
Chapter 6: Answers to Questions and Problems

1. When an input has well-defined and measurable quality characteristics and requires specialized investments, the optimal procurement method is a contract. A contract reduces the likelihood of opportunistic behavior and underinvestment by creating a legal obligation between the firms. One disadvantage of a contract is that it increases a firm's transaction costs. An example, Boeing contracting with an aluminum manufacturer.
2. When a firm requires a limited number of standardized inputs that are sold by many firms in the marketplace, the optimal method of procurement is spot exchange. One advantage of spot exchange is that they permit firms to specialize. A disadvantage is that the firm may potentially face the hold-up problem. An example, a painter purchasing paint from a local paint store.
3.
 - a. Contract.
 - b. Vertical Integration.
 - c. Spot exchange (or possibly contract if a specific investment in many motors is required).
 - d. Spot exchange.
4. Engine manufacturing involves specific investments and a complex contracting environment. By vertically integrating, the potential for opportunism is reduced. Mirrors are relatively uniform products that can be purchased by spot exchange or contract.
5.
 - a. Human capital.
 - b. Physical asset specificity; note that the assembly line was designed especially for a particular firm's product.
 - c. Site specificity.
6. The manager prefers the compensation scheme that pays a fixed salary plus a percentage of the profits. Essentially, the manager is faced with a choice between two consumption bundles: (1) a \$125,000 fixed salary plus 10 hours of on-the-job leisure and (2) \$125,000 in salary plus bonus plus 3 hours of on-the-job leisure. Since the original compensation package of a \$125,000 and 10 hours of shirking is still available, the fact that she chose to work 7 hours reveals that she prefers the second pay scheme.

7. Spot checks and hidden video cameras are effective and relatively inexpensive to implement initially. The disadvantage is that spot checks and hidden video cameras may affect the morale of the workers. Moreover, implementing hidden cameras requires more employees to monitor the cameras. The advantage of pay for performance schemes is that it may be easier for a manager to observe individual worker (or group) performances. However, pay-for-performance schemes may be costly. In addition, when output is a function of group performance or its quality is difficult to measure, an individual's contribution to the output may not be observable.
8.
 - a. Reduce the benefits of vertical integration.
 - b. Reduce the benefits of vertical integration and lead firms to use contracts or spot exchange to procure inputs.
 - c. Lead to contracts that are more detailed or vertical integration.
 - d. Make spot exchange an unattractive method of procurement due to opportunism and possibly underinvestment.
 - e. Make contracts a less attractive form of input acquisition.
 - f. Lead to longer contracts, or in extreme instances, vertical integration.
9. The environment in which computer manufacturers operate is very uncertain. The rate of technical progress among chip, and other hardware, manufacturers increases the marginal cost of signing long-term contracts.
10. A contract decreases the problem of opportunism and still allows the firm to specialize in production.
11. Capping pension fund managers' compensations would reduce the executives' incentives to maximize the value of the fund under their control, thereby reducing the overall return to the fund participants.
12. Contracts requiring large specialized investments are expected to be longer than contracts requiring relatively smaller specialized investments. The reason is that transaction costs increase once the contract expires. By writing longer contracts, these costs can be avoided. Thus, large specialized investments increase the marginal benefit of writing longer contracts.
13. The first important point to make with shareholders is that restructuring the incentive plan is designed to maximize shareholder value. This is achieved by giving employees incentives to stay with the company longer, thereby reducing costly employee turnover and increasing the company's profitability. Also, by restructuring the incentive plan, employees will want to find ways to work more productively and make the company more profitable. The benefits to the shareholders and the employees will be a higher stock price.
14. The reduction in another supplier's cost of producing airbags reduces GM's marginal benefit of contracting. Therefore, the 15-year contract that has been negotiated is too long; the optimal contract length is now less than 15 years.

15. The manager might pay a salesperson a base salary plus a percentage of the profits. This plan would penalize salespersons, to some extent, for excessive mileage.
16. In the absence of an incentive contract, a manager may still choose to maximize profits in order to build a reputation in being a superb manager and increasing the potential of future management opportunities. Furthermore, the threat of a takeover by other investors and job loss also disciplines managers to maximize profits, even if they are paid a fixed salary.
17. No.
18. The principal-agent problem in this situation exists between on-duty police officers (the agent) and the city officials who hire them (the principals). On-duty police officers were supposed to prevent picket lines from blocking worker access. Members of the police union appear to be engaging in opportunistic behavior to improve their bargaining power. The city of Boston has committed to spending \$14 million to host the DNC and the police union is attempting to take advantage of this specialized investment. Therefore, the city of Boston is facing the “hold-up problem” as defined in the book. The problem also illustrates the problem of writing contracts: when the city of Boston wrote a contract with Shawmut Design and Construction there were many unforeseeable events that may not explicitly be defined in the contract.
19. Business-process outsourcing (BPO) is a contractual relationship with a third-party firm, whereas a firm that produces human resource services internally is vertically integrated. Contracting human resource services with a third party allows the firm to specialize in activities related to its core business, which as the problem points out may result in large cost savings. Contracts, however, are costly to write and often incomplete. These reasons provide justification for vertical integration. Contracting with an international-based firm may be more costly since the contract must be written in a manner to protect the firm in a foreign country. This extra cost should be compared to the extra benefit (cost savings) that accrues from lower off shore labor. Furthermore, there may be cultural difference in hiring practices that may make outsourcing from human resources to an international firm less attractive.