Table 9.7
The Costs of Three Ways of Making 10 TV Sets: High Capital Costs

<table>
<thead>
<tr>
<th>Method</th>
<th>Labor cost ($1 per day)</th>
<th>Capital cost ($1,000 per day)</th>
<th>Total cost</th>
<th>Cost per TV set</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>$1</td>
<td>$1,000,000</td>
<td>$1,000,001</td>
<td>$100,000.10</td>
</tr>
<tr>
<td>b</td>
<td>10</td>
<td>10,000</td>
<td>10,010</td>
<td>1,001.00</td>
</tr>
<tr>
<td>d</td>
<td>1,000</td>
<td>1,000</td>
<td>2,000</td>
<td>200.00</td>
</tr>
</tbody>
</table>

Firms and Markets

At the beginning of this chapter, we defined a firm as an institution that buys or hires factors of production and organizes these resources to produce and sell goods and services. In organizing production, firms coordinate the economic activities of many individuals. But a firm is not the only institution that coordinates economic activity. Coordination can also be achieved by using the market. In Chapter 1, we defined the market as a mechanism for coordinating people’s buying and selling plans. By buying inputs and services in many individual markets, each one of us can organize the production of the goods and services that we consume. Consider, for example, two ways in which you might get your creaking car fixed:

- **Firm coordination.** You take the car to the garage. Parts and tools as well as the mechanic’s time are coordinated by the garage owner, and your car gets fixed. You pay one bill for the entire job.
- **Market coordination.** You hire a mechanic who diagnoses the problems and makes a list of the parts and tools needed to fix them. You buy the parts from the local wrecker’s yard and rent the tools from ABC Rentals. You hire the mechanic again to fix the problems. You return the tools and pay your bills—wages to the mechanic, rental to ABC, and the cost of the parts used to the wrecker.

What determines the method that you use? The answer is cost. Taking account of the opportunity cost of your own time as well as the costs of the other inputs that you’d have to buy, you will use the method that costs least. In other words, you will use the economically efficient method.

Firms coordinate economic activity when they can perform a task more efficiently than markets. In such a situation, it will pay someone to set up a firm. If markets can perform a task more efficiently than a firm, people will use markets and any attempt to set up a firm to replace such market coordination will be doomed to failure.

**Why Firms?**

There are three key reasons why, in many instances, firms are more efficient than markets as coordinators of economic activity. Firms achieve:

- Lower transactions costs
- Economies of scale
- Economies of team production

**Transactions Costs** The idea that firms exist because there are activities in which they are more efficient than markets was first suggested by Nobel Prize–winning University of Chicago economist
Ronald Coase. Coase focused on the firm’s ability to reduce or eliminate transactions costs. Transactions costs are the costs arising from finding someone with whom to do business, of reaching an agreement about the price and other aspects of the exchange, and of ensuring that the terms of the agreement are fulfilled. Market transactions require buyers and sellers to get together and negotiate the terms and conditions of their trading. Sometimes lawyers have to be hired to draw up contracts. A broken contract leads to still more expenses. A firm can lower such transactions costs by reducing the number of individual transactions undertaken.

Consider, for example, the two ways of getting your car fixed that we’ve just described. The first method requires that you undertake only one transaction with one firm. It’s true that the firm has to undertake several transactions—hiring the labor and buying the parts and tools required to do the job. But the firm doesn’t have to undertake those transactions simply to fix your car. One set of such transactions enables the firm to fix hundreds of cars. Thus there is an enormous reduction in the number of individual transactions that take place if people get their cars fixed at the garage rather than going through the elaborate sequence of market transactions that we described above.

**Economies of Scale** When the cost of producing a unit of a good falls as its output rate increases, economies of scale exist. Many industries experience economies of scale, and automobile and television manufacturing are two examples. Economies of scale can be reaped only by a large organization; thus they give rise to firm coordination rather than market coordination.

**Team Production** A production process in which individuals work in a group and each individual specializes in mutually supportive tasks is team production. Sport provides the best example of team activity. Some team members specialize in pitching and some in batting, some in defense and some in offense. The production of goods and services offers many examples of team activity. For example, production lines in automobile and TV manufacturing plants work most efficiently when individual activity is organized in teams, each specializing in a small task. You can also think of an entire firm as being a team. The team has buyers of raw material and other inputs, production workers, and salespeople. There are even specialists within these various groups. Each individual member of the team specializes, but the value of the output of the team and the profit earned depend on the coordinated activities of all the team’s members.

The idea that firms arise as a consequence of the economies of team production was first suggested by Armen Alchian and Harold Demsetz of the University of California at Los Angeles.

Because firms can economize on transactions costs, reap economies of scale, and organize efficient team production, it is firms rather than markets that coordinate most of our economic activity. There are, however, limits to the economic efficiency of firms. If firms become too big or too diversified in the things they seek to do, the cost of management and monitoring per unit of output begins to rise, and, at some point, the market becomes more efficient at coordinating the use of resources—see Reading Between the Lines, pp. 226–227.

Sometimes firms enter into long-term relationships with each other that effectively cut out ordinary market transactions and make it difficult to see where one firm ends and another begins. For example, GM has long-term relationships with suppliers of windows, tires, and other parts. Such relationships make transactions costs lower than they would be if the firms went shopping on the open market each time they wanted new supplies. At the same time, a firm avoids diseconomies of scale that can arise if it becomes too big and its management becomes unresponsive to changing conditions.

In the next chapter, we are going to study the choices of firms. We will study their production decisions, how they minimize costs, and how they choose the amounts of the various inputs to employ.

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