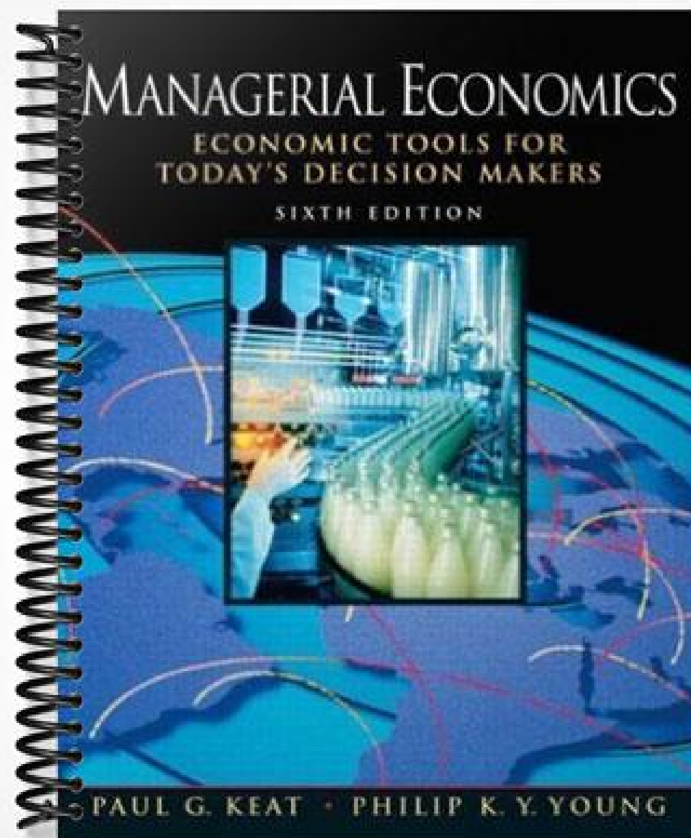
SOLUTIONS MANUAL
MANAGERIAL ECONOMICS
ECONOMIC TOOLS FOR
TODAY'S DECISION MAKERS
SIXTH EDITION
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CHAPTER 2
THE FIRM AND ITS GOALS

QUESTIONS

1. Yes. The company can profit from this action in several ways. Graduate students, impressed with the computers, may become recruits for the computer firm. This increases the employment market for the firm, and it may become able to hire some superior graduates. Or, these students, after graduation, will work for other firms and recommend the computer made by this manufacturer for use in their work place. In short, if the additional profits from future sales exceed the cost of the donation, then such a policy is quite consistent with profit maximization.

2. This is an incomplete objective, and may not be consistent with the objective of profit maximization. Setting a profit margin too high may result in smaller profits than could possibly be achieved with a lower profit margin. In other words, setting a profit margin may not result in profit maximization. The profit maximization goal should be stated in absolute values, since a high ratio applied to a small base could yield a lower absolute profit, while a low ratio applied to a high base could yield a high amount. For example, a 10% profit margin on revenue of $10 million results in $1 million in profits, while a 5% margin on revenue of $30 million yields $1.5 million in profits.

3. This comment is incorrect. It is quite true that the existence of consumer organizations, legal requirements and warranty requirements may raise a company's costs above what they would have been in their absence. But such costs will now be included in a company's cost calculations. Given these costs, a company can still attempt to maximize its profits under the new circumstances. The total profit level will be lower than if these costs did not exist, but the process of profit maximization will still be in place.

4. Shareholder wealth maximization is the more comprehensive of the two. Profit maximization is a period of value that may be obtained by short-term management action which could be detrimental to profits in future periods.

   But a company with longer range horizons will want to consider a stream of earnings (or cash flows) over time. This stream is then discounted at the company's cost of capital to the present to obtain the present value of this stream. This present value is the value of the firm or that of the stockholders. When such an objective is used, the company is considering the shape and duration of the cash flow stream and the return required by stockholders (i.e. the equity cost of capital). The required rate of return is affected by risk, and, thus, risk enters into the valuation. Obviously, this measure is much more inclusive than the maximization of profit for any one period.

5. Stockholders generally may not know what maximum profits their firm could generate. Thus, they will look for a satisfactory return (both dividend and price appreciation). Company management will not be held to maximization but will manage the corporation in a way as to satisfy the shareholders. The term often used to describe this is "satisficing."

6. The "principal-agent problem" refers to the possible divergence of objectives between the owners and managers of an enterprise. While the owners of a firm (stockholders, when the firm is a corporation) are interested mainly in the increase in the firm's value, managers may have other interests. Managers may be more interested in their own incomes and perquisites. They may also

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strive for revenue growth rather than profits. They may, in the interest of their own security, be more conservative in running the business, and may forgo investments with high potential that may entail some risk.

7. Since the ownership in a corporation is widely dispersed, and thus individual stockholders have little power, it may be believed by managers that it is not necessary to endeavor to maximize company profits. Since the managers usually own only a small fraction of the corporation's stock, their interest may not be served best by maximizing the value of the corporation. Thus they may be more interested in maximizing their own incomes and perquisites. They may also not take prudent risks to maximize returns, since a severe reversal in business fortunes could cause them to lose their positions. Not taking the appropriate risks may result in rather mediocre but still satisfactory shareholder returns.

8. There are several forces which will tend to create a convergence between the interests of stockholders and managers, and thus cause managers to be interested in maximizing a corporation's profits or value:

   a. Corporate shares are not only owned by widely dispersed stockholders but by large institutional holders (banks, insurance companies, mutual funds, pension funds). These organizations employ analysts who continually study stock performance. Non-performing companies would be sold from these institutions' portfolios, and lead to decreased prices of these stocks. This could then result in takeovers by other companies, proxy fights, etc. which could lead to the dismissal of present management.

   b. Competitive pressures could lead to stock price declines for a non-performing company, and again result in takeovers, proxy contests, etc.

   c. In many corporations, management remuneration is tied to performance and managers frequently are awarded stock options which gain value as the price of shares rises. Thus, managers will have an interest in maximizing stockholder welfare.

9. It probably does. Other types of objectives may be partial; but profit and wealth maximization still appear to be the most inclusive objectives. Further, it is much more possible to test this hypothesis than some of the others.

10. No. Accounting depreciation is calculated on historical costs. Thus, depreciating a machine which cost $10,000 when originally purchased can result only in a maximum of $10,000 of depreciation charges set aside toward the purchase of a replacement machine. If this machine (due to inflation) now costs $20,000, then the funds earmarked for the new machine will be insufficient to purchase it. For economists, replacement costs are the relevant quantities.

11. Implicit costs can include in them costs not considered by accountants, such as the owners' opportunity costs. Thus, accounting profit would generally be higher than economic profit. Economists would include opportunity costs in their calculation of costs; economists' costs include what is usually referred to as normal profit.

12. You would compare the amount of time spent on each employment, projected business profits versus salaries that could be earned from working for others, the interest that you could earn on your investment in your business against keeping your funds invested elsewhere (i.e. savings

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account or other), and the risk involved in the two alternatives. You may even include some estimate (hard to quantify) of any psychic value you derive from being your own boss.

13. Depreciation should reflect the actual change in the value of the equipment and the change in the equipment's replacement cost.

14. A multinational corporation is usually faced with different legal, economic, cultural and tax conditions in the many countries in which it operates. Such considerations will complicate greatly the tasks of a corporation's managers and create constraints on their actions. However, if management learns to live with such additional risk and restrictions, corporations can still pursue the goal of profit maximization.

15. Transaction costs are costs which a company incurs in dealing with other entities. Among the costs incurred are those of investigation, contract negotiation, contract enforcement, and transaction coordination. Opportunistic behavior occurs when one of the parties to the transaction takes advantage of the other. This may happen when the transactions involve specialized products or specialized equipment, that may be affected by changes in future market conditions or technology. The possibility of opportunistic behavior thus makes the transaction more risky and will tend to increase transaction costs.

16. As markets expand, companies specializing in particular products will grow and become efficient, and will tend to be able to produce these products at costs that are lower than if produced by an integrated company. This has become true for highly technical products and services. The existence of the Internet has brought about significant decreases in transaction costs, such as the costs of search, investigation, contracting and coordination.

17. High transaction costs will cause a firm to internalize some of its costs. Some of the reasons for high transaction costs are:

    a. The negotiation and enforcement of contracts.
    b. Uncertainty and frequency of transactions.
    c. Assets-specificity which may lead to opportunistic behavior.

18. Using the constant dividend growth formula $P = D_1/(k - g)$, and noting that the $2 dividend was paid *last* year, so this year's dividend would be expected to be 6% higher:

    $2*(1.06) /(0.13 - 0.06) = 2*(1.06)/0.07 = \$30.29$ per share

    $30.29 \times 2{,}000{,}000 = \$60{,}571{,}428$

19. Shareholder wealth is calculated by multiplying the number of shares outstanding by the price of the stock. MVA is the difference between the market value of the company (including both stocks and bonds) and the capital contributed by the investors. The latter concept is more meaningful since it measures the increase in wealth of the investors above what they have contributed. A company could have a very high market value, but investors may have actually contributed more than the company is worth. In such a case, there has been a destruction of investors' value. General Motors appears to be an example of such a situation.

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