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

3. This question asks students to identify three differences between financial and managerial accounting. In the text, five differences are noted:

    a) Managerial accounting is directed at internal rather than external users of accounting information.

    b) Managerial accounting may deviate from generally accepted accounting principles (GAAP).

    c) Managerial accounting may present more detailed information.

    d) Managerial accounting may present more nonmonetary information.

    e) Managerial accounting places more emphasis on the future.

4. 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.

5. Total variable costs change in proportion to business activity while total fixed costs do not change.

6. 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.

7. 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.

8. "You get what you measure!" suggests that managers' behaviors are affected by performance measures.

9. 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.

10. 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. [LO 6]. 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. [LO 5]. 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 copier is sunk and will not change. Therefore, it is irrelevant to Rachel's decision.

E3. [LO 7]. Boeing uses a system called Supplier Network Technical Interchange (SNET-TDI) to securely transmit parts information to parts suppliers and design partners. One of the benefits of this system is reducing the amount of time in the parts order/delivery process.

E4. [LO 8]. 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.

E5. [LO 2]. 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.

E6. [LO 3]. "c" is false.

E7. [LO 3]. Deidre 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 ($400,000) is 67% of sales ($600,000). Actual cost of sales ($425,000) is 61% of actual sales ($700,000). Thus, while cost of sales has increased, it has not increased disproportionate to the increase in sales.

E8. [LO 1, 4]. Managerial accounting focuses on accounting information for internal decision-making. This focus differs from financial accounting in a number of ways. For example managerial accounting: 1) focuses on internal users, 2) can deviate from generally accepted accounting principles (GAAP), 3) presents more detailed information, 4) presents more nonmonetary information, and 5) places emphasis on the future.

E9. [LO 4]. 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.

E10. [LO 5].

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

E11. [LO 5].

a. variable
b. variable
c. fixed
d. fixed
e. variable

E12. [LO 5]. 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).

E13. [LO 5, 6]. Takesha should not consider how much he paid for the old machine because that is a sunk cost. He should consider the value of the old machine in the used lab machine market—an incremental cash inflow equal to the market value of the old machine that will result if he buys a new lab machine.

E14. [LO 5].

Incremental revenue per day		$2,500
Less incremental costs:		
Labor	$700	
Parts	500	
Transportation	100	
Office staff	200	1,500
Net		$1,000

Opportunity cost = $1,000 per day × 52 days = $52,000

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).

E15. [LO 5]. If Zachary visits his friend, he will incur a $480 (16 hours × $30) opportunity cost.

E16. [LO 5, 6]. 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.

E17. [LO 6].

a. When a second shift is added, material costs, workers' salaries, and benefits are likely to increase.
b. Depreciation of the building will not increase when a second shift is added.

E18. [LO 6].

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.

E19. [LO 8]. The IMA's Statement of Ethical Professional Practice does not directly address this issue so students may take either side of this issue.

Shauna does have obligations: Students could argue that the practice of entertaining customers with lavish vacations is a type of bride that would violate the Competence standard (perform duties in accordance with laws and regulations) or the Integrity standard (refrain from engaging in any conduct that would prejudice carrying out duties ethically).

Shauna does not have obligations: Students could argue that the practice of entertaining customers is not against the law and does not reduce one's ability to carry out duties ethically.

E20. [LO 9]. Responses will vary. Examples of Controller duties are as follows: Cost accounting, maintain GAAP, financial planning, budgeting, variance analysis, advisor to senior leadership. Examples of skills are as follows: BA in Accounting, CPA, 5-10 years accounting experience, 5 years management experience, excellent written and verbal communication.

E21. Student answers will vary.

PROBLEMS

P1. [LO 2, 5].

a.

Santiago's Salsa
Budgeted Production Costs
May 2011

	30,000
Production	**Jars of Salsa**
Ingredient cost	$24,000
Labor cost	14,400
Rent	5,000
Depreciation	6,000
Other	1,000
Total	$50,400

b. With a wage rate of $20, 720 hours ($14,400 ÷ $20) will be needed in May. In April, only 600 hours were needed ($12,000 ÷ $20). Thus, 120 additional hours will be needed in May. The company can plan on hiring a part-time worker in May (approximately 30 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 $1.76 ($44,000 ÷ 25,000 units). The cost per unit in May is anticipated to be only $1.68 ($50,400 ÷ 30,000 units). Unit cost declines because some costs are fixed and do not increase with increases in volume.

P2. [LO 5, 6].

a. The variable costs are $1.28 per jar of salsa as follows:

	25,000
Production	**Jars of Salsa**
Ingredient cost	$20,000
Labor cost	12,000
Total	$32,000

$32,000 ÷ 25,000 jars of salsa = $1.28 per jar of salsa.

Thus, the incremental cost of producing an extra 50,000 jars of salsa is $64,000 (i.e., $1.28 × 50,000).

b. The incremental revenue associated with a price reduction of $0.40 is $100,000 as follows:

Original Revenue (325,000 × $5.00)	$1,625,000
Revenue with price change (375,000 × $4.60)	1,725,000
Incremental revenue associated with price change	$ 100,000

c. Yes, the price should be lowered since the incremental cost of this action ($64,000 in part a) is less than the incremental revenue ($100,000 in part b).

P3. [LO 2, 5].

Sales Department
Budgeted Costs, 2008
(Assuming Sales of $13,000,000)

Salaries (fixed)	$500,000
Commissions (variable)	195,000
Advertising (fixed)	120,000
Charge for office space (fixed)	2,000
Office supplies & forms (variable)	2,600
Total	$819,600

P4. [LO 3].

a. Sales increased by 12.5% ($75,000 ÷ $600,000), while cost of merchandise increased by 25% and salaries increased by only 13.3%. Thus, the investigation should focus on cost of merchandise since a 25% increase is disproportionate to the increase in sales.

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

P5. [LO 3, 5].

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:

Units	60,000	65,000			
	Original Budget	Revised Budget	Actual Costs	Actual Minus Revised Budget	Percent of Revised Budget
Material (variable)	$3,200,000	$3,466,450	$3,500,000	$33,550	0.97%
Direct labor (variable)	2,300,000	2,491,450	2,500,000	8,550	0.34%
Supervisory salaries (fixed)	475,000	475,000	500,000	25,000	5.26%
Utilities (variable)	125,000	135,200	135,000	(200)	-0.15%
Machine maintenance (fixed)	350,000	350,000	380,000	30,000	8.57%
Depreciation of building (fixed)	90,000	90,000	90,000	-0-	0.00%
Depreciation of equipment (fixed)	250,000	250,000	255,000	5,000	2.00%
Janitorial (fixed)	220,000	220,000	235,000	15,000	6.82%
Total	$7,010,000	$7,478,100	$7,595,000	$116,900	1.56%*

*Some rounding error

Cyril 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, Cyril should investigate supervisory salaries, machine maintenance, and janitorial costs.

P6. [LO 4, 5, 6].

a. The information on the income statement, balance sheet and statement of cash flow is highly summarized for the entity as a whole. Linda needs product level information which is much more detailed.

b. Examples of nonfinancial measures might be: Web site visits, number of repeat customers, delivery time, customer satisfaction.

c. Linda could improve customer satisfaction ratings by offering discounts, improving delivery time, improving quality.

d. Examples of costs in Linda's operation are cost of contact lenses (variable), depreciation (fixed), salaries (fixed), shipping (variable).

P7. [LO 6].

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. [LO 5, 6].

a. Incremental revenue will be \$600 (\$150 $\times$ 4).

b. Incremental costs would include, for example, the cost of soap and 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 and soap are inexpensive and cleaning personnel are paid fairly low wages).

P9. [LO 8].

Answers based on Sears Holding Company Code of Conduct.

a. "Associates may not share pricing data among competing vendors."
b. "Associates may not use Company time or resources to support personal political activities."
c. "An associate should never accept from a vendor any personal services, promise of employment, *samples for personal use*, or money or its equivalent."
d. "Associates must not disclose proprietary or confidential information … includes strategies."

Case 1-1, LO 5, 8

LOCAL 635

Summary

Union is disputing “cost of meal” charges to hotel employees.

- Distinguishes among fixed, variable, sunk, and opportunity costs.
- Makes the point that there is no generally accepted meaning of the term “cost.”

Questions to ask students

1. What is the source of conflict between Local 635 and the Riverside Hotel?
2. What are some examples of variable, fixed, sunk, and opportunity costs in the context of the Local 635 case?
3. What do you think is the incremental cost of an employee meal?
4. I contend that it is possible that the incremental cost is more than $300. How is this possible?
5. How should the contract be worded to avoid similar problems in the future?

Discussion

I start this case by asking a student to explain the source of conflict between Local 635 and the Riverside Hotel. The student is likely to explain that while employees are focused on the incremental cost of a meal, management is focused on various fixed costs as well as the incremental costs. This leads to a major take away—**there is no generally accepted meaning of the term cost**. We know what’s meant by fixed cost, variable cost, opportunity cost, sunk cost, etc., but there is ambiguity as to what exactly *cost* means.

To begin working on the vocabulary of managerial accounting, I ask students for examples of variable, fixed, sunk, and opportunity costs in the context of the Local 635 case. The primary variable cost is the cost of food items (e.g., the cost of meat and salad ingredients). A fixed cost would be the depreciation on the oven (which is also a sunk cost). An opportunity cost would arise if a worker ate the last prime rib and the hotel lost a sale.

I then ask the class to estimate the incremental cost of an employee meal. Most students think it is less than $12. I then suggest that it is possible that the incremental cost is more than $300. When asked to explain how this is possible, students focus on opportunity costs. Suppose an employee eats the last prime rib just before a steady

customer, who always eats prime rib, comes into the restaurant. If this customer becomes disgruntled and never returns to the restaurant, the hotel could easily be out $300 or more in the next few months.

How should the contract be rewritten? Students generally recommend that meal subsidies be based on some percent of menu prices. For example, meals could be free as long as 70% of the total of menu prices is less than $12.

To wrap up, it should be noted that to ensure quality and customer satisfaction, kitchen workers must be motivated to do a good job. Thus, the hotel should be motivated to settle this dispute quickly in a way that seems fair to workers.

Case 1-2, LO 6

BOSWELL PLUMBING PRODUCTS

Summary

A senior manager is requesting information on the "cost" of a product.

- Makes the point that appropriate cost information depends on the manager.

Questions to ask students

1. What did the senior manager ask Nick and how did he reply?

2. Why is Nick's response "Why do you want to know?" appropriate from the standpoint of incremental analysis?

3. What cost information would be relevant to a decision to drop the product that would not be relevant to a decision to increase a production run by 100 units?

Discussion

A senior manager has asked Nick Somner to tell her the cost of the D45 valve. Nick replies, "Why do you want to know?" This response is appropriate from the standpoint of incremental analysis. The cost information that the senior manager needs to make a decision depends on the decision she is facing. Thus, "Why do you want to know?" is just Nick's way of asking "What decision are you facing?" If the senior manager is thinking of dropping the product, Nick should provide information on the incremental costs that will be saved if the product is dropped. If she is thinking of increasing a production run, Nick should provide the incremental cost associated with this action.

For example, if the product is dropped, the company may save the cost of setting up the production line, the cost of ordering materials, and the cost of supervision. None of these costs are relevant to a decision to increase a production run by 100 units since none of these costs will change with the addition of 100 units to a planned production run.