# *Managerial Accounting for Managers 4th edition Noreen Solutions Manual*

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# Chapter 1
# Managerial Accounting: An Overview

## Solutions to Questions

**1-1** Financial accounting is concerned with reporting financial information to external parties, such as stockholders, creditors, and regulators. Managerial accounting is concerned with providing information to managers for use within the organization. Financial accounting emphasizes the financial consequences of past transactions, objectivity and verifiability, precision, and companywide performance, whereas managerial accounting emphasizes decisions affecting the future, relevance, timeliness, and segment performance. Financial accounting is mandatory for external reports and it needs to comply with rules, such as generally accepted accounting principles (GAAP) and international financial reporting standards (IFRS), whereas managerial accounting is not mandatory and it does not need to comply with externally imposed rules.

**1-2** Five examples of planning activities include (1) estimating the advertising revenues for a future period, (2) estimating the total expenses for a future period, including the salaries of all actors, news reporters, and sportscasters, (3) planning how many new television shows to introduce to the market, (4) planning each television show's designated broadcast time slot, and (5) planning the network's advertising activities and expenditures.

Five examples of controlling activities include (1) comparing the actual number of viewers for each show to its viewership projections, (2) comparing the actual costs of producing a made-for-television movie to its budget, (3) comparing the revenues earned from broadcasting a sporting event to the costs incurred to broadcast that event, (4) comparing the actual costs of running a production studio to the budget, and (5) comparing the actual cost of providing global, on-location news coverage to the budget.

**1-3** The quantitative analysis would focus on determining the potential cost savings from buying the part rather than making it. The qualitative analysis would focus on broader issues such as strategy, risks, and corporate social responsibility. For example, if the part is critical to the organization's strategy, it may continue making the part regardless of any potential cost savings from outsourcing. If the overseas supplier might create quality control problems that could threaten the end consumers' welfare, then the risks of outsourcing may swamp any cost savings. Finally, from a social responsibility standpoint, a company may decide against outsourcing if it would result in layoffs at its domestic manufacturing facility.

**1-4** Companies prepare budgets to translate plans into formal quantitative terms. Budgets are used for various purposes, such as forcing managers to plan ahead, allocating resources across departments, coordinating activities across departments, establishing goals that motivate people, and evaluating and rewarding employees. These various purposes often conflict with one another, which makes budgeting one of management's most challenging activities.

**1-5** Managerial accounting is relevant to all business students because all managers engage in planning, controlling, and decision making activities. If managers wish to influence co-workers across the organization, they must be able to speak in financial terms to justify their proposed courses of action.

**1-6** The Institute of Management Accountants estimates that 80% of accountants work in non-public accounting environments. Accountants that work in corporate, non-profit, and governmental organizations are expected to

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use their planning, controlling, and decision-making skills to help improve performance.

**1-7** Deere & Company is an example of a company that competes in terms of product leadership. The company's slogan "nothing runs like a Deere" emphasizes its product leadership customer value proposition.

Amazon.com competes in terms of operational excellence. The company focuses on delivering products faster, more conveniently, and at a lower price than competitors.

Charles Schwab competes in terms of customer intimacy. It focuses on building personal relationships with clients so that it can tailor investment strategies to individual needs.

**1-8** Planning, controlling, and decision making must be performed within the context of a company's strategy. For example, if a company that competes as a product leader plans to grow too quickly, it may diminish quality and threaten the company's customer value proposition. A company that competes in terms of operational excellence would select control measures that focus on time-based performance, convenience, and cost. A company that competes in terms of customer intimacy may decide against outsourcing employee training to cut costs because it might diminish the quality of customer service.

**1-9** This answer is based on Nike, which has suppliers in over 40 countries. One risk that Nike faces is that its suppliers will fail to manage their employees in a socially responsible manner. Nike conducts Management Audit Verifications at its overseas plants to minimize this risk.

Nike faces the risk that unsatisfactory environmental performance will diminish its brand image. The company is investing substantial resources to develop products that minimize adverse impacts on the environment.

Nike faces the risk that customers will not like its new products. The company uses focus group research to proactively assess the customers' reaction to its new products.

**1-10** Airlines face the risk that large spikes in fuel prices will lower their profitability. Therefore, they may reduce this risk by spending money on hedging contracts that enable them to lock-in future fuel prices that will not change even if the market price increases.

Steel manufacturers face major risks related to employee safety, so they create and monitor control measures related to occupational safety compliance and performance.

Restaurants face the risk that an economic downturn will reduce customer traffic and lower sales. They reduce this risk by choosing to create menus during economic downturns that offer more low-priced entrees.

**1-11** Barnes & Noble could segment its companywide performance by individual store, by sales channel (i.e., bricks-and-mortar versus on-line), and by product line (e.g. non-fiction books, fiction books, music CDs, toys, etc.).

Procter & Gamble could segment its performance by product category (e.g., beauty and grooming, household care, and health and well-being), product line (e.g., Crest, Tide, and Bounty), and stock keeping units (e.g., Crest Cavity Protection toothpaste, Crest Extra Whitening toothpaste, and Crest Sensitivity toothpaste).

**1-12** Timberland publishes quarterly corporate social responsibility (CSR) metrics (see www.earthkeeper.com/CSR/csrdownloads. Three of those metrics include metric tons of carbon emissions, the percentage of total cotton sourced that is organic, and renewable energy use as a percent of total energy usage.

Timberland's corporate slogan of "doing well by doing good" suggests that the company publishes CSR reports because it believes that its financial success (i.e., doing well) is positively influenced by its social and environmental performance (i.e., doing good).

**1-13** Companies that use lean production only make units in response to customer orders. They produce units just in time to satisfy customer demand, which results in minimal inventories.

**1-14** Organizations are managed by people that have their own personal interests, insecurities, beliefs, and data-supported conclusions that ensure unanimous support for a given course of action is the exception rather than the rule. Therefore, managers must possess strong leadership skills if they wish to channel their co-workers' efforts towards achieving organizational goals.

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**1-15** Ethical behavior is the lubricant that keeps the economy running. Without that lubricant, the economy would operate much less efficiently—less would be available to consumers, quality would be lower, and prices would be higher.

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**Exercise 1-1** (30 minutes)

1. Having the boss unilaterally impose a sales budget on the sales manager is a bad idea for three reasons. First, the boss may not have access to information possessed by the sales manager that would result in a more accurate forecast. Second, the sales manager is unlikely to be committed to achieving a budget that she did not help create. Third, if the sales manager fails to achieve actual results that meet or exceed the budget, it would be easy for the sales manager to justify this outcome on the grounds that she had no input in creating the budget.

2. The company would probably not be comfortable with having the sales manager create the budget with no input from her boss. First, the boss is likely to possess a broad understanding of strategic issues that should be incorporated into the budgeting process. Second, the sales manager may be inclined to purposely underestimate future sales to increase her chances of producing actual results that exceed the budget. If she can produce actual results that exceed the budget it is likely to increase her pay raise and bonus as well as her chances for promotion.

3. If the company used the sales budget for the sole purpose of planning to deploy resources in a manner that best serves customers, then it is possible that the boss and the sales manager would both be focused on producing the most accurate forecast possible. They would strive for accuracy because if they overestimate sales it is likely to result in bloated inventories and if they underestimate sales it is likely to result in lost sales.

4. If the company used the sales budget for the sole purpose of motivating employees to strive for excellent results, then the boss may be inclined to challenge the sales manager by establishing a budget that intentionally exceeds expected sales. If the sales budget has absolutely no impact on the sales manager's pay raises, promotions or bonuses, then she may be inclined to embrace the challenge of "aiming high" when establishing the sales forecast.

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**Exercise 1-1** (30 minutes)

5. If the company used the sales budget for the sole purpose of determining pay raises, promotions, and bonuses, then the sales manager will be inclined to understate the sales budget to maximize her pay raise, bonus, and chance of promotion. The boss would expect the sales manager to understate the sale budget, so he would seek to increase the budget above the sales manager's proposed forecast.

6. When a budget is used to deploy resources, to motivate employees through the use of stretch goals, and to evaluate and reward employees, it creates inevitable conflicts. As a resource deployment tool, the budget should be as accurate as possible. As a motivational tool, the budget should intentionally seek to stretch employees to perform to their full potential. When budgets are used to evaluate and reward employees, the employees will have a strong inclination to establish easily attainable goals to maximize their chances for large pay raises and bonuses as well as their chance for promotion.

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**Exercise 1-2** (10 minutes)

The student would feel unfairly criticized for unloading 150 pieces of luggage in 13 minutes. The student would perceive that, according to the boss's expectations, he should be able to unload 10 pieces of luggage per minute. Therefore, if an airplane contains 150 pieces of luggage, he should be allowed 15 minutes to unload the airplane's luggage. By unloading 150 pieces of luggage in 13 minutes, the student would rightly claim that he beat the boss's expectation by two minutes.

When companies design control systems, they compare actual performance to some pre-existing expectation. The pre-existing benchmark needs to make sense so that is can result in meaningful managerial insights and fair-minded assessments of employee performance. This is the fundamental underlying principle of flexible budgets, which will be explained in a subsequent chapter.

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**Exercise 1-3** (30 minutes)

| Examples of Decisions | Application in a University Setting |
|---|---|
| *What should we be selling?* | |
| What products and services should be the focus of our marketing efforts? | How should we allocate our marketing resources, among our undergraduate programs, our graduate programs, our research accomplishments, and our athletic programs? |
| What new products and services should we offer? | Should we introduce a new major for undergraduate students? |
| What prices should we charge for our products and services? | What prices should we establish for our travel abroad programs? |
| What products and services should we discontinue? | Should we discontinue our MBA program? |
| *Who should we be serving?* | |
| Who should be the focus of our marketing efforts? | How much of our marketing budget should we channel towards attracting undergraduate students versus graduate students? |
| Who should we start serving? | Should we introduce on-line programs that enable us to serve customers across the globe? |
| Who should pay price premiums or receive price discounts? | How much should we charge for out-of-state tuition? |
| Who should we stop serving? | Which one of our branch campuses should we close? |
| *How should we execute?* | |
| How should we supply our parts and services? | What portion of our faculty should be adjunct faculty? |
| How should we expand our capacity? | Should we increase our average class size to accommodate more students? |
| How should we reduce our capacity? | Should we cut costs by eliminating administrative jobs or faculty jobs? |
| How should we improve our efficiency and effectiveness? | Should we increase our research expectations for our faculty? |

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**Exercise 1-4** (20 minutes)

1. Failure to report the obsolete nature of the inventory would violate the IMA's Statement of Ethical Professional Practice as follows:

   **Competence**

   - Perform duties in accordance with relevant technical standards. Generally accepted accounting principles (GAAP) require the write-down of obsolete inventory.
   - Prepare decision support information that is accurate.

   **Integrity**

   - Mitigate actual conflicts of interest and avoid apparent conflicts of interest.
   - Refrain from engaging in any conduct that would prejudice carrying out duties ethically.
   - Abstain from activities that would discredit the profession.

   **Credibility**

   - Communicate information fairly and objectively.
   - Disclose all relevant information.
   - Hiding the obsolete inventory impairs the objectivity and relevance of financial statements.

   Members of the management team, of which Perlman is a part, are responsible for both operations and recording the results of operations. Because the team will benefit from a bonus, increasing earnings by ignoring the obsolete inventory is clearly a conflict of interest. Furthermore, such behavior is a discredit to the profession.

   (Unofficial CMA solution)

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**Exercise 1-4** (continued)

2. As discussed above, the ethical course of action would be for Perlman to insist on writing down the obsolete inventory. This would not, however, be an easy thing to do. Apart from adversely affecting her own compensation, the ethical action may anger her colleagues and make her very unpopular. Taking the ethical action would require considerable courage and self-assurance.

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**Exercise 1-5** (60 minutes)

| | Company | Strategy |
|---|---|---|
| 1. | Deere | Product leadership: "Nothing runs like a Deere" |
| 2. | FedEx | Operational excellence: "When it absolutely, positively has to be there overnight" |
| 3. | State Farm Insurance | Customer intimacy: "Like a good neighbor, State Farm is there" |
| 4. | BMW | Product leadership: "The Ultimate Driving Machine" |
| 5. | Amazon.com | Operational excellence: Huge selection of products that are promptly delivered straight to your door |
| 6. | Charles Schwab | Customer intimacy: "Talk to Chuck" |

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**Exercise 1-6** (15 minutes)

| *Industry* | *Type of Risk* | *Control* |
|---|---|---|
| Airlines | An airplane might crash. | Implement a preventive maintenance program. |
| Pharmaceutical drugs | A customer might be harmed by a drug. | Design tamper-proof packaging. |
| Package delivery | A package may get lost. | Implement an electronic package tracking system. |
| Banking | Customer credit card numbers may be stolen. | Implement computer system firewalls to foil computer hackers. |
| Oil & gas | An oil spill may damage the environment. | Create contingency response plans in the event of an oil spill. |
| E-commerce | The company's website might crash. | Develop a backup system that can be easily activated. |
| Automotive | Customers may not like the appearance of a new car model. | Use focus groups to assess reactions to new model prototypes. |

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**Exercise 1-7** (20 minutes)

1. If all automotive service shops routinely tried to sell parts and services to customers that they didn't really need, most customers would eventually figure this out. They would then be reluctant to accept the word of the service representative that a particular problem needs to be corrected—even when a real problem exists. Either the work would not be done, customers would learn to diagnose and repair problems themselves, or customers would hire an independent expert to verify that the work is really needed. All three of these alternatives impose costs and hassles on customers.

2. As argued above, if customers could not trust their service representatives, they would be reluctant to follow the service representative's advice. They would be inclined not to authorize work even when it is really necessary. And, more customers would learn to do automotive repairs and maintenance themselves. Moreover, customers would be unwilling to pay as much for work that is done because customers would have reason to believe that the work may be unnecessary. These two effects would reduce demand for automotive repair services. The reduced demand would reduce employment in the industry and would lead to lower overall profits.

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**Exercise 1-8** (10 minutes)

The type of cognitive bias revealed by this data is called self-enhancement bias. This bias occurs when people overstate their strengths and understate their weaknesses relative to others. This bias may cause managers to be overly-optimistic when making plans for the future. This bias might also cause managers to readily blame others if control data indicates unsatisfactory performance. It can also lead managers to make poor decisions because they believe their managerial prowess can overcome any potential obstacles revealed by an objective data analysis. Managers can help reduce the potential adverse consequences of self-enhancement bias by establishing a "devil's advocate" team of managers that are charged with challenging proposed courses of action.

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**Exercise 1-9** (20 minutes)

The purpose of this exercise is to present students with an opportunity to debate the ethicality of competing courses of action. Some students may argue that the ethical choice is to tell the truth when speaking with the professor from Oregon Coastal University. Other students may argue that it is okay to be untruthful with the professor from Oregon Coastal University because it serves a "greater good" from the standpoint of future Mountain State University students that will be able to avoid Dr. Candler.

The power of rationalization is a very important topic when discussing ethics and decision making. When students are asked a generic question about the ethicality of breaking the law or lying, they quickly condemn these actions as unethical. However, when given specific contexts, such as the one presented in this problem, many students will rationalize unlawful or dishonest conduct.

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**Exercise 1-10** (20 minutes)

The purpose of this exercise is to create a platform for students to debate the merits of the shareholder-focused and stakeholder-focused philosophies of business management. Student responses are likely to fall in three categories. First, those students who believe that the purpose of a company is shareholder wealth maximization will tend to agree with the quote. Second, those students who believe that companies should serve the needs of a broadly defined group of stakeholders may disagree with the quote. Third, some students may argue that the shareholder-focused and stakeholder-focused philosophies of business management are not mutually exclusive. In other words, these students may assert that effectively or ineffectively serving the needs of various stakeholders can have a major impact on a company's financial performance. To support this point-of-view, direct students to the In Business box within Chapter 1 titled "Greenpeace Leverages the Power of Social Media."

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**Exercise 1-11** (20 minutes)

1. This question gives students a platform for discussing the merits of extrinsic motivators in organizations. Student responses should differ regarding the effectiveness of extrinsic rewards in creating an enduring commitment to a set of values or a course of action, thereby enabling a lively debate.

2. This question gives students an opportunity to discuss the roles of intrinsic motivation and extrinsic motivation in organizational management.

3. This question gives students an opportunity to discuss the implementation of compensation systems within organizations. To enrich this discussion, professors can ask students questions such as: (1) Would your incentives be tied to individual performance or team-based performance? (2) Would your incentives be tied to easily attainable goals or stretch targets? and (3) How would you handle the fact that financial incentive systems are often influenced by factors that are beyond the control of those being evaluated?

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**Exercise 1-12** (20 minutes)

1. Most students are likely to recommend reinforcing the sections of the plane that were hit most often by enemy fire. Indeed, during World War II, American military personnel drew the same conclusion.

2. Perceptive students may realize that this is a classic case of selection bias. Selection bias arises when decision makers rely on a sample that is not representative of the entire population being studied. In this case, the military was relying on a sample that included only those planes that had returned from combat. The sample did not include planes lost in combat.

   During World War II statistician Abraham Ward recommended that the portions of the planes hit least often should be reinforced. "Ward reasoned that a plane would be less likely to return if it were hit in a critical area and, conversely, that a plane that did return even when hit had probably not been hit in a critical location."

   Note: The above quote appears on page 118 of Jerker Denrell's article titled "Selection Bias and the Perils of Benchmarking," from the *Harvard Business Review*, Volume 83, Issue 4, pp. 114-119.

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**Exercise 1-13** (20 minutes)

The purpose of this exercise is to present students with an opportunity to debate the ethicality of competing courses of action. Some students may argue that the ethical choice is to report all gambling winnings to the Internal Revenue Service even though it will force them to pay additional federal income taxes. Other students may argue that it is okay to evade the additional income tax for various reasons, such as "everybody else does it so it is okay."

The power of rationalization is a very important topic when discussing ethics and decision making. When students are asked a generic question about the ethicality of breaking the law or lying, they quickly condemn these actions as unethical. However, when given specific contexts, such as the one presented in this problem, many students will rationalize unlawful or dishonest conduct.

Note to instructors: Before beginning a classroom discussion, allow students to anonymously answer the question in writing. Summarize the results of the written responses and ask students to comment on them.

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# Appendix A
# Pricing Products and Services

## Solutions to Questions

**A-1** In cost-plus pricing, prices are set by applying a markup percentage to a product's cost.

**A-2** The price elasticity of demand measures the degree to which a change in price affects unit sales. The unit sales of a product with inelastic demand are relatively insensitive to the price charged for the product. In contrast, the unit sales of a product with elastic demand *are* sensitive to the price charged for the product.

**A-3** The profit-maximizing price should depend only on the variable (marginal) cost per unit and on the price elasticity of demand. Fixed costs do not enter into the pricing decision at all. Fixed costs are relevant in a decision of whether to offer a product or service at all, but are not relevant in deciding what to charge for the product or service once the decision to offer it has been made. Because price affects unit sales, total variable costs are affected by the pricing decision and therefore are relevant.

**A-4** The markup over variable cost depends on the price elasticity of demand. A product whose demand is elastic should have a lower markup over cost than a product whose demand is inelastic. If demand for a product is inelastic, the price can be increased without cutting as drastically into unit sales.

**A-5** The markup in the absorption costing approach to pricing is supposed to cover selling and administrative expenses as well as providing for an adequate return on the assets tied up in the product. Full cost is an alternative approach not discussed in the chapter that is used almost as frequently as the absorption approach. Under the full cost approach, all costs—including selling and administrative expenses—are included in the cost base. If full cost is used, the markup is only supposed to provide for an adequate return on the assets.

**A-6** The absorption costing approach assumes that consumers do not react to prices at all—consumers will purchase the forecasted unit sales regardless of the price that is charged. This is clearly an unrealistic assumption except under very special circumstances.

**A-7** The protection offered by full cost pricing is an illusion. All costs will be covered only if actual sales equal or exceed the forecasted sales on which the absorption costing price is based. There is no assurance that a sufficient number of units will be sold.

**A-8** Target costing is used to price new products. The target cost is the expected selling price of the new product less the desired profit per unit. The product development team is charged with the responsibility of ensuring that actual costs do not exceed this target cost.

This is the reverse of the way most companies have traditionally approached the pricing decision. Most companies start with their full cost and then add their markup to arrive at the selling price. In contrast to target costing, this traditional approach ignores how much customers are willing to pay for the product.

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**Exercise A-1** (30 minutes)

1. Maria makes more money selling the ice cream cones at the lower price, as shown below:

| | *$1.89 Price* | *$1.49 Price* |
|---|---|---|
| Unit sales | 1,500 | 2,340 |
| Sales | $2,835.00 | $3,486.60 |
| Cost of sales @ $0.43 | 645.00 | 1,006.20 |
| Contribution margin | 2,190.00 | 2,480.40 |
| Fixed expenses | 675.00 | 675.00 |
| Net operating income | $1,515.00 | $1,805.40 |

2. The price elasticity of demand, as defined in the text, is computed as follows:

$$\varepsilon_d = \frac{\ln(1+\%\text{ change in quantity sold})}{\ln(1+\%\text{ change in price})}$$

$$= \frac{\ln\left(1+\left(\frac{2{,}340-1{,}500}{1{,}500}\right)\right)}{\ln\left(1+\left(\frac{1.49-1.89}{1.89}\right)\right)}$$

$$= \frac{\ln(1+0.56000)}{\ln(1-0.21164)}$$

$$= \frac{\ln(1.56000)}{\ln(0.78836)}$$

$$= \frac{0.44469}{-0.23780} = -1.87$$

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**Exercise A-1** (continued)

3. The profit-maximizing price can be estimated using the following formula from the text:

$$\text{Profit-maximizing price} = \left(\frac{\varepsilon_d}{1+\varepsilon_d}\right) \text{Variable cost per unit}$$

$$= \left(\frac{-1.87}{1+(-1.87)}\right) \$0.43$$

$$= 2.1494 \times \$0.43 = \$0.92$$

This price is much lower than the prices Maria has been charging in the past. Rather than immediately dropping the price to $0.92, it would be prudent to drop the price a bit and see what happens to unit sales and to profits. The formula assumes that the price elasticity is constant, which may not be the case.

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**Exercise A-2** (15 minutes)

1.

$$\text{Markup percentage on absorption cost} = \frac{\left(\begin{matrix}\text{Required ROI} \\ \times\ \text{Investment}\end{matrix}\right) + \begin{matrix}\text{Selling and administraive} \\ \text{expenses}\end{matrix}}{\text{Unit sales} \times \text{Unit product cost}}$$

$$= \frac{(12\% \times \$750{,}000) + \$50{,}000}{14{,}000 \text{ units} \times \$25 \text{ per unit}}$$

$$= \frac{\$140{,}000}{\$350{,}000} = 40\%$$

2.

| | |
|---|---|
| Unit product cost ..... | $25 |
| Markup (40% × $25) ..... | 10 |
| Selling price per unit ..... | $35 |

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**Exercise A-3** (10 minutes)

| | |
|---|---|
| Sales (300,000 units × $15 per unit)..... | $4,500,000 |
| Less desired profit (12% × $5,000,000)... | 600,000 |
| Target cost for 300,000 units..... | $3,900,000 |

Target cost per unit = $3,900,000 ÷ 300,000 units = $13 per unit

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**Exercise A-4** (45 minutes)

1. The postal service makes more money selling the souvenir sheets at the lower price, as shown below:

| | *$7 Price* | *$8 Price* |
|---|---|---|
| Unit sales | 100,000 | 85,000 |
| Sales | $700,000 | $680,000 |
| Cost of sales @ $0.80 per unit | 80,000 | 68,000 |
| Contribution margin | $620,000 | $612,000 |

2. The price elasticity of demand, as defined in the text, is computed as follows:

$$\varepsilon_d = \frac{\ln(1 + \%\text{ change in quantity sold})}{\ln(1 + \%\text{ change in price})}$$

$$= \frac{\ln\left(1 + \left(\frac{85{,}000 - 100{,}000}{100{,}000}\right)\right)}{\ln\left(1 + \left(\frac{8 - 7}{7}\right)\right)}$$

$$= \frac{\ln(1 - 0.1500)}{\ln(1 + 0.1429)}$$

$$= \frac{\ln(0.8500)}{\ln(1.1429)}$$

$$= \frac{-0.1625}{0.1336}$$

$$= -1.2163$$

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**Exercise A-4** (continued)

3. The profit-maximizing price can be estimated using the following formula from the text:

$$\text{Profit-maximizing price} = \left(\frac{\varepsilon_d}{1+\varepsilon_d}\right)\text{Variable cost per unit}$$

$$= \left(\frac{-1.2163}{1+(-1.2163)}\right)\$0.80$$

$$= 5.6232 \times \$0.80 = \$4.50$$

This price is much lower than the price the postal service has been charging in the past. Rather than immediately dropping the price to $4.50, it would be prudent for the postal service to drop the price a bit and observe what happens to unit sales and to profits. The formula assumes that the price elasticity of demand is constant, which may not be true.

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**Exercise A-4** (continued)

The critical assumption in these calculations is that the percentage increase (decrease) in quantity sold is always the same for a given percentage decrease (increase) in price. If this is true, we can estimate the demand schedule for souvenir sheets as follows:

| *Price*[*] | *Quantity Sold*[§] |
|---|---|
| $8.00 | 85,000 |
| $7.00 | 100,000 |
| $6.13 | 117,647 |
| $5.36 | 138,408 |
| $4.69 | 162,833 |
| $4.10 | 191,569 |
| $3.59 | 225,375 |
| $3.14 | 265,147 |
| $2.75 | 311,937 |
| $2.41 | 366,985 |

[*] The price in each cell in the table is computed by taking 7/8 of the price just above it in the table. For example, $6.13 is 7/8 of $7.00 and $5.36 is 7/8 of $6.13.

[§] The quantity sold in each cell of the table is computed by multiplying the quantity sold just above it in the table by 100,000/85,000. For example, 117,647 is computed by multiplying 100,000 by the fraction 100,000/85,000.

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**Exercise A-4** (continued)

The profit at each price in the above demand schedule can be computed as follows:

| *Price (a)* | *Quantity Sold (b)* | *Sales (a) × (b)* | *Cost of Sales $0.80 × (b)* | *Contribution Margin* |
|---|---|---|---|---|
| $8.00 | 85,000 | $680,000 | $68,000 | $612,000 |
| $7.00 | 100,000 | $700,000 | $80,000 | $620,000 |
| $6.13 | 117,647 | $721,176 | $94,118 | $627,058 |
| $5.36 | 138,408 | $741,867 | $110,726 | $631,141 |
| $4.69 | 162,833 | $763,687 | $130,266 | $633,421 |
| $4.10 | 191,569 | $785,433 | $153,255 | $632,178 |
| $3.59 | 225,375 | $809,096 | $180,300 | $628,796 |
| $3.14 | 265,147 | $832,562 | $212,118 | $620,444 |
| $2.75 | 311,937 | $857,827 | $249,550 | $608,277 |
| $2.41 | 366,985 | $884,434 | $293,588 | $590,846 |

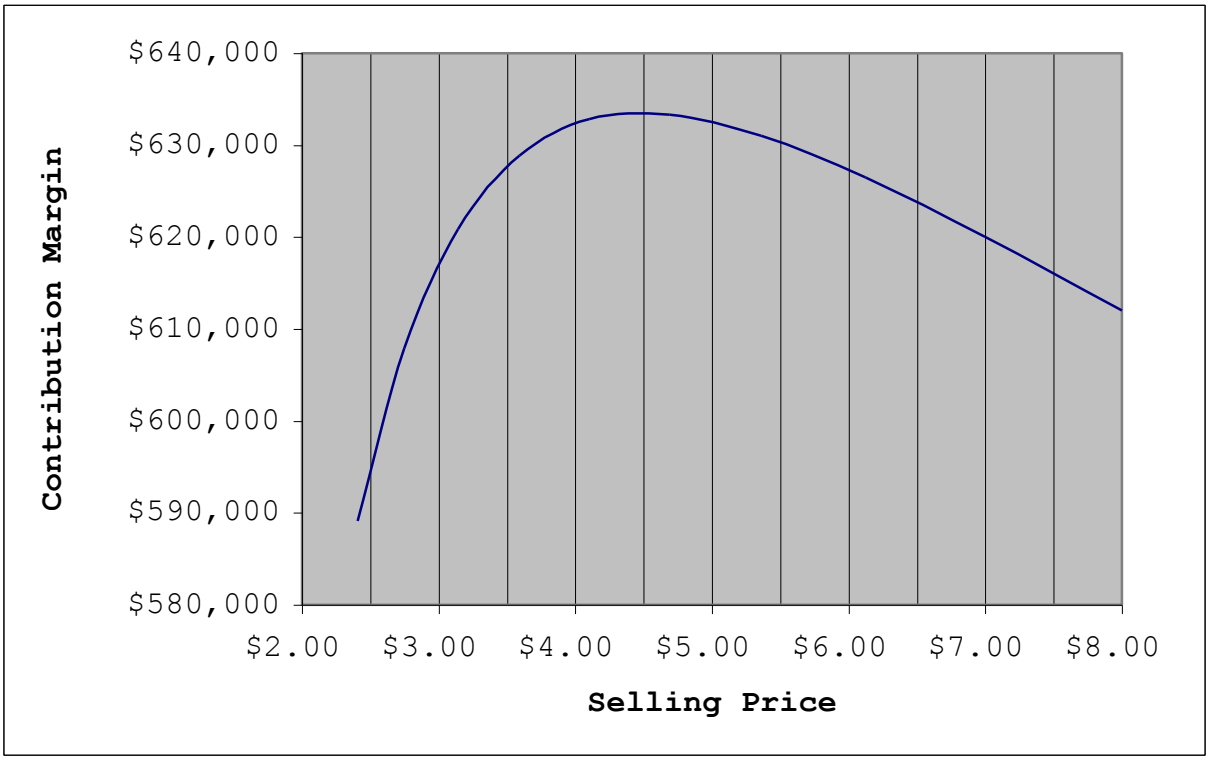
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**Exercise A-4** (continued)

The contribution margin is plotted below as a function of the selling price:




The plot confirms that the profit-maximizing price is about $4.50.

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**Exercise A-4** (continued)

4. If the postal service wants to maximize the contribution margin and profit from sales of souvenir sheets, the new price should be:

$$\text{Profit-maximizing price} = \left(\frac{\varepsilon_d}{1+\varepsilon_d}\right)\text{Variable cost per unit}$$

$$= \left(\frac{-1.2163}{1+(-1.2163)}\right)\$1.00$$

$$= 5.6232 \times \$1.00 = \$5.62$$

Note that a $0.20 increase in cost has led to a $1.12 ($5.62 – $4.50) increase in selling price. This is because the profit-maximizing price is computed by multiplying the variable cost by 5.6232. Because the variable cost has increased by $0.20, the profit-maximizing price has increased by $0.20 × 5.6232, or $1.12.

Some people may object to such a large increase in price as "unfair" and some may even suggest that only the $0.20 increase in cost should be passed on to the consumer. The enduring popularity of full-cost pricing may be explained to some degree by the notion that prices should be "fair" rather than calculated to maximize profits.

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**Problem A-5** (45 minutes)

1. a. Number of pads manufactured each year:

38,400 labor-hours ÷ 2.4 labor-hours per pad = 16,000 pads.

Selling and administrative expenses:

| | |
|---|---|
| Variable (16,000 pads × $9 per pad)..... | $144,000 |
| Fixed ..... | 732,000 |
| Total..... | $876,000 |

$$\text{Markup percentage on absorption cost} = \frac{\left(\begin{matrix}\text{Required ROI} \\ \times\ \text{Investment}\end{matrix}\right) + \begin{matrix}\text{Selling and administrative} \\ \text{expenses}\end{matrix}}{\text{Unit sales} \times \text{Unit product cost}}$$

$$= \frac{(24\% \times \$1{,}350{,}000) + \$876{,}000}{16{,}000 \text{ pads} \times \$60 \text{ per pad}}$$

$$= \frac{\$1{,}200{,}000}{\$960{,}000}$$

$$= 125\%$$

b.

| | |
|---|---|
| Direct materials ..... | $ 10.80 |
| Direct labor ..... | 19.20 |
| Manufacturing overhead ..... | 30.00 |
| Unit product cost ..... | 60.00 |
| Add markup: 125% of unit product cost .. | 75.00 |
| Selling price..... | $135.00 |

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**Problem A-5** (continued)

c. The income statement is:

| | | |
|---|---|---|
| Sales (16,000 pads × $135 per pad) | | $2,160,000 |
| Cost of goods sold (16,000 pads × $60 per pad) | | 960,000 |
| Gross margin | | 1,200,000 |
| Selling and administrative expenses: | | |
| Sales commissions | $144,000 | |
| Salaries | 82,000 | |
| Warehouse rent | 50,000 | |
| Advertising and other | 600,000 | |
| Total selling and administrative expense | | 876,000 |
| Net operating income | | $ 324,000 |

The company's ROI computation for the pads will be:

$$\text{ROI} = \frac{\text{Net Operating Income}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Average Operating Assets}}$$

$$= \frac{\$324,000}{\$2,160,000} \times \frac{\$2,160,000}{\$1,350,000}$$

$$= 15\% \times 1.6 = 24\%$$

2. Variable cost per unit:

| | |
|---|---|
| Direct materials | $10.80 |
| Direct labor | 19.20 |
| Variable manufacturing overhead (1/5 × $30) | 6.00 |
| Sales commissions | 9.00 |
| Total | $45.00 |

If the company has idle capacity and sales to the retail outlet would not affect regular sales, any price above the variable cost of $45 per pad would add to profits. The company should aggressively bargain for more than this price; $45 is simply the rock-bottom floor below which the company should not go in its pricing.

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**Problem A-6** (60 minutes)

1. Supporting computations:

   Number of hours worked per year:
   20 workers × 40 hours per week × 50 weeks = 40,000 hours.

   Number of surfboards produced per year:
   40,000 hours ÷ 2 hours per surfboard = 20,000 surfboards.

   Standard cost per surfboard:
   $1,600,000 ÷ 20,000 surfboards = $80 per surfboard.

   Fixed manufacturing overhead cost per surfboard:
   $600,000 ÷ 20,000 surfboards = $30 per surfboard.

   Manufacturing overhead per surfboard:
   $5 variable + $30 fixed = $35.

   Direct labor cost per surfboard:
   $80 – ($27 + $35) = $18.

   Given the computations above, the completed standard cost card would be as follows:

| | *Standard Quantity or Hours* | *Standard Price or Rate* | *Standard Cost* |
|---|---|---|---|
| Direct materials..... | 6 feet | $4.50 per foot | $27 |
| Direct labor ..... | 2 hours | $9.00 per hour* | 18 |
| Manufacturing overhead .... | 2 hours | $17.50 per hour** | 35 |
| Total standard cost per surfboard..... | | | $80 |

   * $18 ÷ 2 hours = $9 per hour
   ** $35 ÷ 2 hours = $17.50 per hour

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**Problem A-6** (continued)

2. a.

$$\text{Markup percentage on absorption cost} = \frac{\left(\begin{matrix}\text{Required ROI} \\ \times\ \text{Investment}\end{matrix}\right) + \begin{matrix}\text{Selling and administrative} \\ \text{expenses}\end{matrix}}{\text{Unit sales} \times \text{Unit product cost}}$$

$$= \frac{(18\% \times \$1{,}500{,}000) + \$1{,}130{,}000}{20{,}000 \text{ units} \times \$80 \text{ per unit}}$$

$$= \frac{\$1{,}400{,}000}{\$1{,}600{,}000} = 87.5\%$$

b.

| | |
|---|---|
| Direct materials | $ 27 |
| Direct labor | 18 |
| Manufacturing overhead | 35 |
| Total cost to manufacture | 80 |
| Add markup: 87.5% | 70 |
| Selling price | $150 |

c.

| | |
|---|---|
| Sales (20,000 boards × $150 per board) | $3,000,000 |
| Cost of goods sold (20,000 boards × $80 per board) | 1,600,000 |
| Gross margin | 1,400,000 |
| Selling and administrative expenses | 1,130,000 |
| Net operating income | $ 270,000 |

$$\text{ROI} = \frac{\text{Net Operating Income}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Average Operating Assets}}$$

$$= \frac{\$270{,}000}{\$3{,}000{,}000} \times \frac{\$3{,}000{,}000}{\$1{,}500{,}000}$$

$$= 9\% \times 2$$

$$= 18\%$$

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**Problem A-6** (continued)

3. Total fixed costs:

| | |
|---|---|
| Manufacturing overhead | $ 600,000 |
| Selling and administrative [$1,130,000 – (20,000 boards × $10 per board)] | 930,000 |
| Total fixed costs | $1,530,000 |

Variable costs per board:

| | |
|---|---|
| Direct materials | $27 |
| Direct labor | 18 |
| Variable manufacturing overhead | 5 |
| Variable selling | 10 |
| Variable cost per board | $60 |

To achieve the 18% ROI, the company would have to sell at least the 20,000 units assumed in part (2) above. The break-even volume can be computed as follows:

$$\text{Break-even point in units sold} = \frac{\text{Fixed expenses}}{\text{Unit contribution margin}}$$

$$= \frac{\$1{,}530{,}000}{\$150 \text{ per board} - \$60 \text{ per board}}$$

$$= 17{,}000 \text{ boards}$$

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**Problem A-7** (60 minutes)

1. The complete, filled-in table appears below:

| *Selling Price* | *Estimated Unit Sales* | *Sales* | *Variable Cost* | *Fixed Expenses* | *Net Operating Income* |
|---|---|---|---|---|---|
| $25.00 | 50,000 | $1,250,000 | $300,000 | $960,000 | -$10,000 |
| $23.75 | 54,000 | $1,282,500 | $324,000 | $960,000 | -$1,500 |
| $22.56 | 58,320 | $1,315,699 | $349,920 | $960,000 | $5,779 |
| $21.43 | 62,986 | $1,349,790 | $377,916 | $960,000 | $11,874 |
| $20.36 | 68,025 | $1,384,989 | $408,150 | $960,000 | $16,839 |
| $19.34 | 73,467 | $1,420,852 | $440,802 | $960,000 | $20,050 |
| $18.37 | 79,344 | $1,457,549 | $476,064 | $960,000 | $21,485 |
| $17.45 | 85,692 | $1,495,325 | $514,152 | $960,000 | $21,173 |
| $16.58 | 92,547 | $1,534,429 | $555,282 | $960,000 | $19,147 |
| $15.75 | 99,951 | $1,574,228 | $599,706 | $960,000 | $14,522 |

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**Problem A-7** (continued)

2. A chart based on the above table would look like the following:




Based on this chart, a selling price of about $18 would maximize net operating income.

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**Problem A-7** (continued)

3. The price elasticity of demand, as defined in the text, is computed as follows:

$$\varepsilon_d = \frac{\ln(1 + \%\text{ change in quantity sold})}{\ln(1 + \%\text{ change in price})}$$

$$= \frac{\ln(1+0.08)}{\ln(1-0.05)}$$

$$= \frac{\ln(1.08)}{\ln(0.95)}$$

$$= \frac{0.07696}{-0.05129}$$

$$= -1.500$$

The profit-maximizing price can be estimated using the following formula from the text:

$$\text{Profit-maximizing price} = \left(\frac{\varepsilon_d}{1+\varepsilon_d}\right)\text{Variable cost per unit}$$

$$= \left(\frac{-1.5}{1+(-1.5)}\right)\$6.00$$

$$= 3.00 \times \$6.00 = \$18.00$$

Note that this answer is consistent with the plot of the data in part (2) above. The formula for the profit-maximizing price works in this case because the demand is characterized by constant price elasticity. Every 5% decrease in price results in an 8% increase in unit sales.

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**Problem A-7** (continued)

4. We must first compute the markup percentage, which is a function of the required ROI of 2%, the investment of $2,000,000, the unit product cost of $6, and the SG&A expenses of $960,000.

$$\text{Markup percentage on absorption cost} = \frac{\left(\text{Required ROI} \times \text{Investment}\right) + \text{Selling and administrative expenses}}{\text{Unit sales} \times \text{Unit product cost}}$$

$$= \frac{(2\% \times \$2{,}000{,}000) + \$960{,}000}{50{,}000 \text{ units} \times \$6 \text{ per unit}}$$

$$= 3.33 \text{ (rounded) or } 333\%$$

| | |
|---|---|
| Unit product cost ..... | $ 6.00 |
| Markup ($6.00 × 3.33)..... | 19.98 |
| Selling price..... | $25.98 |

Charging $25.98 (or $26 rounded) for the software would be a big mistake if the marketing manager is correct about the effect of price changes on unit sales. The chart prepared in part (2) above strongly suggests that the company would lose lots of money selling the software at this price.

Note: It can be shown that the unit sales at the $25.98 price would be about 47,198 units if the marketing manager is correct about demand. If so, the company would lose about $16,984 per month:

| | |
|---|---|
| Sales (47,198 units × $25.98 per unit) ..... | $1,226,204 |
| Variable cost (47,198 units × $6 per unit)... | 283,188 |
| Contribution margin ..... | 943,016 |
| Fixed expenses..... | 960,000 |
| Net operating loss..... | $ (16,984) |

5. If the marketing manager is correct about demand, increasing the price above $18 per unit will result in a decrease in net operating income and hence in the return on investment. To increase the net operating income, the owners should look elsewhere. They should attempt to decrease costs or increase the perceived value of the product to more customers so that more units can be sold at any given price or the price can be increased without sacrificing unit sales.

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**Problem A-8** (45 minutes)

1. 

| | |
|---|---|
| Projected sales (100 machines × $4,950 per machine) | $495,000 |
| Less desired profit (15% × $600,000) | 90,000 |
| Target cost for 100 machines | $405,000 |
| | |
| Target cost per machine ($405,000 ÷ 100 machines) | $4,050 |
| Less National Restaurant Supply's variable selling cost per machine | 650 |
| Maximum allowable purchase price per machine | $3,400 |

2. The relation between the purchase price of the machine and ROI can be developed as follows:

$$\text{ROI} = \frac{\text{Total projected sales - Total cost}}{\text{Investment}}$$

$$= \frac{\$495{,}000 - (\$650 + \text{Purchase price of machines}) \times 100}{\$600{,}000}$$

The above formula can be used to compute the ROI for purchase prices between $3,000 and $4,000 (in increments of $100) as follows:

| *Purchase price* | *ROI* |
|---|---|
| $3,000 | 21.7% |
| $3,100 | 20.0% |
| $3,200 | 18.3% |
| $3,300 | 16.7% |
| $3,400 | 15.0% |
| $3,500 | 13.3% |
| $3,600 | 11.7% |
| $3,700 | 10.0% |
| $3,800 | 8.3% |
| $3,900 | 6.7% |
| $4,000 | 5.0% |

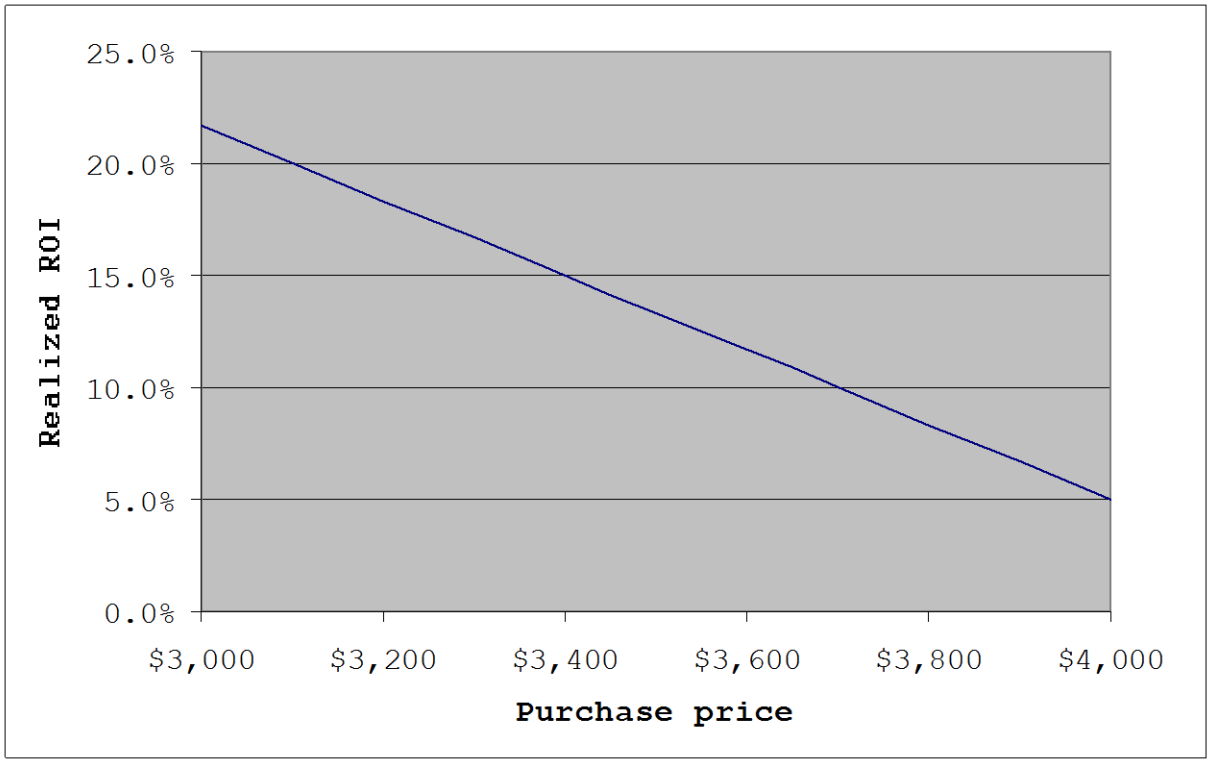
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**Problem A-8** (continued)

Using the above data, the relation between purchase price and ROI can be plotted as follows:




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**Problem A-8** (continued)

3. A number of options are available in addition to simply giving up on adding the new sorbet machines to the company's product lines. These options include:
   - Check the projected unit sales figures. Perhaps more units could be sold at the $4,950 price. However, management should be careful not to indulge in wishful thinking just to make the numbers come out right.
   - Modify the selling price. This does not necessarily mean increasing the projected selling price. Decreasing the selling price may generate enough additional unit sales to make carrying the sorbet machines more profitable.
   - Improve the selling process to decrease the variable selling costs.
   - Rethink the investment that would be required to carry this new product. Can the size of the inventory be reduced? Are the new warehouse fixtures really necessary?
   - Does the company really need a 15% ROI? Does it cost the company this much to acquire more funds?

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# MANAGERIAL ACCOUNTING FOR MANAGERS 3rd EDITION
# by Noreen Brewer Garrison
# CHAPTER 2

## Internet Exercise #1

The websites of selected companies appear below:

- Biolea (http://www.biolea.gr).
- Evian at (http://www.evian.com).
- Gulf Craft Inc. (http://www.gulfcraftinc.com).
- Ircon International Limited (http://www.irconinternational.com).

Review the information about the operations of each company that is provided on the company's website. Write a brief summary (one paragraph) for each of the four companies that includes a:

- A brief description of the operations of the company and
- Two specific examples of possible:
    - Fixed costs,
    - Variable costs, and
    - Mixed costs.

## Solution

Students' answers may vary somewhat for each of the companies below.

- Biolea is an olive oil producer; as the producer of a food product, students may offer various answers for example costs. However, variable costs could include costs of olives, containers, shipping costs and flavorings. Possible fixed costs could include factory depreciation, cost of storage vats for oil, and costs of factory building. Mixed costs might include cost of factory supervisory salaries for varying levels of production, cost of factory natural gas and/or electricity for processing equipment and advertising costs (which could include a charge for media access plus a charge for each time ad is run.)
- Evian is a bottled water producer. Like Biolea, as the producer of bottled water, variable costs could include the cost of containers, bottle labels, and the cost of shipping the water to distributors. Fixed costs could include costs of bottling equipment, costs of water storage tanks, and costs of executives' base salaries. Possible mixed costs could include the costs of factory utilities (base charge plus fees based on usage), and salespersons' salaries if based on a base salary plus commissions.
- Ircon is an international engineering and construction projects company. As such, its variable costs could include raw materials such as wood, steel, and nails. Possible fixed costs could include the cost of construction machinery and equipment used for building. Finally, the mixed costs for the company might include construction machinery rental equipment (if based on a flat fee plus usage charge), and retainer fees for consultants (if based on flat fixed charge plus a charge based on hourly usage).

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- Gulf Craft, Inc. the producer of custom-made boats and yachts. Their variable costs could include the costs of wood, cloth used in sails and upholstery, and riggings. Possible fixed costs include the charges for their factory building and equipment, and salaries of the plant maintenance workers. Mixed costs for the company could include the costs of transportation of their products to their customers (assuming a fixed cost of the transport vehicles plus variable costs based on miles traveled and number of trips) and sales commissions on boat sales (if consisting of a base salary plus commission on sales.)

## Internet Exercise #2

Most retailers have a high proportion of variable costs (cost of goods sold) in their cost structures. Search the Securities and Exchange Commission's EDGAR corporate filings data base at http://www.sec.gov/edgarhp.htm for the annual report of Form 10-K of a major retail merchant. Using information from each of the three years included in the company's most recent Form 10-K, perform the following:

- Calculate how the corporation's costs have changed as sales have changed over the time period covered by the Form 10-K. (In particular, restate cost of goods sold as a percentage of sales.)
- Calculate the other major cost categories as a percentage of sales over the time period covered by the Form 10-K.

Report the name of the company selected, summarize the financial results and calculations made related to sales and cost of goods sold for the three most recent years, and comment on any trends noted. Show your work.

## Solution

The major retailers chosen by the students will determine the appropriate answer to this assignment. The instructor should grade the summaries accordingly based on the student's fulfillment of the requirements. However, each student's the summary should clearly identify the retail firm selected, the summarized financial data, and observations related to the trends noted especially in terms of cost of goods sold.

## Internet Exercise #3

Perform an Internet search using the term, contribution margin, and locate an article (less than one year old) from the results of your search. (Make sure that you do not select an instructor's lecture notes or a class assignment from the results of your search.) After reading the article, write a brief paper (3 – 5 paragraphs) that summarizes and comments on the article. (Your paper should provide the appropriate citation(s). If necessary, you may wish to refer to the following website, which includes information about citations: http://www.cod.edu/library/research/citenet.htm.)

## Solution

The article chosen by the student will determine the appropriate answer to this assignment. The instructor should grade the papers based on the student's fulfillment of the requirements, with particular attention to their summary and/or critique of the article,

the student's proper citation of the article chosen, and compliance with the general length guideline provided (that is, 3 – 5 paragraphs).

## Internet Exercise #4

Perform an Internet search using the term, opportunity costs, and locate an article (less than one year old) from the results of your search. (Make sure that you do not select an instructor's lecture notes or a class assignment from the results of your search.) After reading the article, write a brief paper (3 – 5 paragraphs) that summarizes and comments on the article. (Your paper should provide the appropriate citation(s). If necessary, you may wish to refer to the following website, which includes information about citations: http://www.cod.edu/library/research/citenet.htm.)

## Solution

The article chosen by the student will determine the appropriate answer to this assignment. The instructor should grade the papers based on the student's fulfillment of the requirements, with particular attention to their summary and/or critique of the article, the student's proper citation of the article chosen, and compliance with the general length guideline provided (that is, 3 – 5 paragraphs).

## Internet Exercise #5 (Appendix 2B)

The Malcolm Baldrige National Quality Award program maintains a website at http://www.quality.nist.gov that provides information about the prestigious Malcolm Baldrige award. Review the information provided on this website. Then, write a brief paper (3 - 5 paragraphs) that:

- Describes the Malcolm Baldrige award.
- Identifies recent winners of this award (including their industries).
- Discusses whether winners are any more successful than other organizations *(Hint: Consider exploring the "**Why Take the Baldridge Journey**" link on home page.)*

## Solution

- The award is based on attainment of high quality standards and is typically awarded to very few organizations each year.
- The instructor should consult the website at the time of the assignment to determine recent recipients of the award and their industries. Answers will vary about the success of the award winning organizations.
- The "Why Take the Baldridge Journey" information on the website notes that organizations benefit from the application process from the review of the organization's procedures that it requires and that the winners of the award have typically had higher stock performance that non-winners in the past.

## Internet Exercise #6 (Appendix 2B)

The Total Quality Engineering Company (TQEC) maintains a website at http://www.tqe.com. Click on the White Papers link to access a set of papers on various quality subjects written by TQEC President, Pete Babich. Choose one of the quality management papers. After reading it, write a brief paper (3 – 5 paragraphs) that

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summarizes it. (Your paper should provide the appropriate citation(s). If necessary, you may wish to refer to the following website, which includes information about citations: http://www.cod.edu/library/research/citenet.htm.)

## Solution

The articles chosen by the students will determine the appropriate answer to this assignment. The instructor should consult the website at the time the assignment is given, and grade the submissions accordingly based on the student's fulfillment of the requirements for a summary, comment, and proper citation of the article selected.

# Managerial Accounting: An Overview

Chapter 1

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# Financial and Managerial Accounting: Seven Key Differences

| | Financial Accounting | Managerial Accounting |
|---|---|---|
| 1. Users | External persons who make financial decisions | Managers who plan for and control an organization |
| 2. Time focus | Historical perspective | Future emphasis |
| 3. Verifiability versus relevance | Emphasis on objectivity and verifiability | Emphasis on relevance |
| 4. Precision versus timeliness | Emphasis on precision | Emphasis on timeliness |
| 5. Subject | Primary focus is on companywide reports | Focus on segment reports |
| 6. Rules | Must follow GAAP / IFRS and prescribed formats | Not bound by GAAP / IFRS or any prescribed format |
| 7. Requirement | Mandatory for external reports | Not Mandatory |

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# Work of Management

Planning

Controlling



Decision Making

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# Planning



Establish Goals.

Specify How Goals Will Be Achieved.

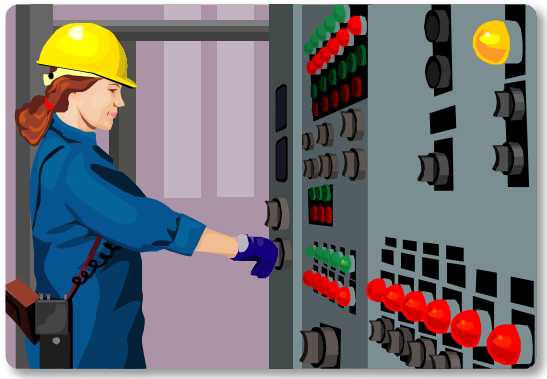
Develop Budgets.

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# Controlling

The control function gathers feedback to ensure that plans are being followed.

Feedback in the form of performance reports that compare actual results with the budget are an essential part of the control function.



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# Decision Making

Decision making involves making a selection among competing alternatives.



What should we be selling?

Who should we be serving?

How should we execute?

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# Managerial Accounting Activities: Marketing Majors

Planning

How much should we budget for TV, print, and internet advertising?

How many salespeople should we plan to hire to serve a new territory?




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# Managerial Accounting Activities: Marketing Majors

Controlling

Is the budgeted price cut increasing unit sales as expected?

Are we accumulating too much inventory during the holiday shopping season?




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# Managerial Accounting Activities: Marketing Majors

Decision Making

Should we sell our services as one bundle or sell them separately?

Should we sell directly to customers or use a distributor?




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# Managerial Accounting Activities: Operations Management Majors

Planning

How many units should we plan to produce next period?

How much should we budget for next period's utility expense?



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# Managerial Accounting Activities: Operations Management Majors

Controlling

Did we spend more or less than expected for the units we actually produced?



Are we achieving our goal of reducing the number of defective units produced?

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# Managerial Accounting Activities: Operations Management Majors

Decision Making

Should we buy a new piece of equipment or upgrade our existing machine?



Should we redesign our manufacturing process to lower inventory levels?

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# Managerial Accounting Activities: Human Resource Management Majors

Planning

How much should we plan to spend for occupational safety training?

How much should we plan to spend on employee recruitment advertising?



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# Managerial Accounting Activities: Human Resource Management Majors

Controlling

Is our employee retention rate exceeding our goals?

Are we meeting our goal of completing timely performance appraisals?



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# Managerial Accounting Activities: Human Resource Management Majors

Decision Making

Should we hire an on-site medical staff to lower our healthcare costs?

Should we hire temporary workers or full-time employees?

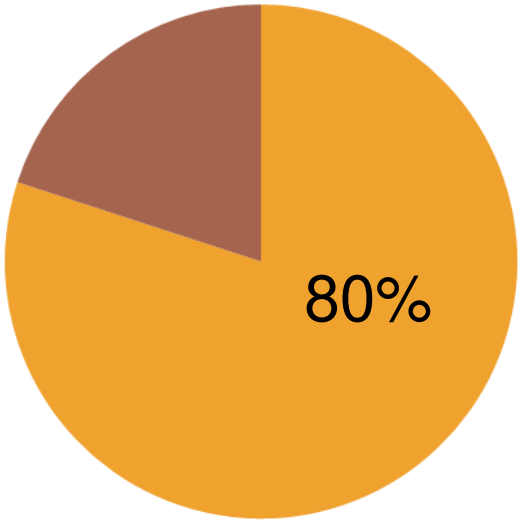


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# Accounting Majors

Many accounting graduates begin working for public accounting firms. However, most leave at some point to work in other organizations.






The IMA estimates that 80% of professional accountants in the U.S. work in non-public accounting environments.

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# Certified Management Accountant

A management accountant who has the necessary qualifications and who passes a rigorous professional exam earns the right to be known as a Certified Management Accountant (CMA).



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# CMA Exam

***Part 1 Financial Planning, Performance and Control***

External financial reporting decisions
Planning, budgeting, and forecasting
Performance management
Cost management
Internal controls

***Part 2 Financial Decision Making***

Financial statement analysis
Corporate finance
Decision analysis
Risk management
Investment decisions
Professional ethics

Information about becoming a CMA and the CMA program can be accessed on the IMA's website at www.imanet.org or by calling 1-800-638-4427.

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# An Ethics Perspective

The Institute of Management Accountant's (IMA) Statement of Ethical Professional Practice consists of two parts that offer guidelines for:

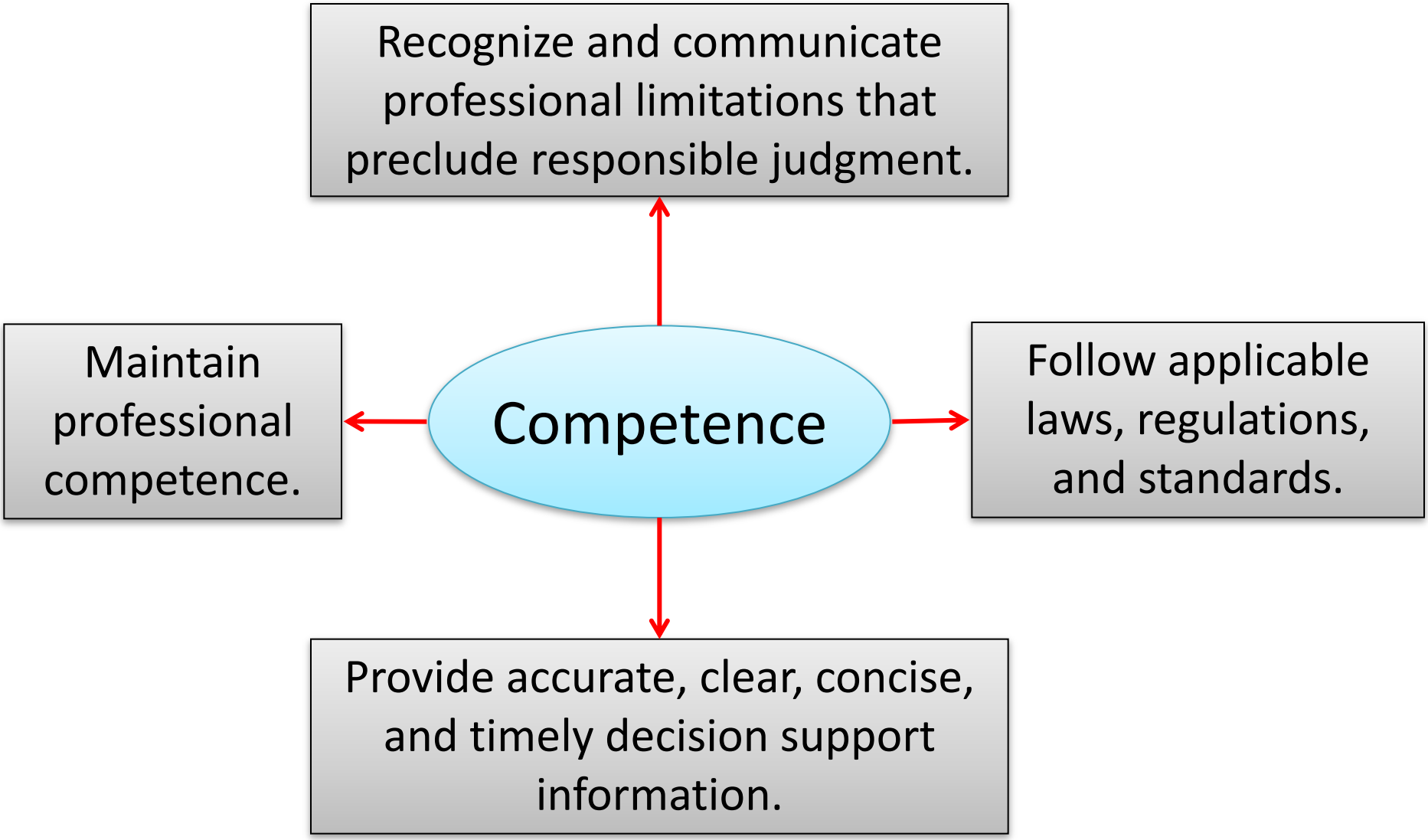
❶ Ethical behavior.

❷ Resolution for an ethical conflict.



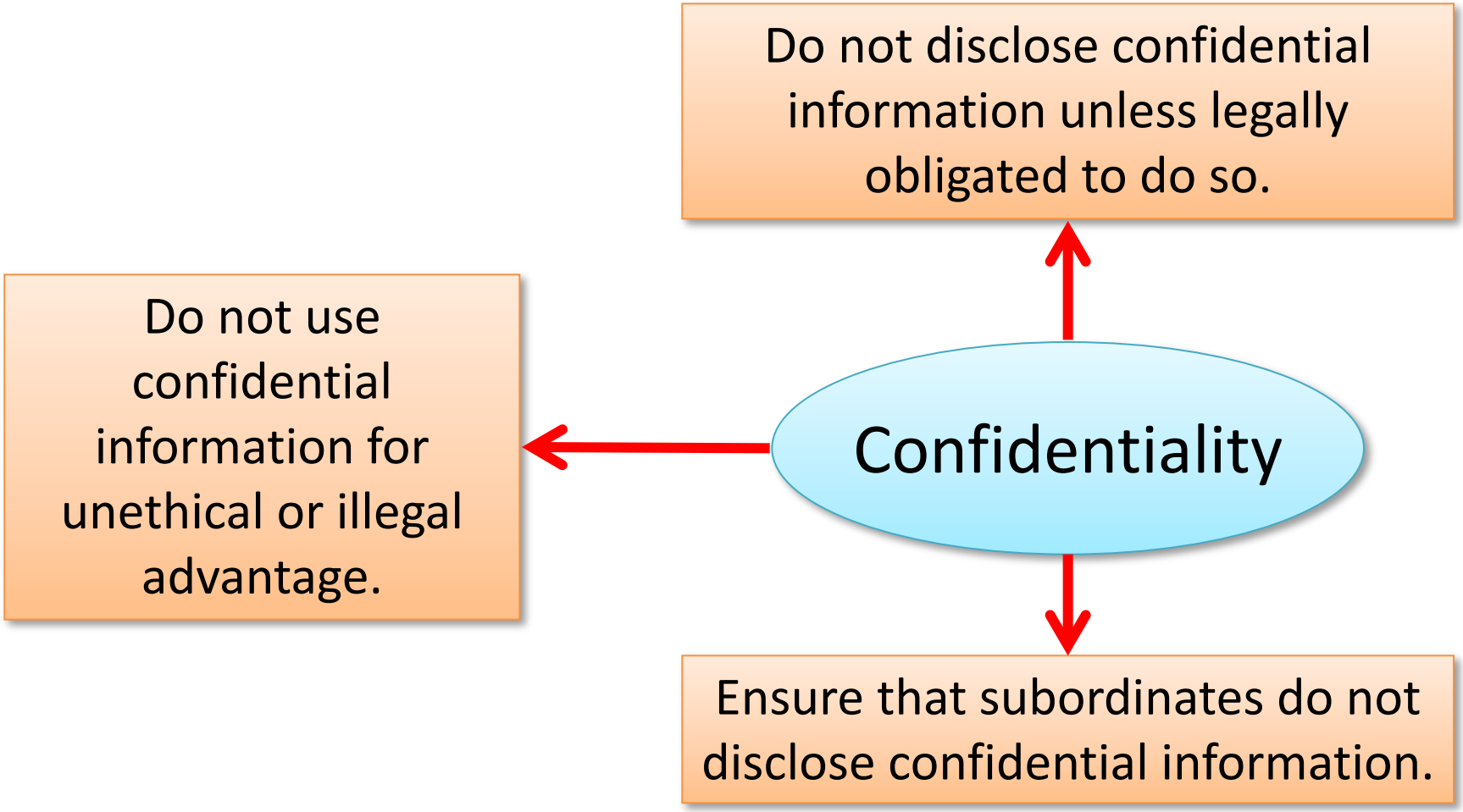
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# Guidelines for Ethical Behavior



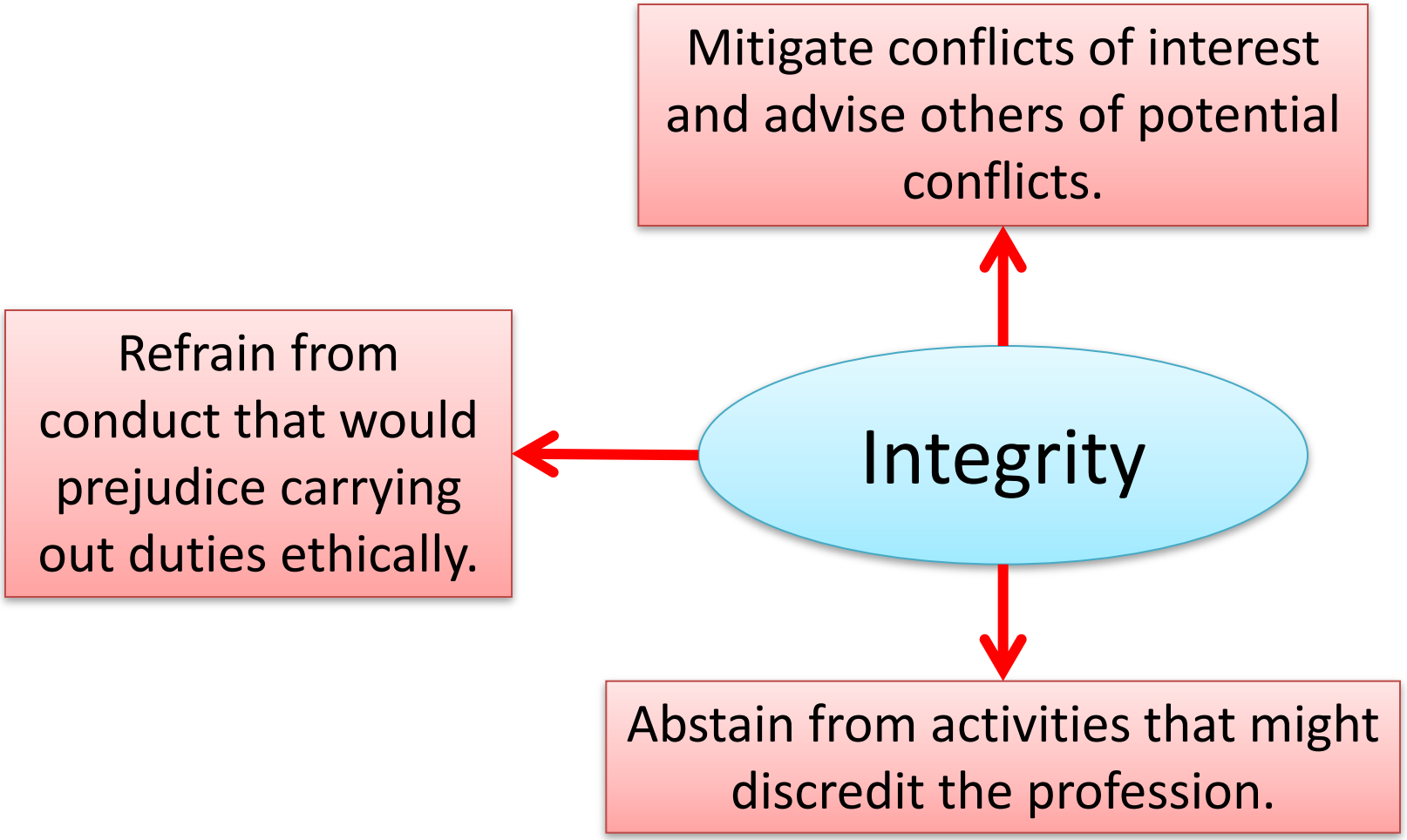

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# Guidelines for Ethical Behavior



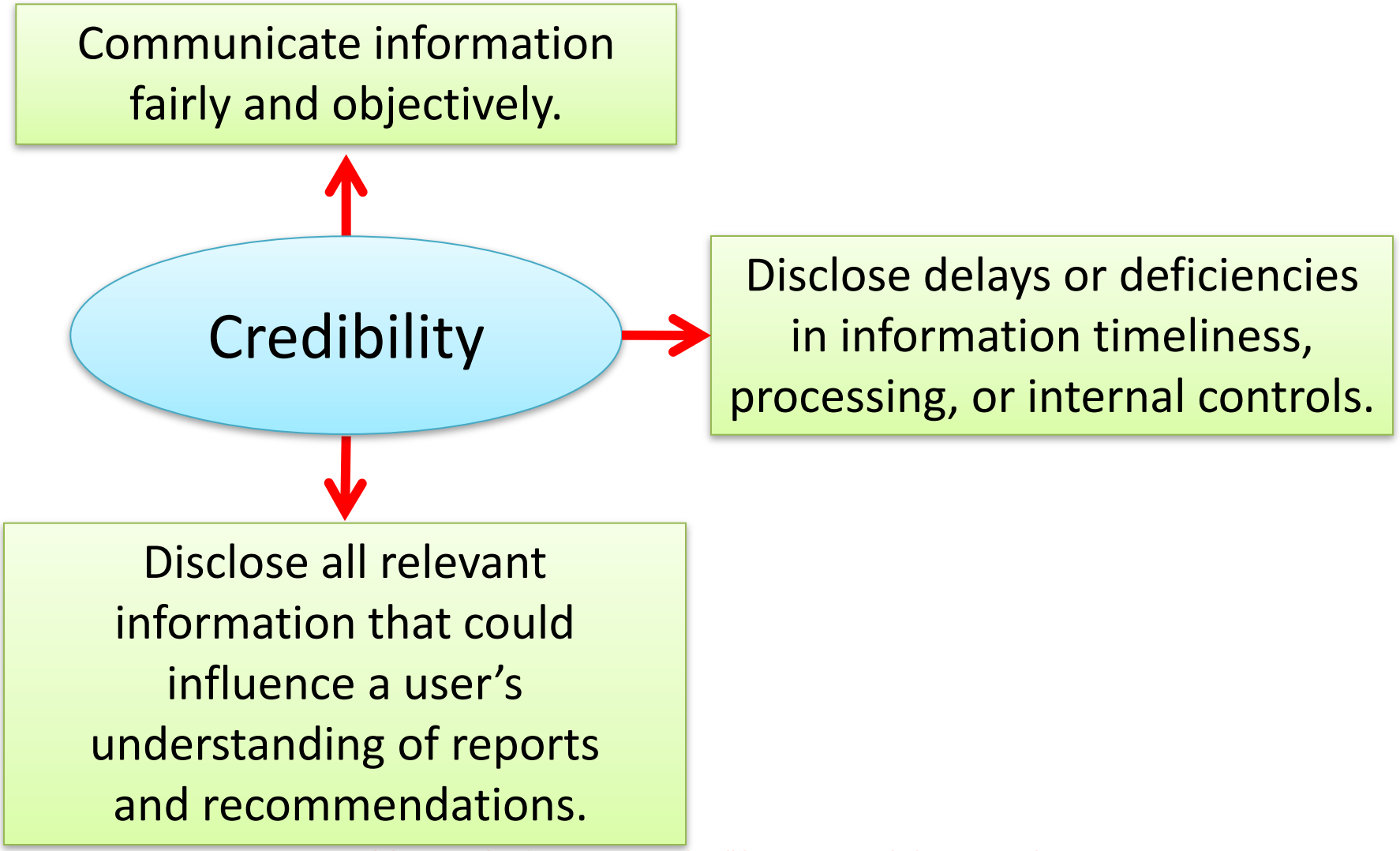

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# Guidelines for Ethical Behavior




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# IMA Guidelines for Ethical Behavior




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# Guidelines for Resolution of an Ethical Conflict

**Follow employer's established policies.**

**For an unresolved ethical conflict:**

1. Discuss the conflict with immediate supervisor or next highest uninvolved managerial level.

   If immediate supervisor is the CEO, consider the board of directors or the audit committee.

   Contact with levels above the immediate supervisor should only be initiated with the supervisor's knowledge, assuming the supervisor is not involved.

   Except where legally prescribed, communication with individuals not employed by the organization is not appropriate.



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# Guidelines for Resolution of an Ethical Conflict

**For an unresolved ethical conflict (continued):**

2. Clarify relevant ethical issues with an objective advisor, such as a member of the IMA's Ethics Counseling Service.

3. Consult an attorney regarding your legal responsibilities.



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# Why Have Ethical Standards?

Ethical standards in business are essential for a smooth functioning economy.

Without ethical standards in business, the economy, and all of us who depend on it for jobs, goods, and services, would suffer.

Abandoning ethical standards in business would lead to a lower quality of life with less desirable goods and services at higher prices.

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# A Strategic Management Perspective

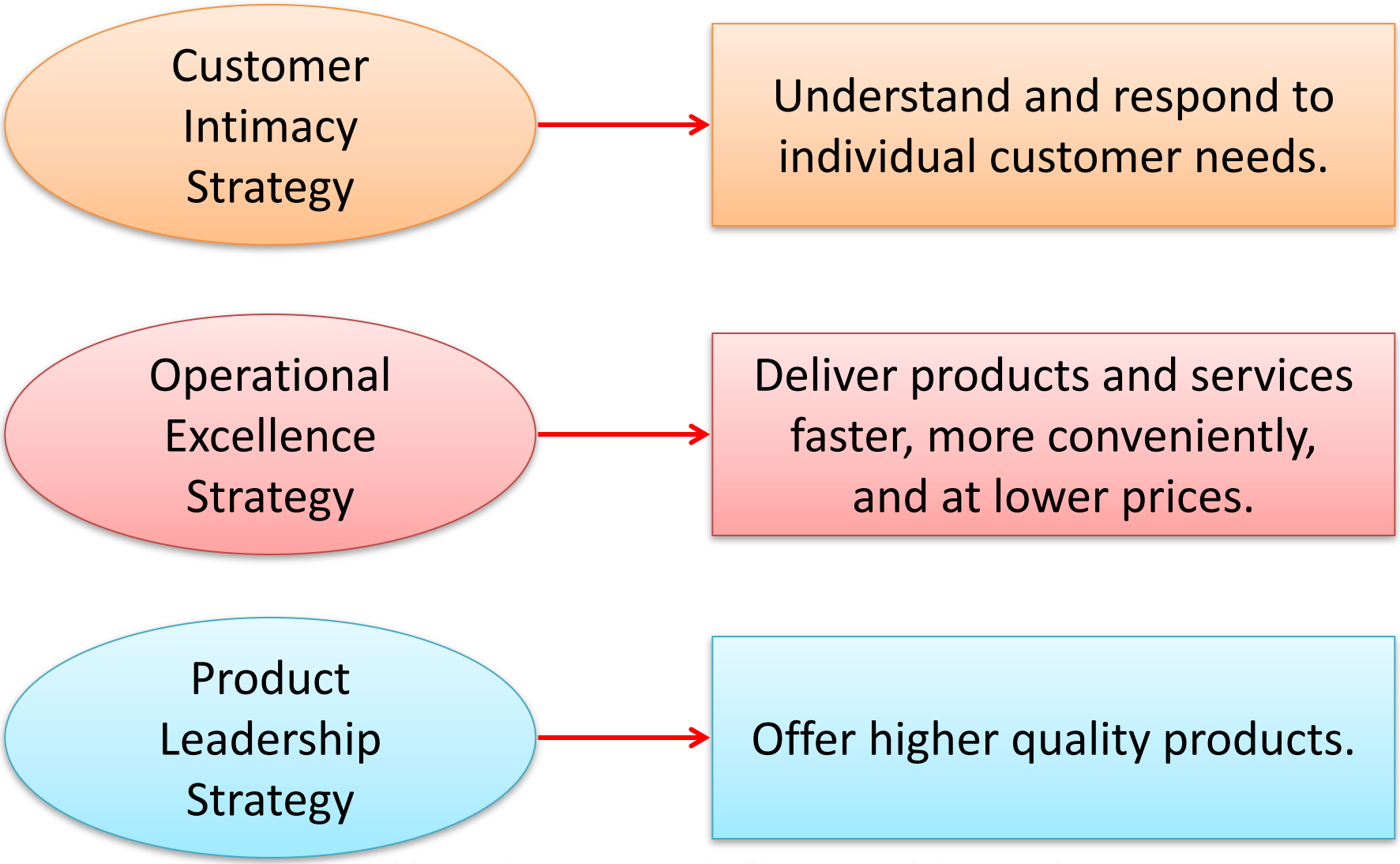
A strategy
is a "game plan" that enables a company
to attract customers by distinguishing itself
from competitors.



The focal point of a company's strategy should be its target customers.

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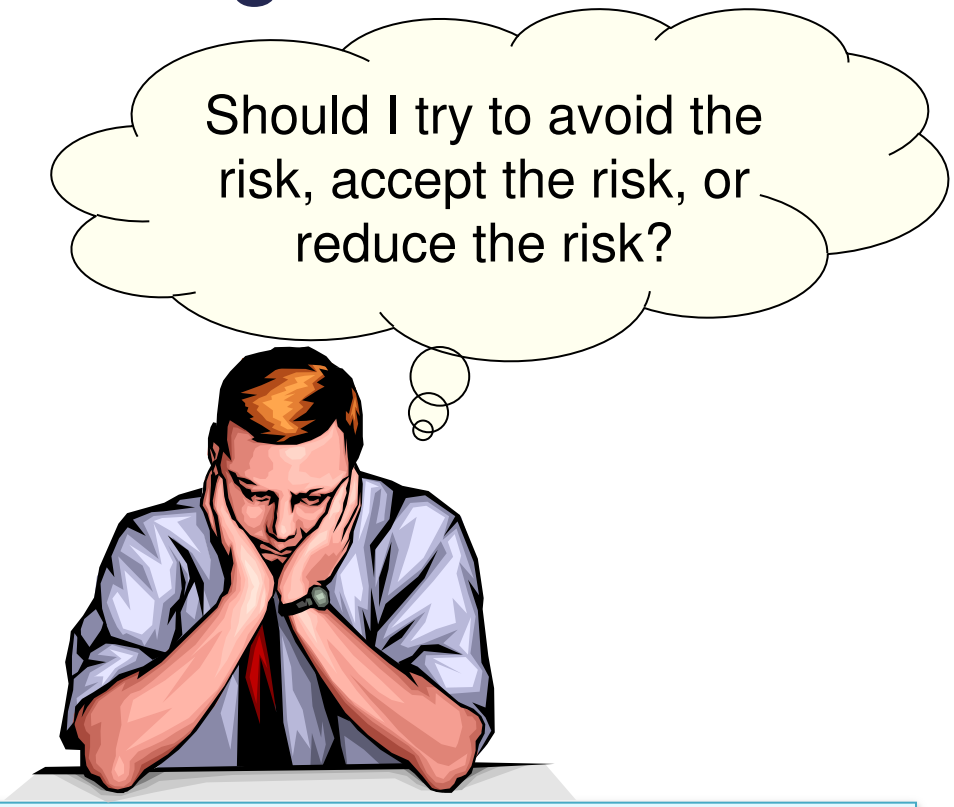
# Customer Value Propositions




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# Enterprise Risk Management

A process used by a company to proactively identify and manage risk.




Once a company identifies its risks, perhaps the most common risk management tactic is to reduce risks by implementing specific controls.

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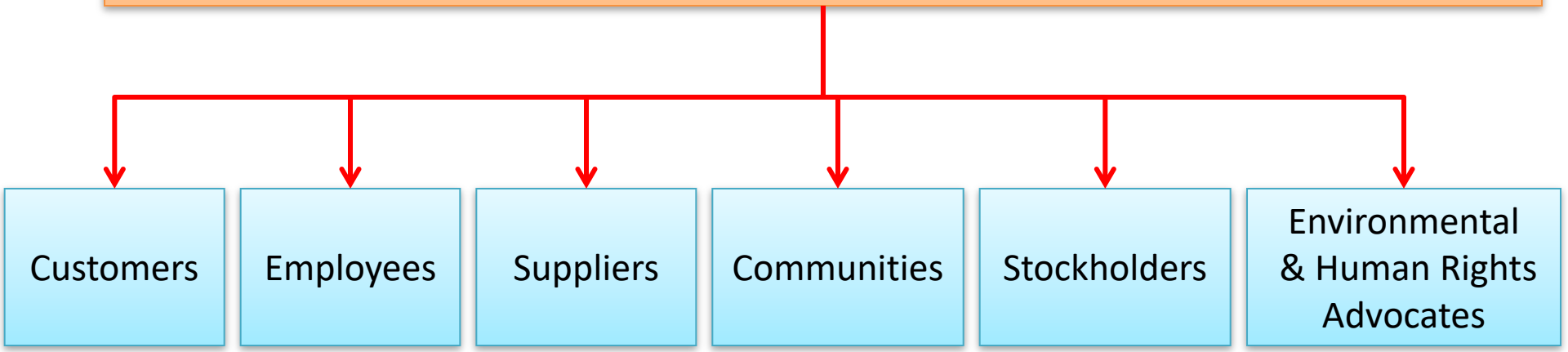
# Enterprise Risk Management

| Examples of Business Risks | Examples of Controls to Reduce Business Risks |
|---|---|
| • Products harming customers | • Develop a formal and rigorous new product testing program |
| • Losing market share due to the unforeseen actions of competitors | • Develop an approach for legally gathering information about competitors' plans and practices |
| • Poor weather conditions shutting down operations | • Develop contingency plans for overcoming weather-related disruptions |
| • Website malfunction | • Thoroughly test the website before going "live" on the Internet |
| • A supplier strike halting the flow of raw materials | • Establish a relationship with two companies capable of providing raw materials |
| • Financial statements unfairly reporting the value of inventory | • Count the physical inventory on hand to make sure that it agrees with the accounting records |
| • An employee accessing unauthorized information | • Create password-protected barriers that prohibit employees from obtaining information not needed to do their jobs |

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# Corporate Social Responsibility

Corporate social responsibility (CSR) is a concept whereby organizations consider the needs of all stakeholders when making decisions.




CSR extends beyond legal compliance to include voluntary actions that satisfy stakeholder expectations.

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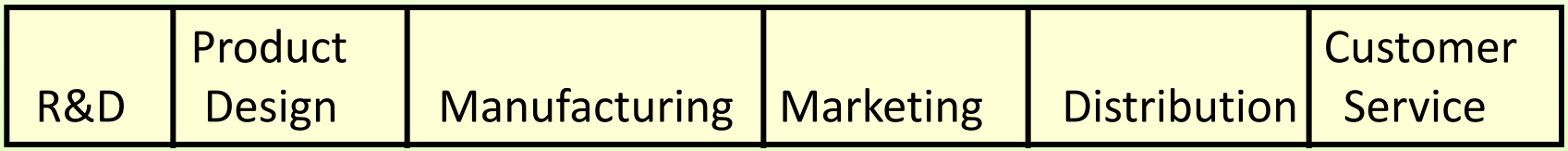
# Corporate Social Responsibility

| Examples of Corporate Social Responsibility | |
|---|---|
| Companies should provide **customers** with:<br>• Safe, high quality products that are fairly priced<br>• Competent, courteous, and rapid delivery of products and services<br>• Full disclosure of product-related risks<br>• Easy to use information systems for shopping and tracking orders | Companies and their suppliers should provide **employees** with:<br>• Safe and humane working conditions<br>• Non-discriminatory treatment and the right to organize and file grievances<br>• Fair compensation<br>• Opportunities for training, promotion, and personal development |
| Companies should provide **suppliers** with:<br>• Fair contract terms and prompt payments<br>• Reasonable time to prepare orders<br>• Hassle-free acceptance of timely and complete deliveries<br>• Cooperative rather than unilateral actions | Companies should provide **communities** with:<br>• Payment of fair taxes<br>• Honest information about plans such as plant closings<br>• Resources that support charities, schools, and civic activities<br>• Reasonable access to media sources |
| Companies should provide **stockholders** with:<br>• Competent management<br>• Easy access to complete and accurate financial information<br>• Full disclosure of enterprise risks<br>• Honest answers to knowledgeable questions | Companies should provide **environmental and human rights advocates** with:<br>• Greenhouse gas emissions data<br>• Recycling and resource conservation data<br>• Child labor transparency<br>• Full disclosure of suppliers located in developing countries |

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# Process Management Perspective

A business process is a series of steps that are followed in order to carry out some task in a business.




Business functions making up the value chain

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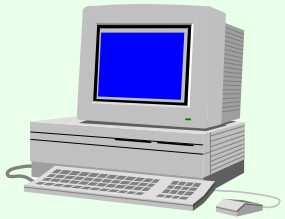
# Lean Production



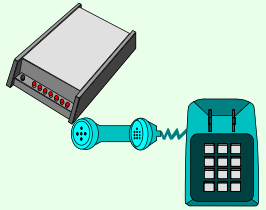
Customer places an order



Create Production Order



Generate component requirements



Components are ordered



Production begins as parts arrive



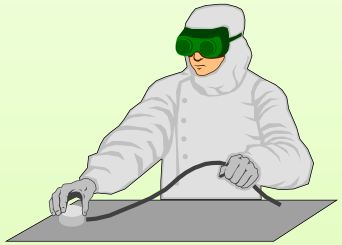
Goods delivered when needed

Lean Production is often called Just-In-Time (JIT) production.

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# Lean Production

## Traditional Manufacturing



Produce goods in anticipation of Sales



Store Inventory



Make Sales from Finished Goods Inventory

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# Lean Production

Because lean thinking only allows production in response to customer orders, the number of units produced tends to equal the number of units sold.



The lean approach also results in fewer defects, less wasted effort, and quicker customer response times than traditional production methods.

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# The Theory of Constraints (TOC)

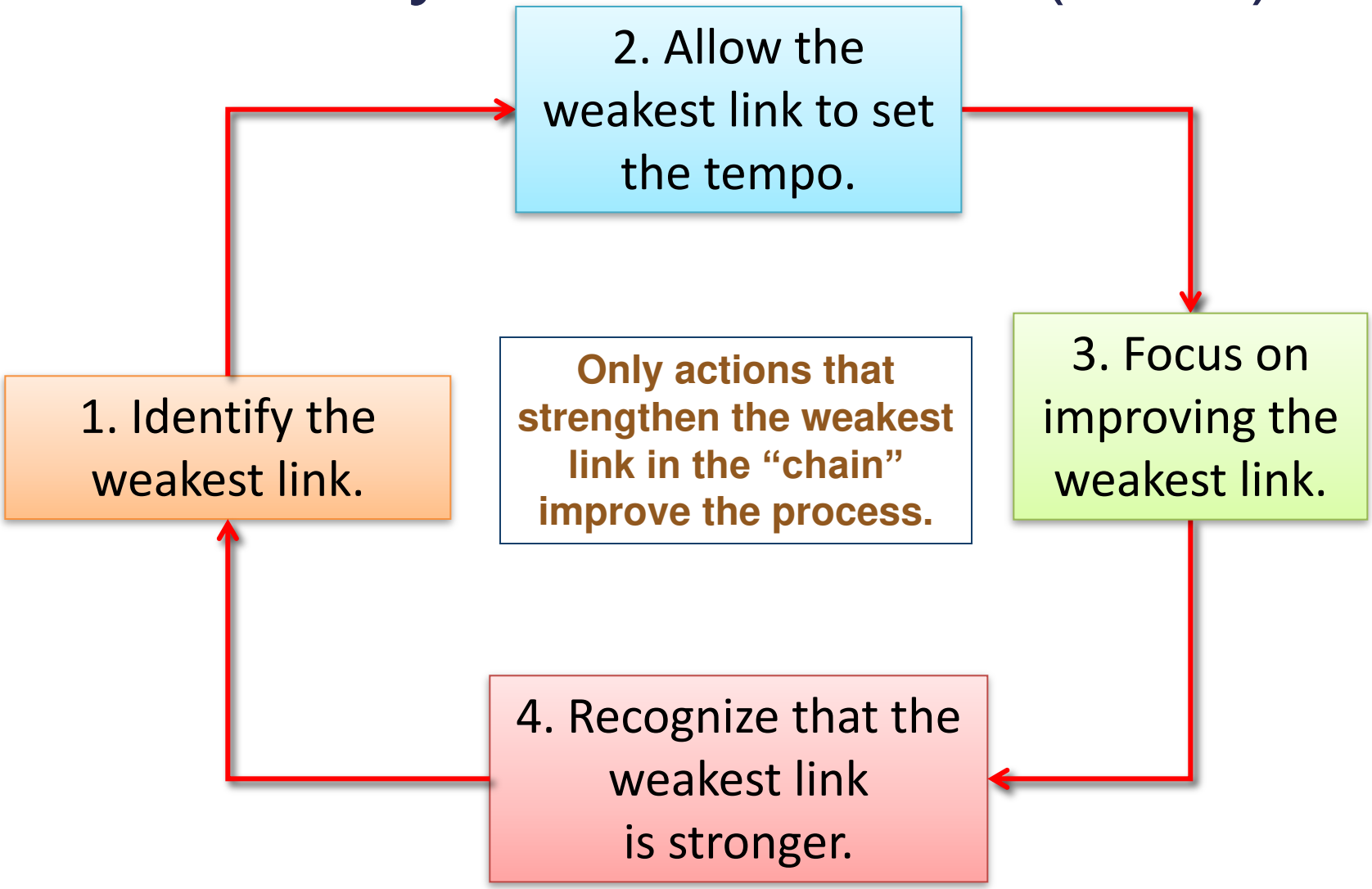
A constraint (also called a bottleneck) is anything that prevents you from getting more of what you want. The Theory of Constraints (TOC) is based on the observation that effectively managing the constraint is the key to success.

The constraint in a system is determined by the step that has the smallest capacity.



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# The Theory of Constraints (TOC)




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# Measurement Skills

A good manager complements an understanding of strategy, risks, and business processes with data-driven analysis.



The key to effective analysis is to understand that the question you are addressing defines what you measure and how you analyze the data.

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# Measurement Skills



What net income should my company report to its stockholders?

→ Measure and report historical data that complies with applicable rules.

How will my company serve its customers?

→ Measure and analyze mostly non-financial, process-oriented data.

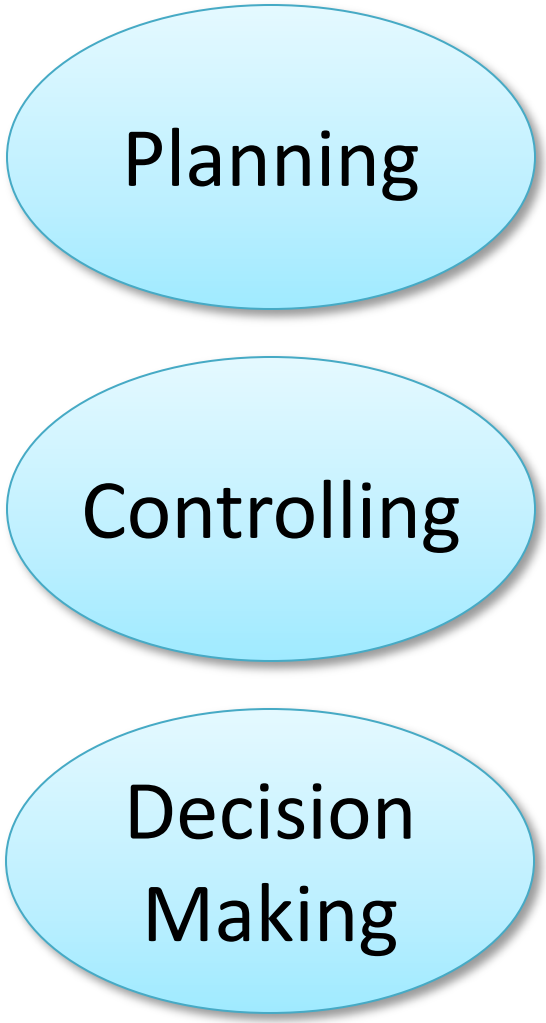
Will my company need to borrow money?

→ Measure and analyze estimated future cash flows.

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# Measurement Skills

The primary purpose of this course is to teach measurement skills that managers use to support planning, controlling, and decision making activities.




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# Leadership Perspective

**Six Skills of an Effective Leader**




1. Technical competence
2. High integrity
3. Understand how to implement organizational change
4. Strong communication skills
5. Capable of motivating and mentoring other people
6. Effectively manage team-based decision processes

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# End of Chapter 1




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