Chapter 1
Managerial Accounting in the Information Age

QUESTIONS

1. The goal of managerial accounting is to provide information needed for planning, control, and decision making.

2. The planning and control process begins with the development of a plan. Managers take actions to implement the plan and the results of their actions are evaluated by comparing actual results to the plan. Evaluation supports control of the organization. Anticipating that the evaluation process will affect rewards/punishments, managers work to achieve planned results. The evaluation process may also identify operations that need to be changed or indicate that plans should be revised.

3. Budgeted performance is a useful benchmark for evaluating current period performance.

4. This question asks students to identify three differences between financial and managerial accounting. In the text, five differences are noted:
   1. Managerial accounting is directed at internal rather than external users of accounting information.
   2. Managerial accounting may deviate from generally accepted accounting principles (GAAP).
   3. Managerial accounting may present more detailed information.
   4. Managerial accounting may present more nonmonetary information.
   5. Managerial accounting places more emphasis on the future.

5. Examples of nonmonetary information that might appear in managerial accounting reports include: the quantity of material consumed in production, the number of hours worked by the office staff, and the number of product defects.

6. Variable costs change in proportion to business activity while fixed costs do not change.

7. Salaries of the home appliance sales force would be a controllable cost for the manager of the home appliance department at a Sears’ store. Depreciation related to the department store building would be a noncontrollable cost.
8. Incremental analysis involves a comparison of the revenues that change and the costs that change when a decision alternative is selected. If incremental revenue exceeds incremental cost, a decision alternative should be undertaken.

9. “You get what you measure!” suggests that managers’ behaviors are affected by performance measures.

10. The controller and the treasurer report to the chief financial officer (CFO).

11. Information flows up and down the value chain—between a company and its suppliers and between a company and its customers. Information technology is helping companies track buying patterns of customers and send targeted selling messages to them via email. Information technology is also helping companies better manage their supply chains and gain internal efficiencies.

12. A legal action is not necessarily ethical. Ethical actions involve “what’s right” while legal actions involve operating within boundaries of the law.
**EXERCISES**

E1. Suppose the company selected is Microsoft.

**Measure 1:** Number of errors in a piece of software.
- **Favorable outcome:** Number of errors is reduced.
- **Unfavorable outcome:** Software products are not released on a timely basis.

**Measure 2:** Percent of sales to new customers.
- **Favorable outcome:** Sales staff works hard to develop new clients.
- **Unfavorable outcome:** Company loses existing customers who receive less attention from the sales staff.

**Measure 3:** Average time spent handling customer service calls.
- **Favorable outcome:** Customer service representatives handle more calls per hour.
- **Unfavorable outcome:** Customer questions are not fully addressed and customer satisfaction decreases.

E2. The only costs that are relevant to a decision are incremental costs—that is, costs that change when an action is taken. The cost of the old printer is sunk and will not change. Therefore, it is irrelevant to Nancy’s decision.

E3. The code suggests that Guthrie clarify the ethical issue by confidential discussion with an objective advisor (this might be the IMA Ethics Counseling service) to obtain a better understanding of possible courses of action.

Guthrie should then discuss the problem with the manager to whom his boss reports (since his boss is involved in the ethical dilemma). Unless required by law, communication of the problem to authorities or individuals outside the organization is not appropriate.
E4. Megan can prepare a profit budget for each store (planning). At the end of the accounting period, she can compare actual profit to the budget for each store (control). Significant differences from the budget should be investigated to determine their cause.

E5. c

E6. Margo should not be concerned that cost of sales has increased. Cost of sales is a variable cost and it is expected that it will increase when sales increase. In the budget, cost of sales ($60,000) is 60% of sales ($100,000). Actual cost of sales ($70,000) is 58% of actual sales ($120,000). Thus, while cost of sales has increased, it has not increased disproportionate to the increase in sales.

E7. For purposes of awarding bonuses, it may be advisable to record sales when orders are placed so that the sales force is rewarded on a timely basis. If the company waited until the order was delivered, the sales force might be rewarded more than a year after obtaining a customer order. The point is that for internal reporting purposes, companies need not follow GAAP.

E8. a. variable  
   b. fixed  
   c. variable  
   d. fixed

E9. a. variable  
   b. variable  
   c. fixed  
   d. fixed  
   e. variable
E10. A cost is controllable by a manager whose actions affect the cost. Thus, for example, advertising may be a controllable cost for a store manager (who decides how much to spend on advertising) but it would not be a controllable cost for the manager of a department at the store (who is not consulted about the amount to spend on advertising).

E11. Anne should not consider how much she paid for the old machine because that is a sunk cost. She should consider the value of the old machine in the used photocopier market—an incremental cash inflow equal to the market value of the old machine will result if she buys a new photocopy machine.

E12. Incremental revenue per day $2,000

Less incremental costs:

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor</td>
<td>600</td>
</tr>
<tr>
<td>Parts</td>
<td>400</td>
</tr>
<tr>
<td>Transportation</td>
<td>40</td>
</tr>
<tr>
<td>Office staff</td>
<td>100</td>
</tr>
</tbody>
</table>

Net $ 860

Opportunity cost = $860 per day × 52 = $44,720

Rent and depreciation do not enter into the calculation of the opportunity cost since these costs are not incremental (they will be incurred whether or not Ken decides to stay open on Saturday).

E13. If Gordon visits his friend, he will incur a $400 ($16 hours × $25) opportunity cost.
E14. The incremental cost per gallon is likely to be less than $5 because part of the $5 amount relates to fixed costs such as depreciation of equipment. If the incremental cost per gallon is less than $5, then the incremental cost of 10,000 gallons is less than $50,000.

E15. a. When a second shift is added, material costs, worker salary, and benefits are likely to increase.

b. Depreciation of the building will not increase when a second shift is added.

E16. Yes, the new measures are likely to affect manager behavior. Possible responses include:
1. More meetings with customers.
2. Customers treated with more courtesy.
3. Improvement to internal processes so that orders can be processed promptly.
4. Hiring of additional workers so that orders can be delivered on time.

E17. Wal-Mart uses technology to allow suppliers to check sales and returns at each of its stores. This allows suppliers to better manage production and delivery and drive down their costs. The cost savings is shared (hopefully) among the suppliers, Wal-Mart, and consumers. An example of a key supplier for Wal-Mart is Proctor and Gamble.

Or, consider Cisco Systems, which makes equipment to hook companies up to the Internet. Some of its customer orders require components from multiple suppliers. Its information system is such that when an order is received over Cisco’s website, the system automatically contacts manufacturers of the needed components.
PROBLEMS

P1. a. Marie’s Pie Company
Production Costs Budget
May, 2006

<table>
<thead>
<tr>
<th>Production</th>
<th>16,000 Pies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingredient cost</td>
<td>$20,000</td>
</tr>
<tr>
<td>Labor cost</td>
<td>24,000</td>
</tr>
<tr>
<td>Rent</td>
<td>5,000</td>
</tr>
<tr>
<td>Depreciation</td>
<td>6,000</td>
</tr>
<tr>
<td>Other</td>
<td>1,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$56,000</strong></td>
</tr>
</tbody>
</table>

b. With a wage rate of $20, 1,200 hours ($24,000 ÷ $20) will be needed in May. In April, only 1,125 hours were needed ($22,500 ÷ $20). Thus, 75 additional hours will be needed in May. The company can plan on hiring a part-time worker in May (approximately 20 hours per week) or the additional hours can be addressed with overtime.

Unless management anticipates the need for the part-time worker (by preparing a budget), he or she may not be hired on a timely basis.

c. The actual cost per unit in April was $3.55 ($53,250 ÷ 15,000 units). The cost per unit in May is anticipated to be only $3.50 ($56,000 ÷ 16,000 units). Unit cost declines because some costs are fixed and do not increase with increases in volume.
P2. a. The variable costs are $2.75 per pie as follows:

<table>
<thead>
<tr>
<th>Production</th>
<th>15,000 Pies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingredient cost</td>
<td>$18,750</td>
</tr>
<tr>
<td>Labor cost</td>
<td>22,500</td>
</tr>
<tr>
<td>Total</td>
<td>$41,250</td>
</tr>
</tbody>
</table>

$41,250 ÷ 15,000 pies = $2.75 per pie.

Thus, the incremental cost of producing an extra 50,000 pies is $137,500 (i.e., $2.75 x 50,000).

b. The incremental revenue associated with a price reduction of $0.30 is $125,000 as follows:

| Original Revenue (200,000 x $4.00) | $800,000 |
| Revenue with price change (250,000 x $3.70) | 925,000 |
| Incremental revenue associated with price change | $125,000 |

c. The price should not be lowered since the incremental cost of this action ($137,500 in part a) exceeds the incremental revenue ($125,000 in part b).

P3.

Sales Department
Budgeted Costs, 2006
(Assuming Sales of $11,000,000)

| Salaries (fixed) | $400,000 |
| Commissions (variable) | 110,000 |
| Advertising (set by president) | 100,000 |
| Charge for office space (fixed) | 2,000 |
| Office supplies & forms (variable) | 1,100 |
| Total | $613,100 |
P4. a. Sales increased by 12.5% ($450,000 ÷ $400,000), while cost of merchandise increased by 35% and salaries increased by only 10%. Thus, the investigation should focus on cost of merchandise since a 35% increase is disproportionate to the increase in sales.

b. Electricity would not be a controllable cost for the manager of children’s clothing, and it is doubtful that including it on a performance report for children’s clothing would be useful.

P5. a. Variable production costs will increase with the number of units produced, while fixed production costs will not increase. In the example, it is reasonable to assume that materials, direct labor and utilities are variable costs while the remaining costs (supervisory salaries, machine maintenance, depreciation of building, depreciation of equipment and janitorial) are fixed. (Note that a case can be made for other classifications.)

b. Assuming that material, direct labor, and utilities are variable costs while other costs are fixed, the budget could be revised as follows:

<table>
<thead>
<tr>
<th>Units</th>
<th>50,000</th>
<th>55,000</th>
<th>Actual</th>
<th>Percent of Rev. Bud.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Original Budget</td>
<td>Revised Budget</td>
<td>Costs</td>
<td>Diff.</td>
</tr>
<tr>
<td>Material</td>
<td>$2,000,000</td>
<td>$2,200,000</td>
<td>$2,200,000</td>
<td>$0</td>
</tr>
<tr>
<td>Direct labor</td>
<td>1,500,000</td>
<td>1,650,000</td>
<td>1,600,000</td>
<td>(50,000)</td>
</tr>
<tr>
<td>Supervisory salaries</td>
<td>300,000</td>
<td>300,000</td>
<td>350,000</td>
<td>50,000</td>
</tr>
<tr>
<td>Utilities</td>
<td>40,000</td>
<td>44,000</td>
<td>41,000</td>
<td>(3,000)</td>
</tr>
<tr>
<td>Machine maintenance</td>
<td>160,000</td>
<td>160,000</td>
<td>163,000</td>
<td>3,000</td>
</tr>
<tr>
<td>Depreciation of building</td>
<td>40,000</td>
<td>40,000</td>
<td>40,000</td>
<td>0</td>
</tr>
<tr>
<td>Depreciation of equipment</td>
<td>135,000</td>
<td>135,000</td>
<td>137,000</td>
<td>2,000</td>
</tr>
<tr>
<td>Janitorial</td>
<td>90,000</td>
<td>90,000</td>
<td>105,000</td>
<td>15,000</td>
</tr>
<tr>
<td>Total</td>
<td>$4,265,000</td>
<td>$4,619,000</td>
<td>$4,636,000</td>
<td>$17,000</td>
</tr>
</tbody>
</table>
Max should only investigate significant departures from the budget. Only three of the differences are more than 5 percent of the revised budget amounts. Assuming he defines differences in excess of 5 percent to be significant, Max should investigate supervisory salaries, utilities (which is actually less than the revised budget), and janitorial costs.

P6. a. In addition to prior period profit and loss, a senior manager would like to see forecasts of profit and loss for the next 12 months, forecasts of site traffic, and forecasts of individual product line sales (e.g., soccer related sales, baseball related sales, etc.)

b. For external reporting purposes, GAAP requires that employee training and advertising be expensed. However, these expenditures generally increase the value of the firm and, for internal reporting purposes, the company may want to track related intangible assets. Intangible assets result if training increases the future efficiency of employees and if advertising increases the value of the company’s brand name.

c. Information in the income statement is not sufficiently detailed for management’s needs. Managers need to know sales and cost of individual products (e.g., model 2500 baseball glove), and sales and costs of product lines (e.g., sales of baseball products such as gloves, bats, balls, etc.). Managers may also want to know contract services and fees by category (e.g., tech support versus secretarial support) and depreciation of individual pieces of equipment.

d. Nonmonetary measures might include traffic (number of hits to the Web site), percent of visits to the Web site that result in sales, and average delivery time.

e. Management may be reluctant to present this information if it could be used by competitors. For example, if the company has an unusually high percent of visits that result in sales, competitors may decide to have similar Web site design or functionality.
P7.  a. Managers may focus (too much) on new customers and ignore current customers who account for most of the company’s sales.

b. Managers could decrease cost of goods sold by overproducing (i.e., producing more than needed for current sales and reasonable inventory) in an effort to decrease unit cost and cost of sales. However, this would result in an inventory buildup and excess inventory holding costs.

c. Managers may be able to decrease selling and administrative expense in the short-run by cutting the number of employees. However, this may hurt employee morale and customer service. If that is the case, it may, in the long run, hurt company profitability.

P8.  a. Incremental revenue will be $360 ($120 \times 3).

b. Incremental costs would include, for example, the cost of shampoo, the cost of cleaning the room, and the cost of cleaning towels and bedding.

c. Most likely, the incremental revenue will exceed the incremental costs, which are relatively low (e.g., shampoo is inexpensive and cleaning personnel are paid fairly low wages).