CHAPTER 21

Credit and Inventory Management

I. DEFINITIONS

TERMS OF SALE

a 1. The conditions under which a firm sells its goods and services for cash or credit are called the:
- a. terms of sale.
- b. credit analysis.
- c. collection policy.
- d. payables policy.
- e. collection float.

CREDIT ANALYSIS

b 2. The process of determining the likelihood that customers will not pay is called:
- a. the terms of sale.
- b. credit analysis.
- c. the collection policy.
- d. the payables policy.
- e. disbursement analysis.

COLLECTION POLICY

c 3. The procedures followed by a firm for ensuring payment on its accounts receivables are called its _____ policy.
- a. sales
- b. credit
- c. collection
- d. payables
- e. disbursements

CREDIT PERIOD

d 4. The length of time for which credit is granted to a firm's customers is called the:
- a. cash cycle.
- b. operating cycle.
- c. transactions period.
- d. credit period.
- e. disbursement period.

INVOICE

e 5. The bill for goods and services provided by the seller to the purchaser is called a(n):
- a. ledger statement.
- b. warranty.
- c. indenture.
- d. indemnity statement.
- e. invoice.

CASH DISCOUNT

a 6. A discount on the purchase price given to buyers as an inducement for prompt payment is called a(n) _____ discount.
- a. cash
- b. purchases
- c. original issue
- d. open market
- e. receivables

CREDIT INSTRUMENT

b 7. The credit instrument is the:
- a. legal document submitted to the IRS for every business transaction in the United States.
- b. basic evidence of indebtedness in a credit transaction.
- c. cost of obtaining financing on consumer products.
- d. means of payment chosen by the purchaser in a standard EOM transaction.
- e. receipt for payment issued by the firm on its cash disbursements.

CREDIT COST CURVE

c 8. A graphical representation of the sum of the carrying costs and the opportunity costs of a chosen credit policy is called the:
- a. credit statement.
- b. invoice.
- c. credit cost curve.
- d. terms of sale.
- e. economic order quantity (EOQ).

CAPTIVE FINANCE COMPANY

d 9. A wholly-owned subsidiary that handles the credit function for the parent firm is called a(n):
- a. controlled disbursements company.
- b. junior subsidiary firm.
- c. parallel payments firm.
- d. captive finance company.
- e. operating division.

FIVE Cs OF CREDIT

e 10. The basic factors to be evaluated in the credit evaluation process, the five Cs of credit, are:
- a. conditions, control, cessation, capital, and capacity.
- b. conditions, character, capital, control, and capacity.
- c. capital, collateral, control, character, and capacity.
- d. character, capacity, control, cessation, and collateral.
- e. character, capacity, capital, collateral, and conditions.

CREDIT SCORING

a 11. _____ is the process of quantifying the likelihood of default when granting consumer credit based on objective characteristics of the buyer.

a. Credit scoring
b. Credit rationalization
c. Receipts assessment
d. Payables risk analysis
e. Disbursement specialization

AGING SCHEDULE

b 12. A compilation of the firm's accounts receivable ordered by the length of time each account has remained unpaid is called a(n):

a. credit report.
b. aging schedule.
c. risk assessment report.
d. turnover delineation.
e. cost consolidation and consistency report.

ECONOMIC ORDER QUANTITY

c 13. The restocking quantity that minimizes the firm's total inventory cost is called the _____ quantity.

a. shortage cost
b. carrying cost
c. economic order
d. speculation
e. special-order

SAFETY STOCK

d 14. The minimum level of inventory a firm keeps on hand at any given time is called its:

a. net working capital in inventory.
b. shortage cost.
c. economic order quantity.
d. safety stock.
e. reorder point.

REORDER POINTS

e 15. The time at which a firm actually places an inventory order is called a(n):

a. economic order point.
b. safety stop.
c. shortage stop.
d. inventory release point.
e. reorder point.

MATERIALS REQUIREMENTS PLANNING

e 16. The procedures of a firm used to determine inventory levels for demand-dependent inventory types such as work-in-progress and raw materials are called:
- a. first-in, first-out methods.
- b. the Baumol model.
- c. net working capital planning.
- d. economic order planning.
- e. materials requirements planning.

JUST-IN-TIME INVENTORY

a 17. _____ is a system for managing demand-dependent inventories that minimizes the inventory holdings of a firm at any given time.
- a. Just-in-time inventory
- b. Turnover inventory
- c. Net working capital planning
- d. Inventory scoring
- e. Inventory ranking

II. CONCEPTS

CREDIT POLICY COMPONENTS

d 18. The terms of sale generally include all of the following EXCEPT the:
- a. discount period.
- b. credit period.
- c. cash discount.
- d. credit analysis.
- e. type of credit instrument.

CREDIT POLICY COMPONENTS

a 19. Which one of the following is the component of credit policy which addresses the determination of which customers are most apt to pay?
- a. credit analysis
- b. collection policy
- c. credit extension
- d. terms of sale
- e. consumer credit

CASH FLOWS FROM CREDIT POLICY

d 20. The period of time which extends from the day a credit sale is made until the bank credits a firm's account with the payment for that sale is known as the _____ period.
- a. float
- b. cash collection
- c. sales
- d. accounts receivable
- e. trade credit

CASH FLOWS FROM CREDIT POLICY

d 21. Which one of the following is the correct sequence of events related to the cash flows from a credit sale?

I. customer mails check
II. the bank credits the firm's account
III. credit sale is made
IV. firm deposits check in bank

a. I, II, III, IV
b. III, I, II, IV
c. II, III, IV, I
d. III, I, IV, II
e. III, II, I, IV

INVESTMENT IN RECEIVABLES

d 22. The total investment in receivables mainly depends on which two of the following?

I. the amount of credit sales
II. the total amount of cash sales
III. the cash discount amount
IV. the average collection period

a. I and III only
b. II and IV only
c. III and IV only
d. I and IV only
e. II and III only

TERMS OF SALE

d 23. Which one of the following statements is correct if you purchase an item with credit terms of 2/5, net 15?

a. If you pay within two days, you will receive a 5 percent discount.
b. If you pay within 2 to 5 days, you will receive a 15 percent discount.
c. If you do not pay within 5 days, you will be charged interest at a 15 percent annual rate.
d. If you pay within 5 days, you will receive a 2 percent discount.
e. You must pay the discounted amount within 15 days.

TERMS OF SALE

d 24. You are doing some comparison shopping. Store A offers credit terms of 1/10, net 20. Store B offers credit terms of 2/10, net 10 and Store C offers credit terms of 2/5, net 30. Given this information, which one of the following statements is correct?

a. Store A offers the best terms if you do not take the discount.
b. Store C offers the best terms if you do take the discount.
c. Store B offers the best terms if you do not take the discount.
d. Store B offers the best terms if you do take the discount.
e. Store A offers the best terms if you do take the discount.

CREDIT PERIOD

c 25. Which one of the following statements is correct concerning the credit period?

a. The credit period begins when the discount period ends.
b. The discount period is the length of time granted to a customer to pay their bill.
c. The credit period begins on the invoice date.
d. With terms of 2/10, net 20, the credit period is 10 days.
e. With EOM dating, all sales are assumed to have occurred on the 15^{th} of each month.

CREDIT PERIOD

c 26. Which one of the following statements is correct concerning the length of the credit period?

a. Credit periods are relatively constant across industries.
b. A seller’s credit period is not affected by the buyer’s inventory cycle.
c. The buyer’s operating cycle affects the length of a seller’s credit period.
d. A seller’s credit period should be longer than the buyer’s operating cycle.
e. A seller’s credit period should approximate the length of the buyer’s receivables period.

CREDIT PERIOD

e 27. Which one of the following factors tends to favor longer credit periods?

a. high consumer demand
b. lower priced merchandise
c. increased credit risk
d. merchandise with low collateral value
e. increased competition

CREDIT PERIOD

d 28. Which one of the following statements is correct concerning a factor that influences the length of the credit period?

a. Perishable items tend to have longer credit periods.
b. Items with low markups tend to have longer credit periods.
c. Smaller accounts tend to have longer credit periods.
d. One firm may offer different credit terms to different customers.
e. Newer products tend to have shorter credit periods.

DISCOUNTS

e 29. A cash discount of 2/10, net 25:

a. grants customers 25 days to pay after the discount period expires.
b. discourages customers from paying early.
c. grants free credit for a period of 25 days.
d. charges lower prices to customers who are granted credit.
e. grants customers an additional 15 days to pay if they forfeit the discount.

DISCOUNTS

d 30. Under credit terms of 2/10, net 25, customers should:

a. always pay on the 25^{th} day.
b. take the 10 percent discount and pay immediately.
c. take the discount and pay on the 2^{nd} day.
d. either take the discount or pay on the 25^{th} day.
e. both take the discount and pay on the 25^{th} day.

COST OF CREDIT

a 31. A 2/10, net 30 credit policy:

a. is an expensive form of short-term credit if a buyer foregoes the discount.
b. provides cheap financing to the buyer for 30 days.
c. is an inexpensive means of reducing the seller's collection period if everyone takes the discount.
d. tends to have little effect on the seller's collection period due to the high effective interest rate.
e. tends to increase a firm's investment in receivables as compared to a straight net 30 policy.

CREDIT INSTRUMENTS

d 32. Which one of the following credit instruments is commonly used in international commerce?

a. open account
b. sight draft
c. time draft
d. banker's acceptance
e. promissory note

CREDIT INSTRUMENTS

b 33. A conditional sales contract:

I. passes title to the goods sold to the buyer at the time the contract is signed.
II. normally calls for one lump sum payment on the contract payment date.
III. generally has a built in interest cost.
IV. is payable immediately upon receipt.

a. II only
b. III only
c. I and III only
d. II and IV only
e. III and IV only

CREDIT POLICY EFFECTS

e 34. Which of the following statements are correct concerning the effects of granting credit to customers?

I. Total revenues may increase if both the quantity sold and the price per unit increase when credit is granted.
II. A firm's cash cycle generally increases if credit is granted, all else equal.
III. Both the cost of default and the cost of discounts must be considered before granting credit.
IV. A firm may have to increase its borrowing if it decides to grant credit to its customers.

a. I, II, and III only
b. II, III, and IV only
c. I, III, and IV only
d. I, II, and IV only
e. I, II, III, and IV

CREDIT POLICY EFFECTS

e 35. Which of the following should be considered when you are trying to decide whether or not you should offer credit to customers?
- I. the default risk
- II. a cash discount
- III. your own firm's short-term financing cost
- IV. the delay in revenue collection
- a. I and III only
- b. II and IV only
- c. I, III, and IV only
- d. I, II, and IV only
- e. I, II, III, and IV

EVALUATING CREDIT POLICY

e 36. You are considering switching from an all cash credit policy to a net 30 credit policy. You do not expect the switch to affect either your sales quantity or your sales price. Ignoring interest and assuming that every month has 30 days, your net present value of the switch will be equal to:
- a. zero.
- b. your selling price per unit.
- c. your selling price per unit multiplied by -1.
- d. your selling price per unit multiplied by -30.
- e. your total monthly sales multiplied by -1.

OPTIMAL CREDIT POLICY

c 37. The optimal credit policy:
- a. is the one which minimizes the accounts receivable period.
- b. is an all-cash policy.
- c. is difficult to precisely determine.
- d. ignores opportunity costs.
- e. minimizes the carrying costs.

OPTIMAL CREDIT POLICY

d 38. When credit policy is at the optimal point, the:
- a. total costs of granting credit will be maximized.
- b. carrying costs of credit will be equal to zero.
- c. opportunity cost of credit will be equal to zero.
- d. carrying costs will equal the opportunity costs.
- e. total costs will equal the opportunity costs.

CREDIT ANALYSIS

b 39. If you extend credit to a one-time new customer you risk an amount equal to:
- a. the sales price of the item sold.
- b. the variable cost of the item sold.
- c. the fixed cost of the item sold.
- d. the profit margin on the item sold.
- e. zero.

CREDIT ANALYSIS

c 40. Which one of the following statements is correct?
- a. If the majority of your new customers become repeat customers then there is a strong argument against extending credit even if the default rate is low.
- b. A customer's past payment history is not indicative of their future payment history.
- c. A suggested policy for offering credit to new customers is to limit the amount of their initial credit purchase.
- d. The risk of issuing credit is the same for a new customer as it is for an existing customer.
- e. The recommended credit policy for new customers is to extend the maximum amount you are willing to ever extend to that customer as their initial credit limit.

CREDIT INFORMATION

e 41. Which of the following are commonly used methods of analyzing the creditworthiness of a potential customer?
- I. review their payment history with other firms
- II. review their credit report
- III. analyze their financial statements
- IV. ask your bank for assistance in acquiring credit information on the potential customer if they are a business firm
- a. I and III only
- b. II and IV only
- c. I and II only
- d. I, II, and III only
- e. I, II, III, and IV

FIVE Cs OF CREDIT

d 42. When evaluating the creditworthiness of an individual, the term character refers to the:
- a. nature of the cash flows of the customer's business.
- b. customer's financial resources.
- c. types of assets the customer wants to pledge as collateral.
- d. customer's willingness to pay his/her bills in a timely fashion.
- e. nature of the customer's line of work.

FIVE Cs OF CREDIT

b 43. The ability of a customer to meet their payment obligation out of their operating cash flows is referred to as their:
- a. character.
- b. capacity.
- c. collateral.
- d. conditions.
- e. capital.

FIVE Cs OF CREDIT

d 44. Which one of the five Cs of credit refers to the financial reserves of a customer?
- a. capacity
- b. character
- c. conditions
- d. capital
- e. collateral

COLLECTION POLICY

a 45. Which one of the following statements is correct?

a. An aging schedule helps identify which customers are the most delinquent.

b. The percentage of total receivables that fall within a certain time period on an aging schedule will remain constant over time even if the firm has seasonal sales.

c. Normally firms call their delinquent customers prior to sending them a past due letter.

d. A constant average collection period over a period of time is cause for concern.

e. It is common practice when a customer files bankruptcy to sell that customer's receivable at face value.

INVENTORY TYPES

d 46. Which one of the following inventory items is most likely the least liquid?

a. raw steel owned by a steel mill

b. plywood held in inventory by a home improvements retail outlet

c. tires held in inventory to be placed on new vehicles as they are assembled

d. a partially assembled drive train for a car

e. raw logs sitting in the yard of a lumber mill

INVENTORY TYPES

a 47. Which one of the following inventory items is most likely the most liquid?

a. raw sugar owned by a cereal manufacturer

b. completed wheel assemblies for train locomotives

c. metal cabinets for washing machines

d. customized spice mix sitting in the inventory of a soup company

e. the completed shell of a new home

INVENTORY COSTS

c 48. Which one of the following inventory-related costs is considered a shortage cost?

a. storage costs

b. insurance cost

c. cost of safety reserves

d. obsolescence cost

e. opportunity cost of capital used for inventory

INVENTORY MANAGEMENT TECHNIQUES

d 49. The ABC approach to inventory management is based on the concept that:

a. inventory should arrive just in time to be used.

b. the inventory period should be constant for all inventory items.

c. basic inventory items that are essential to production and also inexpensive should be ordered in small quantities only.

d. a small percentage of the inventory items probably represents a large percentage of the inventory cost.

e. one-third of a year's inventory need should be on hand, another third should be in the order process and the last third should not be ordered yet.

ECONOMIC ORDER QUANTITY (EOQ)

c 50. The economic order quantity model is designed to determine how much:
- a. total inventory a firm needs in any one year.
- b. total inventory costs will be for any one year.
- c. inventory should be purchased at a time.
- d. inventory will be sold per day.
- e. a firm loses in sales per day when an inventory item is depleted.

ECONOMIC ORDER QUANTITY (EOQ)

e 51. At the optimal order quantity size, the:
- a. total cost of holding inventory is fully offset by the restocking costs.
- b. carrying costs are equal to zero.
- c. restocking costs are equal to zero.
- d. total costs equal the carrying costs.
- e. carrying costs equal the restocking costs.

ECONOMIC ORDER QUANTITY (EOQ)

e 52. The economic order quantity model is designed to minimize:
- a. inventory costs.
- b. inventory obsolescence.
- c. the carrying costs of inventory.
- d. the costs of replenishing the inventory.
- e. the total costs of holding inventory.

DERIVED-DEMAND INVENTORY

d 53. Which one of the following items is most likely a derived-demand inventory item?
- a. dog food ready to be bagged and sold
- b. clothes on a rack in a retail store
- c. cars sitting in a lot ready to be shipped by the auto manufacturer to auto dealers
- d. auto glass held in inventory by an auto manufacturer
- e. corn harvested by a corn farmer

DERIVED-DEMAND INVENTORY

b 54. Inventory needs under a derived-demand inventory system are:
- a. primarily dependent upon the competitive demands placed on a firm’s suppliers.
- b. based on the anticipated finished goods level of inventory.
- c. based on minimizing the cost of restocking inventory.
- d. held constant over time.
- e. determined by a kanban system.

APPENDIX: CREDIT POLICY ANALYSIS

d 55. The incremental investment in receivables under the accounts receivable approach is equal to:
- a. $(P - v) \times Q'$.
- b. PQ'.
- c. $P \times (Q' - Q)$.
- d. $(P \times Q) + [v \times (Q' - Q)]$.
- e. $(P \times Q) \times (Q' - Q)$.

APPENDIX: CREDIT POLICY ANALYSIS

a 56. The accounts receivable approach supports the theory that:
- a. your risk of offering credit to a new customer is limited to your cost of the items sold.
- b. the best credit policy is an all-cash policy.
- c. the cost of offering credit to a new customer is the same as the cost of offering credit to an existing customer.
- d. foregoing cash discounts is a method of obtaining inexpensive short-term financing.
- e. the default risk of a credit policy is the same as the default risk under an all cash-policy if your customers remain the same.

III. PROBLEMS

ACCOUNTS RECEIVABLE BALANCE

c 57. On average your firm sells $31,250 of items on credit each day. Your average inventory period is 21 days and your operating cycle is 43 days. What is your average accounts receivable balance?
- a. $619,000
- b. $656,250
- c. $687,500
- d. $1,275,250
- e. $1,343,750

ACCOUNTS RECEIVABLE DISCOUNTS

e 58. You just purchased $13,400 of goods from your supplier with credit terms of 2/5, net 20. What is the discounted price?
- a. $10,720
- b. $12,475
- c. $12,730
- d. $13,065
- e. $13,132

ACCOUNTS RECEIVABLE DISCOUNTS

e 59. Today, May 4th, you bought $9,500 worth of merchandise from your supplier. The credit terms are 2/7, net 25. By what day do you have to make your payment to receive the discount?
- a. May 6th
- b. May 8th
- c. May 9th
- d. May 10th
- e. May 11th

ACCOUNTS RECEIVABLE DISCOUNTS

b 60. Your supplier grants you credit terms of 2/15, net 45. What is the effective annual rate of the discount if you purchase $1,200 worth of merchandise?
- a. 26.3 percent
- b. 27.9 percent
- c. 28.8 percent
- d. 29.6 percent
- e. 33.3 percent

CREDIT POLICY SWITCH

a 61. Your firm currently sells 120 units a month at a price of $250 a unit. You think you can increase your sales by an additional 40 units if you switch to a net 30 credit policy. The monthly interest rate is .6 percent and your variable cost per unit is $170. What is the incremental cash inflow from the proposed credit policy switch?

a. $3,200
b. $4,080
c. $5,333
d. $6,800
e. $10,000

CREDIT POLICY SWITCH

d 62. Your firm currently sells 130 units a month at a price of $210 a unit. You think you can increase your sales by an additional 50 units if you switch to a net 30 credit policy. The monthly interest rate is .6 percent and your variable cost per unit is $125. What is the net present value of the proposed credit policy switch?

a. $651,989
b. $652,008
c. $666,667
d. $674,783
e. $675,020

CREDIT POLICY SWITCH

c 63. Currently, your firm sells 280 units a month at a price of $125 a unit. You think you can increase your sales by an additional 70 units if you switch to a net 30 credit policy. The monthly interest rate is .5 percent and your variable cost per unit is $80. What is the net present value of the proposed credit policy switch?

a. $574,237
b. $575,000
c. $589,400
d. $590,313
e. $592,600

CREDIT POLICY SWITCH

b 64. Currently, your firm sells 280 units a month at a price of $125 a unit. You think you can increase your sales by an additional 70 units if you switch to a net 30 credit policy. The monthly interest rate is .5 percent and your variable cost per unit is $80. What is the incremental cash inflow of the proposed credit policy switch?

a. $3,078
b. $3,150
c. $3,334
d. $3,450
e. $3,610

SWITCH BREAK-EVEN POINT

a 65. You currently sell a product with a variable cost per unit of $21 and a unit selling price of $39. At the present time you only sell on a cash basis and have monthly sales of 250 units. The monthly interest rate is 1 percent. You are considering switching to a net 30 credit policy. What is the switch break-even point?

a. 255 units
b. 258 units
c. 259 units
d. 260 units
e. 262 units

SWITCH BREAK-EVEN POINT

d 66. Altoa, Inc. currently sells 3,100 units a month for total monthly sales of $124,000. The company is considering replacing its current cash only credit policy with a net 30 policy. The variable cost per unit is $22 and the monthly interest rate is 1.2 percent. What is the switch break-even level of sales?

a. 3,087 units
b. 3,106 units
c. 3,120 units
d. 3,184 units
e. 3,667 units

SWITCH BREAK-EVEN POINT

d 67. Balboa Enterprises currently sells 13,650 units a month for total monthly sales of $272,863.50. The company is considering replacing its current cash only credit policy with a net 30 policy. The variable cost per unit is $11.30 and the monthly interest rate is 1 percent. What is the switch break-even level of sales?

a. 13,492 units
b. 13,525 units
c. 13,600 units
d. 13,968 units
e. 14,069 units

ONE-TIME SALE

c 68. You have the opportunity to make a one-time sale if you will give a new customer 30 days to pay. You suspect that there is a 40 percent chance that this person will never pay you. The sales price of the item the customer wants to buy is $249. Your variable cost on that item is $174 and your monthly interest rate is 1.5 percent. Should you grant credit to this customer? Why or why not?

a. yes; because the net present value of the potential sale is $75
b. yes; because the net present value of the potential sale is $249
c. no; because the net present value of the potential sale is -$27
d. no; because the net present value of the potential sale is -$174
e. it doesn’t matter; because the NPV of the potential sale is zero

ONE-TIME SALE

c 69. You are considering setting up a booth at a street fair in a town not far from where you are located. Any sale you make will be a one-time sale. There is only a 50 percent chance that you will collect your money on a credit sale. The product you want to sell has a variable cost of $3.90 and a sales price of $5.00. The monthly interest rate is 1.5 percent. Should you offer people 30 days to pay? Why or why not?

a. yes; because you will earn $.98 on every credit sale you make
b. yes; because you will earn $1.44 on every credit sale you make
c. no; because the net present value of the potential sale is -$1.44
d. no; because the net present value of the potential sale is -$.98
e. it doesn't matter; because the present value of the potential sale is $0

REPEAT SALE

d 70. You are trying to attract new customers that you feel could become repeat customers. The average price of the items you sell is $49 with a $35 variable cost. Your monthly interest rate is 1.2 percent. Your experience tells you that 5 percent of these customers will never pay their bill. What would be the net present value of this decision?

a. $979
b. $989
c. $1,023
d. $1,073
e. $1,108

REPEAT SALE

b 71. Mike is new in town and has asked to establish credit with your firm. He would like to buy some lawn equipment today at a cost of $4,999. Your variable cost for that equipment is $3,850 and your monthly interest rate is 1.5 percent. You feel that Mike could become a regular customer if you grant him 30 days credit. You also feel that the probability of default is only 5 percent. What would be the net present value of this decision?

a. $66,667
b. $68,920
c. $69,002
d. $69,234
e. $69,399

ECONOMIC ORDER QUANTITY (EOQ)

e 72. You sell 13,000 units of an item each year. The carrying cost per unit is $.60 and the fixed costs per order are $55. What is the economic order quantity?

a. 1,379 units
b. 1,404 units
c. 1,418 units
d. 1,527 units
e. 1,544 units

ECONOMIC ORDER QUANTITY (EOQ)

a 73. One popular child's toy sells for $39.99. Your store consistently sells 4,500 units of this toy year after year. The fixed costs to order more of this toy are $65 and the carrying costs are $1.45 per toy. What is the economic order quantity?

a. 635 units
b. 648 units
c. 653 units
d. 667 units
e. 691 untis

ECONOMIC ORDER QUANTITY (EOQ)

b 74. One of the primary products your firm offers sells for $24.99 a unit. The variable cost per unit is $14.42 and the carrying cost per unit is $.74. You sell 7,320 of these units each year. The fixed cost to order this item is $50. What is the economic order quantity?

a. 982 units
b. 995 units
c. 1,013 units
d. 1,069 units
e. 1,111 units

ECONOMIC ORDER QUANTITY (EOQ)

d 75. Each year you sell 3,000 units of a product at a price of $29.99 each. The variable cost per unit is $18.72 and the carrying cost per unit is $1.43. You have been buying 250 units at a time. Your fixed cost of ordering is $30. What is the economic order quantity?

a. 329 units
b. 338 units
c. 342 units
d. 355 units
e. 367 units

APPENDIX: ONE-SHOT APPROACH

b 76. Your firm currently has a cash sales only policy. Under this policy, you sell 340 units a month at a price of $125 a unit. Your variable cost per unit is $82 and your carrying cost per unit is $2.20. The monthly interest rate is 1.25 percent. You think that you can increase your sales to 400 units a month if you institute a net 30 credit policy. What is the net present value of the switch using the one-shot approach?

a. $154,260
b. $158,980
c. $161,230
d. $161,870
e. $162,020

APPENDIX: ONE-SHOT APPROACH

a 77. Under your current cash sales only policy you sell 280 units a month at a price of $35. Your variable cost per unit is $21 and your monthly interest rate is 1 percent. Based on a recent survey, you believe that you can sell an additional 85 units per month if you offer a net 30 credit policy. What is the net present value of the switch using the one-shot approach?

a. $107,415
b. $108,236
c. $110,050
d. $113,333
e. $115,647

APPENDIX: ACCOUNTS RECEIVABLE APPROACH

c 78. Under your current cash sales only policy you sell 140 units a month for a total sales value of $9,660. Your variable cost per unit is $48 and your monthly interest rate is 1.3 percent. Based on a recent survey, you believe that you can sell an additional 25 units per month if you offer a net 30 credit policy. What is the net present value of the proposed switch using the accounts receivable approach?

a. $28,417
b. $28,607
c. $29,525
d. $30,008
e. $30,462

APPENDIX: ACCOUNTS RECEIVALBE APPROACH

d 79. You are currently selling 80 units a month at a price of $220 a unit. Your variable cost of each unit is $160. If you switch from your current cash sales only policy to a net 30 policy you think your sales will increase to a total of 110 units per month. Your monthly interest rate is 1 percent. What is the net present value of this proposed switch using the accounts receivable approach?

a. $151,500
b. $153,900
c. $154,200
d. $157,600
e. $158,300

APPENDIX: DISCOUNTS AND DEFAULT RISK

d 80. Your current sales consist of 40 units per month at a price of $125 a unit. You are weighing the pros and cons of switching to a net 30 credit policy from your current cash only policy. If you decide to switch your credit policy you also plan to increase the sales price to $139 a unit. If you make the switch you do not expect your total monthly sales to change but you do expect a 1 percent default rate. The monthly interest rate is 1.5 percent. What is the net present value of the proposed credit policy switch?

a. $26,845
b. $27,002
c. $28,778
d. $28,619
e. $28,909

APPENDIX: DISCOUNTS AND DEFAULT RISK

d 81. Your current sales consist of 40 units per month at a price of $125 a unit. You are weighing the pros and cons of switching to a net 30 credit policy from your current cash only policy. If you decide to switch your credit policy you also plan to increase the sales price to $139 a unit. The monthly interest rate is 1.5 percent. What is the break-even default rate of the proposed switch?

a. 8.25 percent
b. 8.42 percent
c. 8.67 percent
d. 8.72 percent
e. 9.06 percent

IV. ESSAYS

LENGTH OF CREDIT PERIOD

82. Why is the buyer's operating cycle considered to be an appropriate upper limit for the credit period? (Be sure to define what the operating cycle is.) Wouldn't the buyer's inventory period be a better target?

The operating cycle is the sum of the inventory and accounts receivable periods. Financing longer than this means the seller is financing not only the buyer's inventory needs, but also other parts of the buyer's business. The inventory period might be a better target as an upper limit since it is questionable whether or not the seller should be financing the buyer's receivables.

ETHICS AND THE CREDIT PERIOD

83. Consider the case where a large firm tells its suppliers that even if they require terms of net 30, the large firm is going to take 60 days to pay. The large firm essentially tells its suppliers to take the terms or lose the account. Is this ethical? Would this impact small suppliers more than large suppliers? Explain.

This question can lead to a lively discussion about the ethics of abusing the credit period. Some or even most will argue that it is unethical for the large firm to exercise its will against its suppliers. Most would argue that a supplier that is a relatively large firm will better be able to deal with the change than a small firm would. If a supplier is small, it could be that the account is a significant proportion of total sales and that the firm cannot afford to lose the sale. In reality however, this practice occurs fairly frequently.

DISCOUNTS

84. Why might firms forego discounts even though it is costly to do so? What steps might a firm pursue to be able to take these discounts?

Firms will forego discounts when they have inadequate cash flow to take them. It would be difficult to argue that this type of financing, given the typically high cost of foregoing the discount, would be cheaper than other sources available to the firm. However, it might be more desirable than raising cash, say through secured inventory financing or factoring receivables. As far as correcting the problem, any of the cash and liquidity management policies discussed earlier in the text would help the situation if the firm is able to enhance its liquidity and cash flow.

LIBERAL CREDIT TERMS

85. All else the same, it is likely that firms with (1) excess capacity, (2) low variable costs, and (3) repeat customers will extend credit more liberally than others. Why?

    Firms with excess capacity will likely extend credit more liberally as a means to increase sales and capacity usage. Firms with low variable costs extend credit more liberally because, from the NPV of switching, the PV of the future incremental cash flows increase as variable costs per unit fall, while the cost of the switch declines as variable costs fall. Finally, firms with repeat customers gain familiarity with their customers' character and credit needs, thereby facilitating more liberal credit terms.