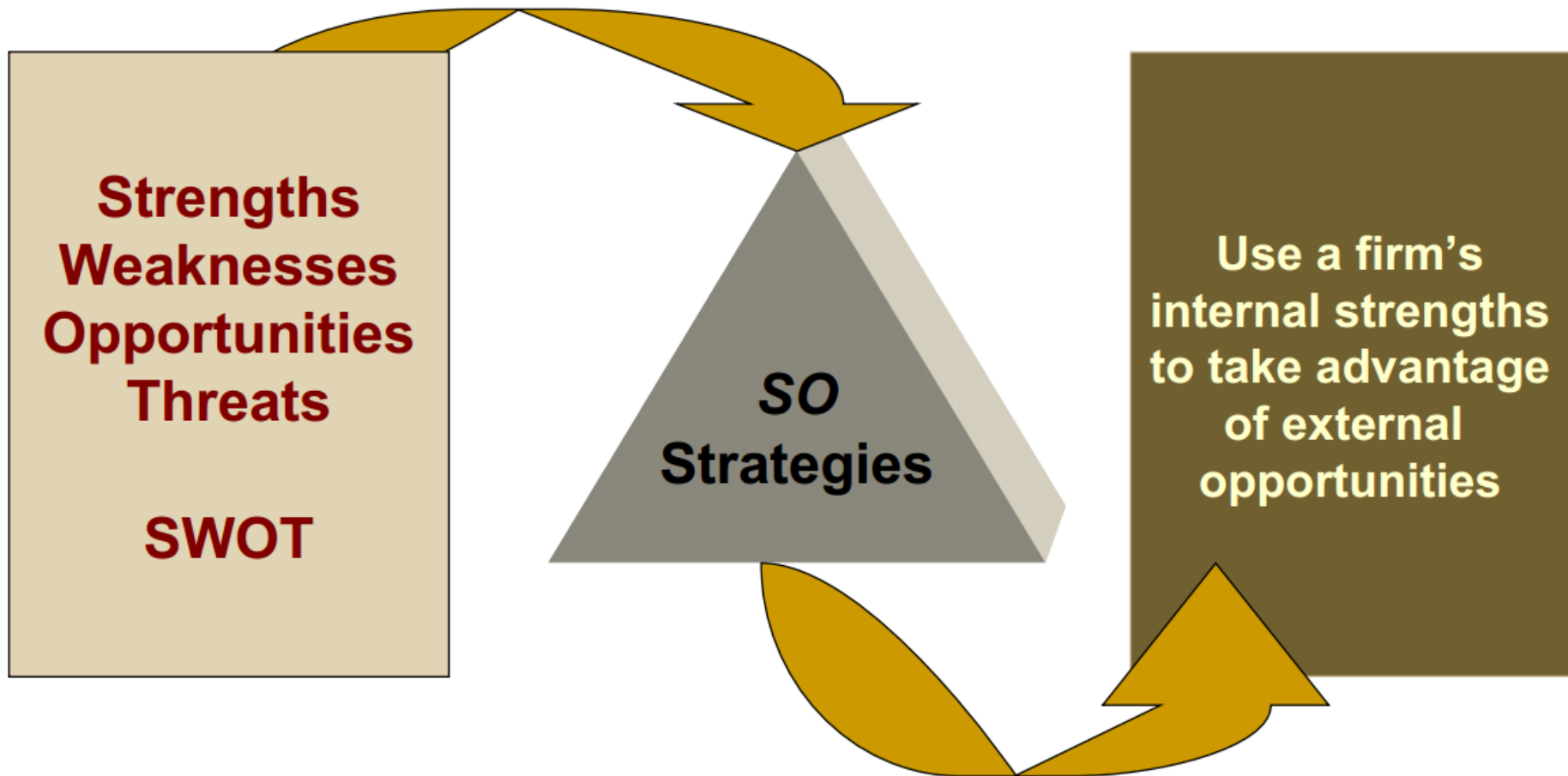




# SWOT Matrix: Four Types of Strategies

- Strengths-Opportunities (SO)
- Weaknesses-Opportunities (WO)
- Strengths-Threats (ST)
- Weaknesses-Threats (WT)

# SO Strategies

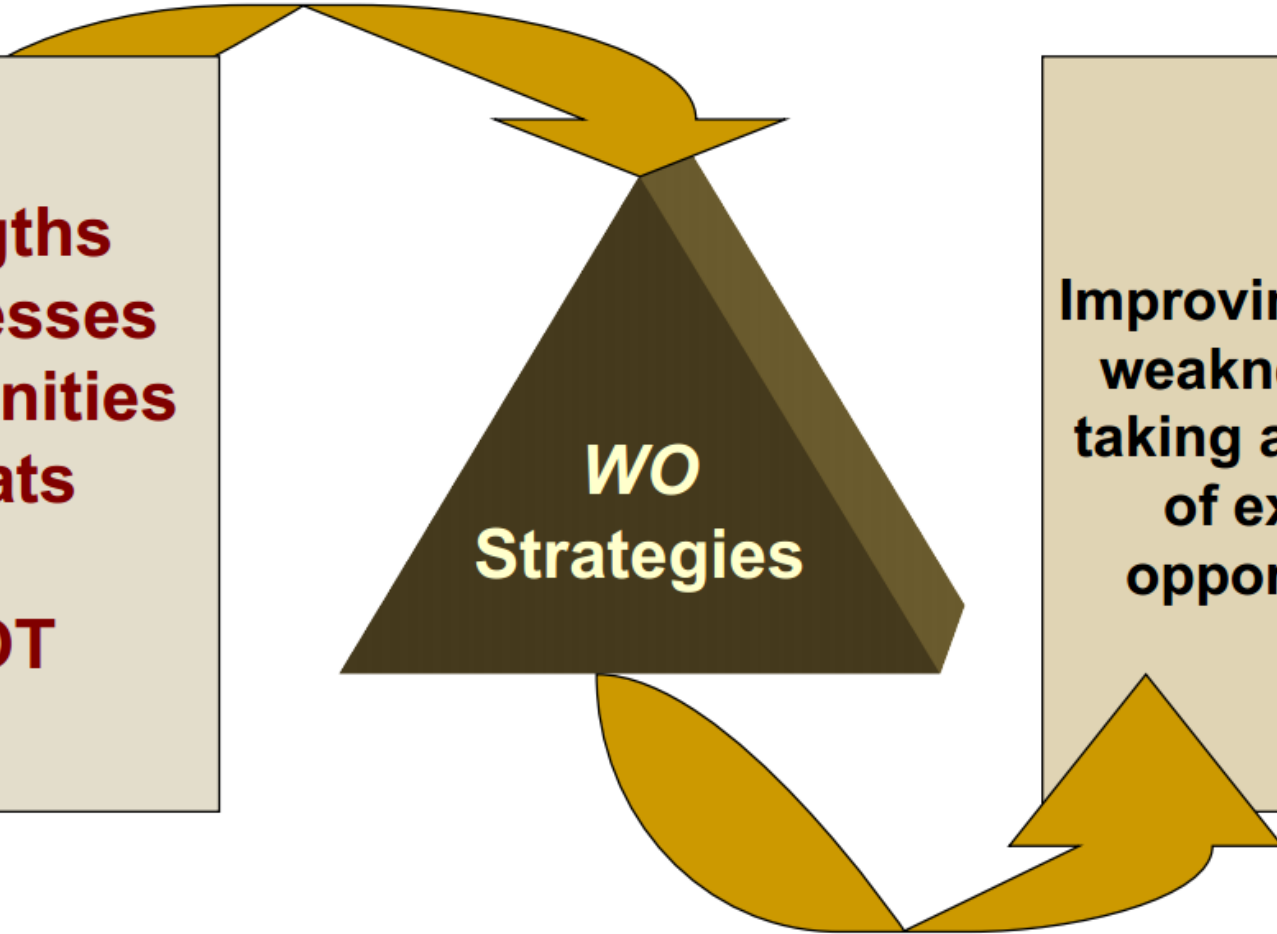


# WO Strategies

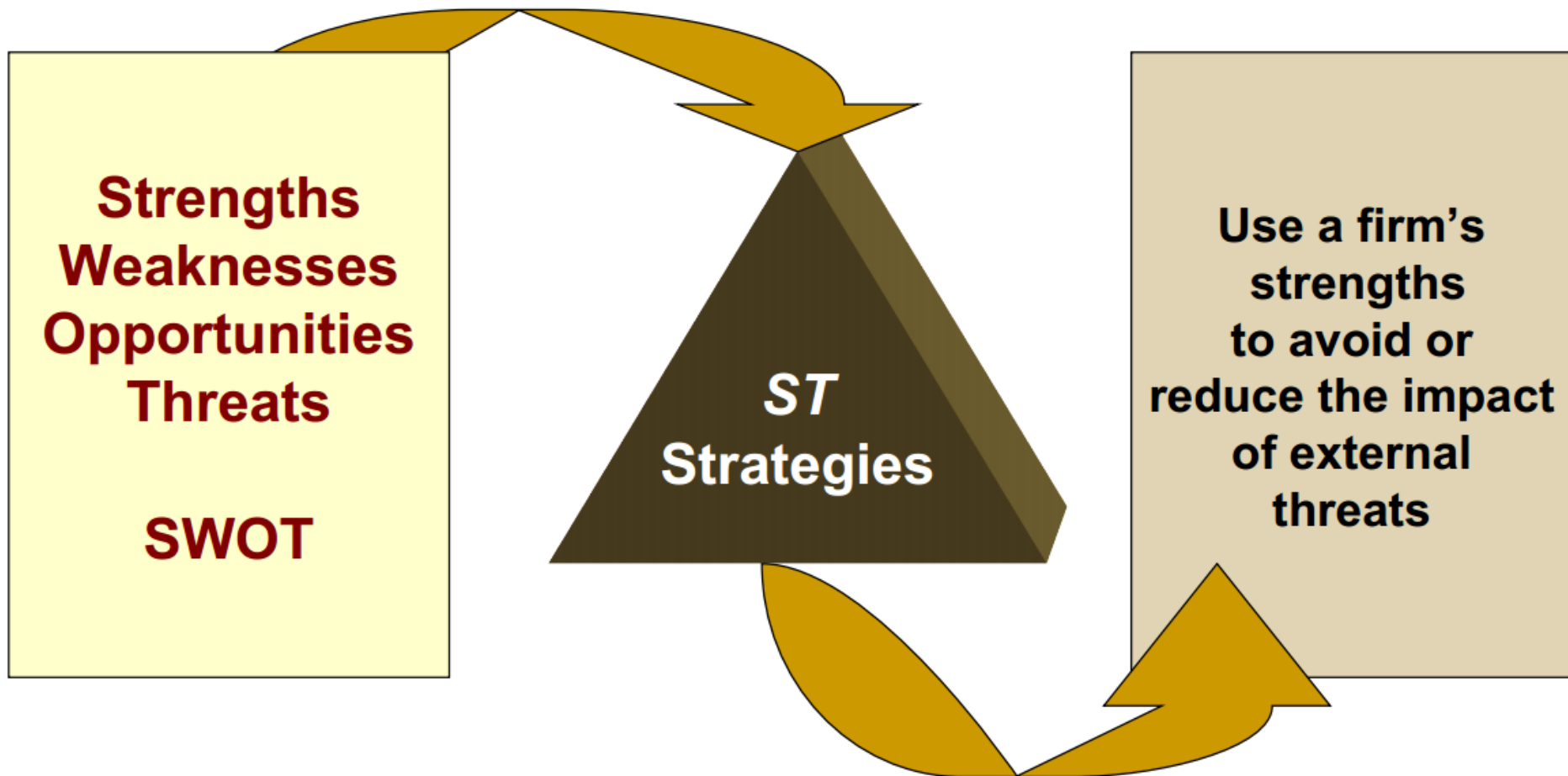
**Strengths**  
**Weaknesses**  
**Opportunities**  
**Threats**  
  
**SWOT**

**WO**  
**Strategies**

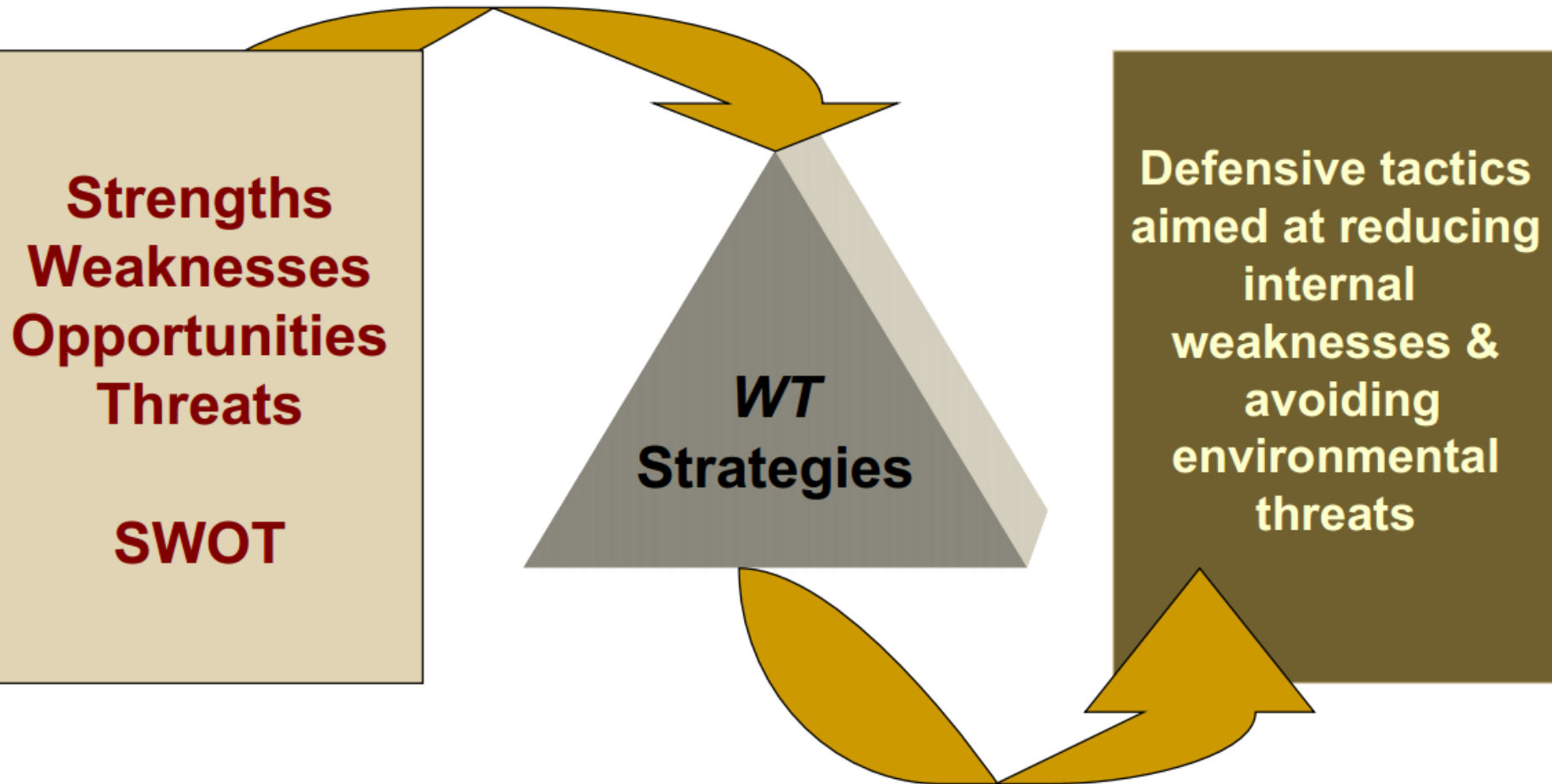
**Improving internal  
weaknesses by  
taking advantage  
of external  
opportunities**



# ST Strategies



# WT Strategies



# Developing The SWOT Matrix

<b><i>Leave Blank</i></b>	<b>Strengths – S</b> <i>List Strengths</i>	<b>Weaknesses – W</b> <i>List Weaknesses</i>
<b>Opportunities – O</b> <i>List Opportunities</i>	<b>SO Strategies</b> <i>Use strengths to take advantage of opportunities</i>	<b>WO Strategies</b> <i>Overcoming weaknesses by taking advantage of opportunities</i>
<b>Threats – T</b> <i>List Threats</i>	<b>ST Strategies</b> <i>Use strengths to avoid threats</i>	<b>WT Strategies</b> <i>Minimize weaknesses and avoid threats</i>

## A SWOT Matrix for a Retail Computer Store

	Strengths	Weaknesses
	<ol style="list-style-type: none"> <li>1. Inventory turnover up 5.8 to 6.7</li> <li>2. Average customer purchase up \$97 to \$128</li> <li>3. Employee morale is excellent</li> <li>4. In-store promotions = 20% increase in sales</li> <li>5. Newspaper advertising expenditures down 10%</li> <li>6. Revenues from repair/service in-store up 16%</li> <li>7. In-store technical support persons have MIS degrees</li> <li>8. Store's debt-to-total assets ratio down 34%</li> </ol>	<ol style="list-style-type: none"> <li>1. Software revenues in store down 12%</li> <li>2. Location of store hurt by new Hwy 34</li> <li>3. Carpet and paint in store in disrepair</li> <li>4. Bathroom in store needs refurbishing</li> <li>5. Total store revenues down 8%</li> <li>6. Store has no Web site</li> <li>7. Supplier on-time-delivery up to 2.4 days</li> <li>8. Customer checkout process too slow</li> <li>9. Revenues per employee up 19%</li> </ol>
Opportunities	SO Strategies	WO Strategies

## Opportunities

## SO Strategies

## WO Strategies

1. Population of city growing 10%

1. Add 4 new in-store promotions monthly (S4, O3)

1. Purchase land to build new store (W2, O2)

2. Rival computer store opening 1 mile away

2. Add 2 new repair/service persons (S6, O5)

2. Install new carpet/paint/bath (W3, W4, O1)

3. Vehicle traffic passing store up 12%

3. Send flyer to all seniors over age 55 (S5, O5)

3. Up Web site services by 50% (W6, O7, O8)

4. Vendors average six new products/yr

4. Launch mailout to all Realtors in city (W5, O7)

5. Senior citizen use of computers up 8%

6. Small business growth in area up 10%

7. Desire for Web sites up 18% by Realtors

8. Desire for Web sites up 12% by small firms

## Threats

## ST Strategies

## WT Strategies

1. Best Buy opening new store in 1yr nearby

1. Hire two more repair persons and market these new services (S6, S7, T1)

1. Hire 2 new cashiers (W8, T1, T4)

2. Local university offers computer repair

2. Purchase land to build new store (S8, T3)

2. Install new carpet/paint/bath (W3, W4, T1)

3. New bypass Hwy 34 in 1 yr will divert traffic

3. Raise out-of-store service calls from \$60 to \$80 (S6, T5)

4. New mall being built nearby

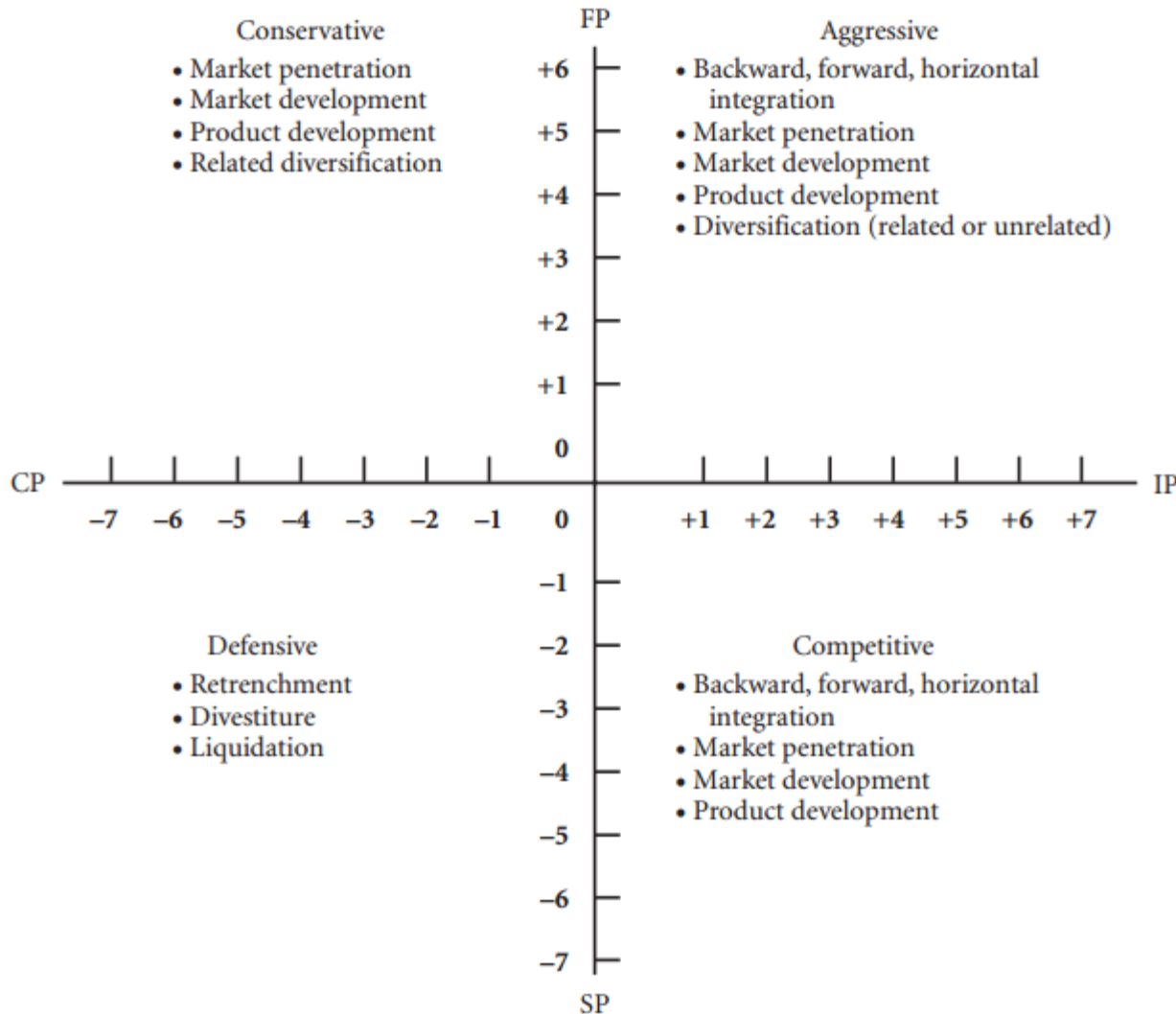
5. Gas prices up 14%

6. Vendors raising prices 8%



# The Strategic Position and Action Evaluation (SPACE) Matrix

The SPACE Matrix



# SPACE Matrix

- Depending on the type of organization, numerous variables could make up each of the dimensions represented on the axes of the SPACE Matrix. Factors that were included earlier in the firm's EFE and IFE Matrices should be considered in developing a SPACE Matrix. Other variables commonly included are given in Table 6-2.

**TABLE 6-2 Example Factors That Make Up the SPACE Matrix Axes**

Internal Strategic Position	External Strategic Position
<i>Financial Position (FP)</i>	<i>Stability Position (SP)</i>
Return on investment	Technological changes
Leverage	Rate of inflation
Liquidity	Demand variability
Working capital	Price range of competing products
Cash flow	Barriers to entry into market
Inventory turnover	Competitive pressure
Earnings per share	Ease of exit from market
Price earnings ratio	Price elasticity of demand
	Risk involved in business
<i>Competitive Position (CP)</i>	<i>Industry Position (IP)</i>
Market share	Growth potential
Product quality	Profit potential
Product life cycle	Financial stability
Customer loyalty	Extent leveraged
Capacity utilization	Resource utilization
Technological know-how	Ease of entry into market
Control over suppliers and distributors	Productivity, capacity utilization

# SPACE Matrix

1. Select a set of variables to define financial position (FP), competitive position (CP), stability position (SP), and industry position (IP).
2. Assign a numerical value ranging from +1 (worst) to +7 (best) to each of the variables that make up the FP and IP dimensions. Assign a numerical value ranging from -1 (best) to -7 (worst) to each of the variables that make up the SP and CP dimensions. On the FP and CP axes, make comparison to competitors. On the IP and SP axes, make comparison to other industries.
3. Compute an average score for FP, CP, IP, and SP by summing the values given to the variables of each dimension and then by dividing by the number of variables included in the respective dimension.
4. Plot the average scores for FP, IP, SP, and CP on the appropriate axis in the SPACE Matrix.
5. Add the two scores on the x-axis and plot the resultant point on X. Add the two scores on the y-axis and plot the resultant point on Y. Plot the intersection of the new xy point.
6. Draw a *directional vector* from the origin of the SPACE Matrix through the new intersection point. This vector reveals the type of strategies recommended for the organization: aggressive, competitive, defensive, or conservative.



# The Boston Consulting Group (BCG) Matrix

- Autonomous divisions (or profit centers) of an organization make up what is called a *business portfolio*.
- When a firm's divisions compete in different industries, a separate strategy often must be developed for each business.
- The *Boston Consulting Group (BCG) Matrix* is designed specifically to enhance a multidivisional firm's efforts to formulate strategies.



# The Boston Consulting Group (BCG) Matrix

- The BCG Matrix graphically portrays differences among divisions in terms of **relative market share position** and **industry growth rate**.
- The BCG Matrix allows a multidivisional organization to manage its portfolio of businesses by examining the relative market share position and the industry growth rate of each division relative to all other divisions in the organization.

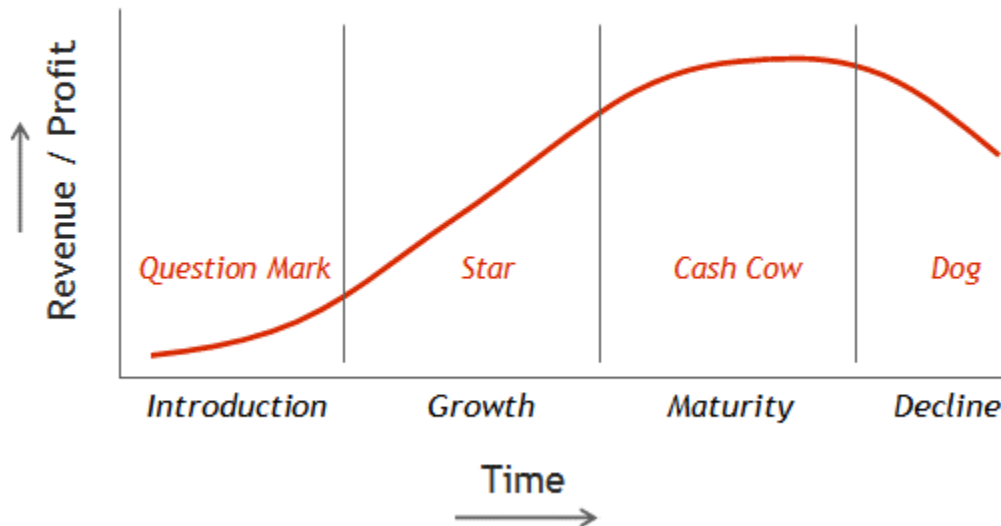
# RELATIVE MARKET SHARE POSITION

- The ratio of a division's own market share (or revenues) in a particular industry to the market share (or revenues) held by the largest rival firm in that industry.
- Relative market share position is given on the x-axis of the BCG Matrix. The midpoint on the x-axis usually is set at .50, corresponding to a division that has half the market share of the leading firm in the industry.

# INDUSTRY GROWTH RATE

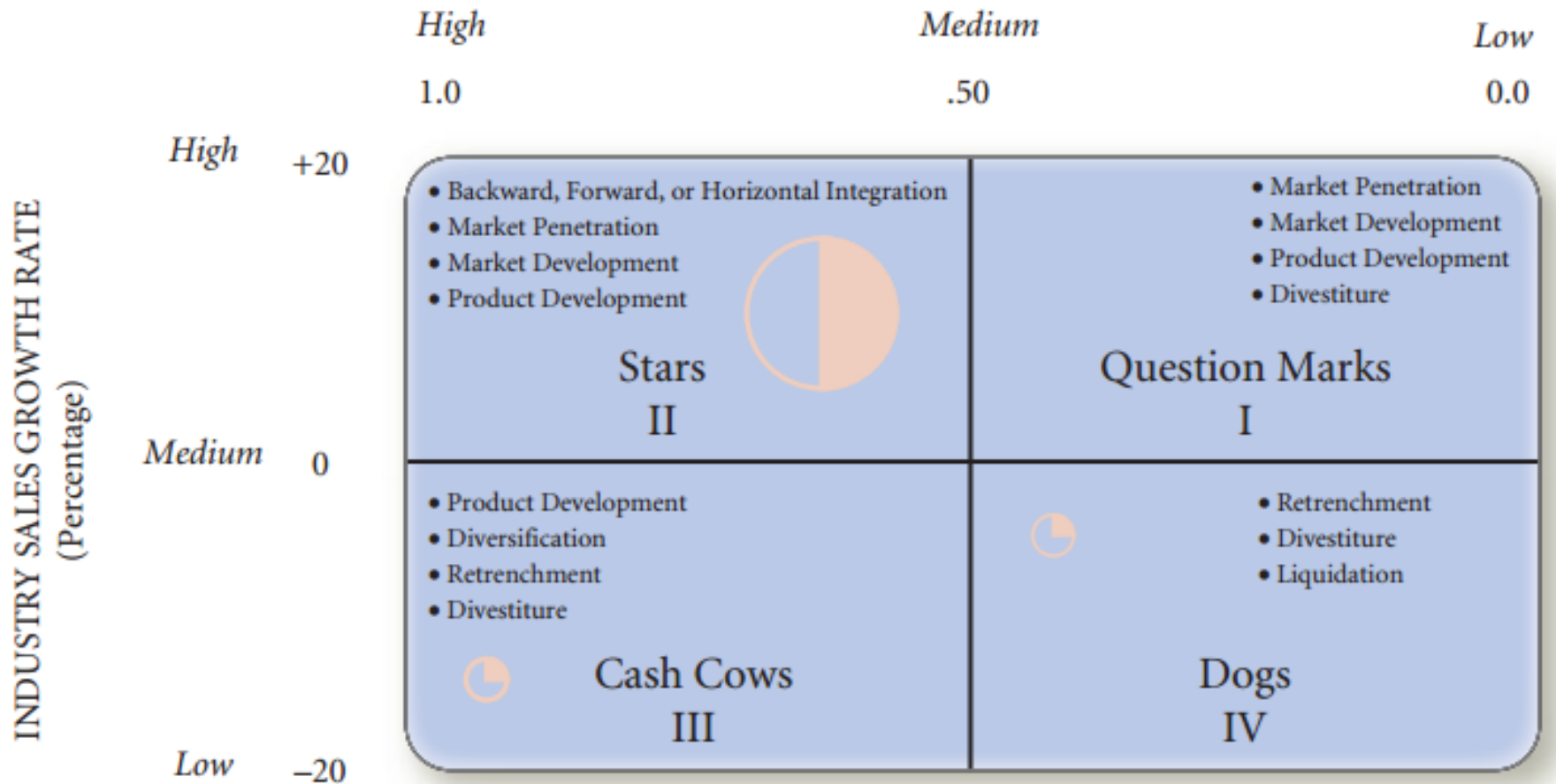
- The y-axis represents the industry growth rate in sales, measured in percentage terms.
- The growth rate percentages on the y-axis could range from -20 to +20 percent, with 0.0 being the midpoint.
- The average annual increase in revenues for several leading firms in the industry would be a good estimate of the value.

BCG positions throughout the product life cycle:



# BCG Matrix

RELATIVE MARKET SHARE POSITION



- The size of the circle corresponds to the proportion of corporate revenue generated by that business unit
- The pie slice indicates the proportion of corporate profits generated by that division.





## ***Question Marks***

- Divisions in Quadrant I have a low relative market share position, yet they compete in a high-growth industry.
- Generally these firms' cash needs are high and their cash generation is low.
- These businesses are called *Question Marks* because the organization must decide whether to strengthen them by pursuing an intensive strategy (market penetration, market development, or product development) or to sell them.



# ***Stars***

- (*Stars*) represent the organization's best long-run opportunities for growth and profitability.
- Divisions with a high relative market share and a high industry growth rate should receive substantial investment to maintain or strengthen their dominant positions.
- Forward, backward, and horizontal integration; market penetration; market development; and product development are appropriate strategies for these divisions to consider



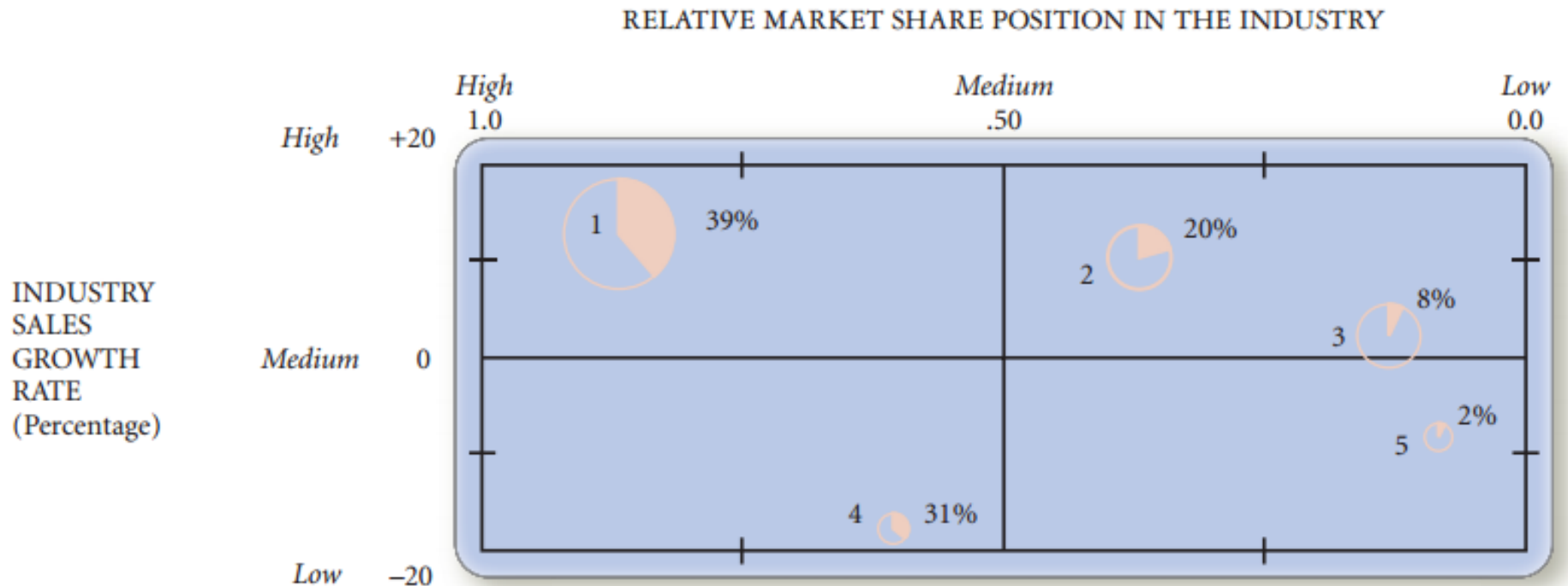
# ***Cash Cows***

- Called *Cash Cows* because they generate cash in excess of their needs, they are often milked.
- Many of today's Cash Cows were yesterday's Stars.
- Cash Cow divisions should be managed to maintain their strong position for as long as possible.
- Product development or diversification may be attractive strategies for strong Cash Cows. However, as a Cash Cow division becomes weak, retrenchment or divestiture can become more appropriate.

# ***Dogs***

- Quadrant IV divisions of the organization have a low relative market share position and compete in a slow- or no-market-growth industry; they are *Dogs* in the firm's portfolio.
- Because of their weak internal and external position, these businesses are often liquidated, divested, or trimmed down through retrenchment.
- When a division first becomes a Dog, retrenchment can be the best strategy to pursue because many Dogs have bounced back, after strenuous asset and cost reduction, to become viable, profitable divisions.

# An Example BCG Matrix



Division	Revenues	Percent Revenues	Profits	Percent Profits	Relative Market Share	Industry Growth Rate (%)
1	\$60,000	37	\$10,000	39	.80	+15
2	40,000	24	5,000	20	.40	+10
3	40,000	24	2,000	8	.10	+1
4	20,000	12	8,000	31	.60	-20
5	5,000	3	500	2	.05	-10
<b>Total</b>	<b>\$165,000</b>	<b>100</b>	<b>\$25,500</b>	<b>100</b>	—	—



# The Decision Stage

- Analysis and intuition provide a basis for making strategy-formulation decisions.
- There is only one analytical technique in the literature designed to determine the relative attractiveness of feasible alternative actions. This technique is the *Quantitative Strategic Planning Matrix (QSPM)*
- This technique objectively indicates which alternative strategies are best.
- The QSPM uses input from Stage 1 analyses and matching results from Stage 2 analyses to decide objectively among alternative strategies.

# The Quantitative Strategic Planning Matrix (QSPM)

**TABLE 6-6** The Quantitative Strategic Planning Matrix—QSPM

Key Factors	Weight	Strategic Alternatives		
		Strategy 1	Strategy 2	Strategy 3
Key External Factors				
Economy				
Political/Legal/Governmental				
Social/Cultural/Demographic/Environmental				
Technological				
Competitive				
Key Internal Factors				
Management				
Marketing				
Finance/Accounting				
Production/Operations				
Research and Development				
Management Information Systems				


# The Quantitative Strategic Planning Matrix (QSPM)

- **Step 1** *Make a list of the firm's key external opportunities/threats and internal strengths/weaknesses in the left column of the QSPM.* This information should be taken directly from the EFE Matrix and IFE Matrix. A minimum of 10 external key success factors and 10 internal key success factors should be included in the QSPM.
- **Step 2** *Assign weights to each key external and internal factor.* These weights are identical to those in the EFE Matrix and the IFE Matrix.
- **Step 3** Examine the Stage 2 (matching) matrices, and identify alternative strategies that the organization should consider implementing.
- **Step 4** *Determine the Attractiveness Scores (AS)* defined as numerical values that indicate the relative attractiveness of each strategy in a given set of alternatives. *Attractiveness Scores (AS)* are determined by examining each key external or internal factor, one at a time, and asking the question "Does this factor affect the choice of strategies being made?" 1 = not attractive, 2 = somewhat attractive, 3 = reasonably attractive, and 4 = highly attractive
- **Step 5** *Compute the Total Attractiveness Scores.* *Total Attractiveness Scores (TAS)* are defined as the product of multiplying the weights (Step 2) by the Attractiveness Scores (Step 4) in each row.
- **Step 6** *Compute the Sum Total Attractiveness Score.* Add Total Attractiveness Scores in each strategy column of the QSPM.



**TABLE 6-7 A QSPM for a Retail Computer Store**

		STRATEGIC ALTERNATIVES			
		1		2	
		Buy New Land and Build New Larger Store		Fully Renovate Existing Store	
Key Factors	Weight	AS	TAS	AS	TAS
<i>Opportunities</i>					
1. Population of city growing 10%	0.10	4	0.40	2	0.20
2. Rival computer store opening 1 mile away	0.10	2	0.20	4	0.40
3. Vehicle traffic passing store up 12%	0.08	1	0.08	4	0.32
4. Vendors average six new products/year	0.05	—		—	
5. Senior citizen use of computers up 8%	0.05	—		—	
6. Small business growth in area up 10%	0.10	—		—	
7. Desire for Web sites up 18% by Realtors	0.06	—		—	
8. Desire for Web sites up 12% by small firms	0.06	—		—	
<i>Threats</i>					
1. Best Buy opening new store nearby in 1 year	0.15	4	0.60	3	0.45
2. Local university offers computer repair	0.08	—		—	
3. New bypass for Hwy 34 in 1 year will divert traffic	0.12	4	0.48	1	0.12
4. New mall being built nearby	0.08	2	0.16	4	0.32
5. Gas prices up 14%	0.04	—		—	
6. Vendors raising prices 8%	0.03	—		—	
	1.00				



### *Strengths*

1. Inventory turnover increased from 5.8 to 6.7	0.05	—		—	
2. Average customer purchase increased from \$97 to \$128	0.07	2	0.14	4	0.28
3. Employee morale is excellent	0.10	—		—	
4. In-store promotions resulted in 20% increase in sales	0.05	—		—	
5. Newspaper advertising expenditures increased 10%	0.02	—		—	
6. Revenues from repair/service segment of store up 16%	0.15	4	0.60	3	0.45
7. In-store technical support personnel have MIS college degrees	0.05	—		—	
8. Store's debt-to-total assets ratio declined to 34%	0.03	4	0.12	2	0.06
9. Revenues per employee up 19%	0.02	—		—	

### *Weaknesses*

1. Revenues from software segment of store down 12%	0.10	—		—	
2. Location of store negatively impacted by new Hwy 34	0.15	4	0.60	1	0.15
3. Carpet and paint in store somewhat in disrepair	0.02	1	0.02	4	0.08
4. Bathroom in store needs refurbishing	0.02	1	0.02	4	0.08
5. Revenues from businesses down 8%	0.04	3	0.12	4	0.16
6. Store has no Web site	0.05	—		—	
7. Supplier on-time delivery increased to 2.4 days	0.03	—		—	
8. Often customers have to wait to check out	<u>0.05</u>	2	<u>0.10</u>	4	<u>0.20</u>
Total	1.00		4.36		3.27