Economics

Chapter 7: Business Operations

Section 1: About Business Firms
Why Do Business Firms Exist?

A business firm is an __________________________ that uses __________________________ to produce __________________________ and __________________________ that are ________________________________ to consumers, other firms, or the government. Most businesses exist because a group of people working __________________________ can be more effective than a group of people working __________________________.

Three Types of Firms

1) SOLE PROPRIETORSHIP
   • A sole proprietorship is a business that is owned by __________ individual.
   • This owner makes all the business __________________________, receives all the __________________________ or __________________________ of the firm, and is __________________________ responsible for the debts of the firm.
   • About __________ million proprietorships operate in the United States.
     • Advantages
       o Easy to __________________________ and to __________________________
       o All decision-making power resides with the sole proprietor
       o The profits are __________________________ only once
     • Disadvantages
       o __________________________ - The sole proprietor’s personal assets may be used to pay off the debts of the firm
       o There are challenges raising funds for __________________________
       o Usually ends with the __________________________ or __________________________ of the owner

2) PARTNERSHIP
   • A partnership is a business that is owned by two or more __________________________, called partners.
   • The partners __________________________ profits and are legally responsible for debts.
   • About __________ million partnerships operate in the United States.
     • Advantages
       o __________________________ - If one partner has a talent that goes well with the other partner’s talent, the partners can separate the responsibilities of the business.
       o Taxes are assessed only at the __________________________ level.
     • Disadvantages
       o Unlimited liability - If one partner incurs a substantial business-related debt, __________________________ partners are responsible for the debt.
       o One exception is the __________________________ partnerships.
         Limited partners do not __________________________ in the management of the firm or enter into contracts so they are only liable for the amount he or she __________________________ in the firm.
       o __________________________ making can be complicated in a partnership. Each partner may want to take different risks or operate the business in a different way.

3) CORPORATION
   • The corporation is a business type familiar to most people. A corporation is a __________________________ that can conduct business in its own name in the same way that an individual does.
   • A corporation is owned by its __________________________. Stockholders are people who buy shares of stock in a corporation.
   • A share of stock represents a claim on the __________________________ of a corporation. Assets are anything of __________________________ to which the firm has a legal claim.
   • All corporations have a board of directors. The board of directors decides corporate __________________________ and __________________________, and much more.
All firms can raise money by ____________ from banks and other lending institutions. Corporations can also raise money from the ________ of bonds, of statements of debt, and of stocks. If you buy a bond from a corporation, you are a ____________. If you buy stock, you are an ________________.

About _____ million corporations operate in the United States and account for about _____% of all business receipts.

- **Advantages**
  - **Limited liability** - An owner can lose _______ the amount that she or he has invested in the firm. Suppose a person spends $100 purchasing stock in a business firm. She is at risk of losing only her $100 investment, even if the firm performs poorly and accumulates millions in debt. Any _______ accumulated by a corporation are the sole responsibility of the _________________.
  - The corporation will continue to ___________ even if one or more owners sell their shares or die. A corporation is a legal entity, and its existence does not depend on the existence of its owners.
  - Corporations are able to raise large amounts of ________________ by selling more stock, providing ________________ for expansion.

- **Disadvantages**
  - ________________ - First, the corporation is taxed on its ____________, Later, when the corporation distributes profits to stockholders in the form of ____________, the stockholders are taxed on their dividends.
  - Corporations are more ________________ to set up than proprietorships or partnerships.

<table>
<thead>
<tr>
<th>Type of business firm</th>
<th>Examples</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sole proprietorship</td>
<td>Local barbershop, many restaurants, family farm, carpet cleaning service</td>
<td>Easy to form and to dissolve, all decision-making power resides with the sole proprietor, profit is taxed only once</td>
<td>Proprietor faces unlimited liability, limited ability to raise funds for business expansion, usually ends with retirement or death of proprietor</td>
</tr>
<tr>
<td>Partnership</td>
<td>Some medical offices, some law offices, some advertising agencies</td>
<td>Benefits of specialization can be realized, profit is taxed only once</td>
<td>Partners face unlimited liability (one partner can incur a debt and all partners are legally responsible for payment of the debt), decision making can be complex and frustrating</td>
</tr>
<tr>
<td>Corporation</td>
<td>Hewlett-Packard, Intel, Walt Disney</td>
<td>Owners (stockholders) have limited liability, corporation continues if owners sell their shares of stock or die, usually able to raise large sums of money</td>
<td>Double taxation, corporations are complicated to set up</td>
</tr>
</tbody>
</table>
A Fourth Type of Business Firm: The Franchise

- A franchise is a _____________ that lets a person or a group use a firm’s name and sell the firm’s goods in ______________ for certain payments and requirements. A famous example is the franchises of the McDonald's Corporation.
- The entity that _____________ the franchise is the franchiser. In this case, McDonald’s Corporation is the franchiser.
- The person or group that _____________ the franchise is the franchisee.
- A franchise begins when a franchisee pays an initial _____________ to use the name and sell the goods (in 2005, the initial fee for a McDonald’s franchise was $45,000). The franchisee will pay a royalty, or a percentage of _____________ to the franchiser (in 2005, the McDonald’s royalty rate was 12.5%), and follow guidelines established by the franchiser. In return, the franchisee receives _____________ in training employees, advertising, and other benefits.

  - **Advantages**
    - Use of national _____________ helps all franchises.
    - Less ________ (the failure rate is about ___ times higher for independently owned businesses than for franchises).
  - **Disadvantage**
    - Sometimes the financial and training support is not _____________ for success.
    - The franchisee may not provide the _____________ of service and product that the franchiser expects.

What Is the Ethical and Social Responsibility of Business? (Differing Points of View)

- Ralph Nader, a consumer advocate, thinks that businesses have ______________ and ______ responsibilities. He also believes that businesses should treat their ________ well. And he believes that businesses should _____________ funds to meet social needs in the community.
- Milton Friedman, winner of the 1976 Nobel Prize in Economics, believes that a business has only _________ social responsibility: to use its resources and increase its profits without ________ or _____________. He believes that a business should earn as much as possible by selling the public something it wants to buy. Any other use of resources is outside the business’s social responsibility.
Applying the Principles  
Chapter 7, Section 1 - About Business Firms

Identify the type of firm (sole proprietorship, partnership or corporation) that best answers the question.

1. Which type of firm has limited liability? ___________________________________________

2. Which type of firm is likely to have the greatest number of owners? ___________________________

3. Which types of firms have unlimited liability? __________________________ and __________________________

4. Which type of firm suffers from double taxation? __________________________

5. Which type of firm has only one owner? ______________________________________

6. Which type of firm is likely to have the shortest life span? __________________________

7. Which type of firm is the easiest to form and to dissolve? __________________________

8. Which type of firm is owned by stockholders? __________________________

9. In which type of firm does a board of directors make the important decisions? __________________________

10. In which type of firm is decision making often the easiest? __________________________

11. Barbershops and restaurants are examples of which type of firm? __________________________

12. Law firms and medical offices are examples of which type of firm? __________________________

13. Wal-Mart, Best Buy and General Electric are examples of which type of firm? __________________________

14. Which type of firm accounts for the greatest number of firms? __________________________

15. Which type of firm accounts for the greatest number of receipts (sales)? __________________________

Double taxation is considered to be a disadvantage of corporations. Write your answers to the next three questions in the space provided.

16. Explain double taxation.

17. Is it fair to tax corporate profits twice? Why or why not?
18. Some people argue that either the corporate income tax or the income tax on dividends should be reduced or eliminated. What might be some of the effects of reducing or eliminating one or both of these taxes? (Hint: Consider the circular flow diagram of economic activity in the U.S. economy on page 60 of your textbook.)

Corporations, like all firms, can raise money by borrowing from banks and other lending institutions. However, corporations also can raise money by selling bonds or issuing additional shares of stock. Answer the following questions by identifying the type of financing (stock or bond) that best answers the question.

19. In which form of corporate financing is the investor a lender to the corporation?  

20. In which form of corporate financing is the investor also an owner?  

21. Which form of corporate financing involves more risk for the investor?  

22. Which form of corporate financing involves the potential for greater returns for the investor?  

Franchises have become more common in the last 25 years. What are the advantages and disadvantages of buying a franchise?

23. Advantages:  

24. Disadvantages:  

Ethical and Social Responsibilities of Business

25. Do you agree or disagree with Milton Friedman’s opposition to businesses donating funds to charitable organizations? Answer in the space below and give reasons for your answer.
Chapter 7, Section 2: Costs

Five types of costs are associated with the production of goods: fixed cost, variable cost, total cost, average total cost, and marginal cost.

- A __________ cost is a cost, or expense, that is the same no matter how many units of a good are produced. An example is ________________ ____________.

- A __________ cost changes with the number of units of a good produced.

- Total cost is the ______ of fixed cost plus variable cost: Total cost = Fixed cost + Variable cost.

- To determine how much you need to _______ in order to make a profit, it helps to understand the concept of average total cost. The average total cost is the ___________ ___________ divided by the __________ of output: Average total cost = Total cost / Quantity.

- One concept is very important when deciding how much of a good to make—marginal cost.

- Marginal cost is the cost of producing an __________ unit of a good—that is, the change in __________ ___________ that results from producing an additional _______ of output.

<table>
<thead>
<tr>
<th>Type of cost</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed cost (FC)</td>
<td>Cost, or expense, that does not change as output changes</td>
<td>A firm’s monthly rent is a fixed cost.</td>
</tr>
<tr>
<td>Variable cost (VC)</td>
<td>Cost, or expense, that changes as output changes</td>
<td>The amount a firm spends on employees’ wages is usually a variable cost.</td>
</tr>
<tr>
<td>Total cost (TC)</td>
<td>Fixed costs plus variable costs (FC + VC)</td>
<td>If fixed costs equal $2,000, and variable costs equal $4,000, then total cost equals $6,000.</td>
</tr>
<tr>
<td>Average total cost (ATC)</td>
<td>Total cost divided by quantity of output ( \frac{TC}{Q} )</td>
<td>If total cost equals $6,000, and quantity equals 1,000 units, then average total cost equals $6.</td>
</tr>
<tr>
<td>Marginal cost (MC)</td>
<td>Change in total cost divided by change in quantity of output ( \frac{\Delta TC}{\Delta Q} )</td>
<td>If total cost equals $6,000 when quantity equals 1,000 units, and total cost equals $6,008 when quantity equals 1,001 units, then marginal cost equals $8.</td>
</tr>
</tbody>
</table>
Chapter 7, Section 3: Revenue and Its Applications

Total Revenue and Marginal Revenue
- Total revenue is defined as the __________ of a good times the __________ sold.
- Marginal revenue is defined as the revenue from selling an __________ unit of a good—that is, the change in total revenue that results from selling an additional unit of output.

Firms Have to Answer Questions

How Much Will a Firm Produce?
A firm should continue to produce as long as marginal revenue is __________ than marginal cost (MR > MC). In fact, some economists think that a firm should continue to produce additional units until marginal revenue is __________ to marginal cost.

What Price Should We Charge? (What Every Firm Wants: To Maximize Profit)
Maximizing profit is the same as getting the __________ possible difference between total __________ and total __________. (Profit is the difference between total revenue and total cost.)

Computing Profit or Loss
A firm computes its profits and losses using three formulas.
- Total cost = Fixed cost + Variable cost.
- Total revenue = Price x Quantity of good sold.
- Profit (or loss) = Total revenue - Total cost.

The Law of Diminishing Returns
- The law of diminishing returns states that if __________ units of one resource are added to another resource in fixed supply, eventually the additional output will __________.
- Suppose a firm wants to add __________. As long as the additional output produced by the additional workers multiplied by the selling price of the good is __________ than the wage paid to the workers, it is a good idea to hire the additional employees.

<table>
<thead>
<tr>
<th>(1) Workers</th>
<th>(2) Quantity of output produced each day</th>
<th>(3) Additional output produced (each day) as a result of hiring an additional worker</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0 units</td>
<td>0 units</td>
</tr>
<tr>
<td>1</td>
<td>5</td>
<td>5 (5 - 0 = 5)</td>
</tr>
<tr>
<td>2</td>
<td>11</td>
<td>6 (11 - 5 = 6)</td>
</tr>
<tr>
<td>3</td>
<td>18</td>
<td>7 (18 - 11 = 7)</td>
</tr>
<tr>
<td>4</td>
<td>23</td>
<td>5 (23 - 18 = 5)</td>
</tr>
<tr>
<td>5</td>
<td>26</td>
<td>3 (26 - 23 = 3)</td>
</tr>
</tbody>
</table>
**Applying the Principles**  
*Chapter 7, Sections 2 and 3 - Costs and Revenue*

Fill in the blanks to be sure you understand some important economic terms.

26. A fixed cost ____________________ no matter how many units of a good are produced.
27. An example of a fixed cost is ____________________.
28. A variable cost ____________________ with the number of units of a good produced.
29. An example of a variable cost is ____________________.
30. In economics, the word ____________________ means additional, so ____________________ is the cost of producing an additional unit of a good and ____________________ is the revenue from selling an additional unit of a good.
31. Every firm wants to maximize ____________________.

**Complete the cost and revenue formulas below.**

32. Total cost (TC) = ____________________
33. Average total cost (ATC) = ____________________
34. Marginal cost (MC) = ____________________
35. Total revenue (TR) = ____________________
36. Marginal revenue (MR) = ____________________
37. Profit (or loss) = ____________________

Use the formulas above to fill in the missing numbers in the following table. *For this firm, marginal revenue is the same as price,* (10 points for the chart being complete)

<table>
<thead>
<tr>
<th>Gadgets/hour</th>
<th>Fixed Cost</th>
<th>Variable Cost</th>
<th>Total Cost</th>
<th>Marginal Cost</th>
<th>Marginal Revenue</th>
<th>Total Revenue</th>
<th>Profit or (Loss)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>$24</td>
<td>$0</td>
<td>$24</td>
<td>$0</td>
<td>$24</td>
<td>$0</td>
<td>$(24)</td>
</tr>
<tr>
<td>1</td>
<td>$24</td>
<td>$12</td>
<td>$32</td>
<td>$8</td>
<td>$24</td>
<td>$24</td>
<td>$12</td>
</tr>
<tr>
<td>2</td>
<td>$24</td>
<td>$15</td>
<td>$36</td>
<td>$3</td>
<td>$24</td>
<td>$33</td>
<td>$96</td>
</tr>
<tr>
<td>3</td>
<td>$24</td>
<td>$36</td>
<td>$44</td>
<td>$7</td>
<td>$24</td>
<td>$144</td>
<td>$69</td>
</tr>
<tr>
<td>4</td>
<td>$24</td>
<td>$48</td>
<td>$87</td>
<td>$24</td>
<td>$105</td>
<td>$216</td>
<td>$110</td>
</tr>
<tr>
<td>5</td>
<td>$24</td>
<td>$136</td>
<td>$106</td>
<td>$19</td>
<td>$24</td>
<td>$264</td>
<td>$91</td>
</tr>
<tr>
<td>6</td>
<td>$24</td>
<td>$136</td>
<td>$106</td>
<td>$24</td>
<td>$24</td>
<td>$264</td>
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<td>7</td>
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<td>$106</td>
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<td>$24</td>
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<tr>
<td>8</td>
<td>$24</td>
<td>$136</td>
<td>$106</td>
<td>$24</td>
<td>$24</td>
<td>$264</td>
<td>$91</td>
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<tr>
<td>9</td>
<td>$24</td>
<td>$136</td>
<td>$106</td>
<td>$24</td>
<td>$24</td>
<td>$264</td>
<td>$91</td>
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<tr>
<td>10</td>
<td>$24</td>
<td>$136</td>
<td>$106</td>
<td>$24</td>
<td>$24</td>
<td>$264</td>
<td>$91</td>
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<tr>
<td>11</td>
<td>$24</td>
<td>$136</td>
<td>$106</td>
<td>$24</td>
<td>$24</td>
<td>$264</td>
<td>$91</td>
</tr>
<tr>
<td>12</td>
<td>$24</td>
<td>$136</td>
<td>$106</td>
<td>$24</td>
<td>$24</td>
<td>$264</td>
<td>$91</td>
</tr>
</tbody>
</table>
Total Revenue and Marginal Revenue

Every firm must answer certain questions. One question is: How much should the firm produce? Fill in the blank for question 47 to answer this question and then use the table to answer the other three questions.

47. According to economists, a business should continue to produce additional units of its good until

is equal to

48. So, the firm in the table should produce _______ gadgets at current prices.

49. If the price (marginal revenue) of gadgets rises to $37, the firm should produce _______ gadgets.

50. If the price (marginal revenue) of gadgets drops to $15, the firm should produce _______ gadgets.

A firm also needs to decide how many workers to hire. To see how a firm makes this decision, you need to understand the law of diminishing marginal returns. Fill in the blanks for questions 51 and 52 with the correct answers.

51. According to the law of diminishing marginal returns, if additional units of one

such as labor, are added to another in fixed supply, such as capital, eventually the additional output (produced as a result of hiring an additional worker will

52. If a firm adds workers to increase production, more must be added to minimize the effects of the law of diminishing marginal returns.

A firm decides how many workers to hire by looking at both the costs and the benefits of an additional worker. The benefits are the additional output produced as a result of hiring an additional worker and the revenue generated by that additional output (price of good produced x additional output). The costs are the wages paid to an additional worker.

Based on the information above, answer questions 53 and 54.

53. According to economists, a firm should hire additional workers until the additional output produced by the additional worker multiplied by the price of the good is _______ the wage the firm must pay the worker.

54. Fill in the missing numbers in the following table. (5 points possible)

<table>
<thead>
<tr>
<th>Number of workers</th>
<th>Quantity of output per hour</th>
<th>Additional output produced by hiring an additional worker</th>
<th>Additional revenue generated if the price of the good is $5</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>$0</td>
</tr>
<tr>
<td>1</td>
<td>4</td>
<td>4</td>
<td>$20</td>
</tr>
<tr>
<td>2</td>
<td>10</td>
<td>6</td>
<td>$30</td>
</tr>
<tr>
<td>3</td>
<td>17</td>
<td>______</td>
<td>______</td>
</tr>
<tr>
<td>4</td>
<td>23</td>
<td>______</td>
<td>______</td>
</tr>
<tr>
<td>5</td>
<td>28</td>
<td>______</td>
<td>______</td>
</tr>
<tr>
<td>6</td>
<td>31</td>
<td>______</td>
<td>______</td>
</tr>
<tr>
<td>7</td>
<td>32</td>
<td>______</td>
<td>______</td>
</tr>
<tr>
<td>8</td>
<td>31</td>
<td>______</td>
<td>______</td>
</tr>
</tbody>
</table>

59. The law of diminishing marginal returns sets in with worker # _______.

60. If the firm pays workers $15 an hour, it should hire _______ workers.