

CHAPTER 14

PRODUCING PRODUCTS AND SERVICES

Author's Note

This is another chapter that is left out of most entrepreneurship books and yet, manufacturing and production are making a big comeback in the United States. Because of technology and the global marketplace, more and more entrepreneurs are trying their hand at product development and manufacturing. This chapter looks at what world-class manufacturing for entrepreneurs is like today. Some of the philosophies and strategies are appropriate to all types of businesses.

Learning Objectives

This chapter will give students an understanding of:

- The components of production
- How to prepare to produce products and services
- How to calculate production costs
- The maintenance and warranty of production processes

Supplementary Lecture Material

Does Manufacturing Matter?

It is not uncommon for people outside manufacturing to assert that manufacturing no longer matters. We're a service economy; it's the information age. Manufacturing is an anachronism. The question should really be, "Does the art and science of making things" still matter? Well, let's see.

L.M. Ericsson Telephone Co. is the leading manufacturer of cellular networks and number three in the product of mobile-telephone handsets. It announced that manufacturing problems had caused a \$1.1 billion loss in the fourth quarter of 2000 and that it had lost significant market share not only to leader Nokia Corp. but to fourth-place Siemens AG. Ericsson has now decided to outsource all its handset manufacturing to a Singapore company.

Quality control was the downfall of Bridgestone/Firestone, which had to recall over 6.5 million of its Wilderness AT tires because the tires produced at the Decatur, Illinois, plant had a significantly higher propensity to fail.

The FDA had to shut down production of influenza vaccine in 2000 because of lack of consistency in manufacturing practices at three out of four plants. When you consider that every 1 million doses of flu vaccine to elderly recipients prevents about 900 deaths and 1,300 hospitalizations, the importance of manufacturing becomes evident.

Source: John R. Brandt, "Manufacturing Does Matter," Industry Week, March 19, 2001.

Cases Relevant to This Chapter

Roland International Freight Service
Wizards of the Coast

Answers to Issues to Consider

1. *Why is it important to consider your manufacturing plan in the earliest stages of your new venture?*

Building a complex production system while the company is in start-up or later while it's rapidly growing is a recipe for disaster. If you plan for production, you will know where potential delays could occur and you can design your production processes to be compatible with your product design—in other words, integrating product and process.

2. *What are three factors that should be taken into consideration when choosing vendors to meet materials requirements?*

Three factors to consider when choosing vendors are a) can the vendor deliver enough of what you need when you need it? b) what is the cost of transportation? and c) what services is the vendor offering you?

3. *Suppose you had a new advertising firm. How could you use just-in-time scheduling to create more efficiencies in your operations?*

The goal of JIT is to eliminate waste in the production process. Starting with the last operation, which is usually the customer requirement, you would work backward through the development process. The customer determines how much product must be designed; that number determines the production capability requirements of the advertising firm, which in turn determine the amount of raw materials needed. So you would maintain an inventory of raw materials and labor only large enough to support one day of production.

4. *In what ways can the human resources of the business help control quality in all areas of the organization?*

Employees must be given the responsibility and authority to make changes that will improve the process and product at every level. The continual use of awareness and training programs will help employees understand their importance in the whole manufacturing process.

Suggestions for Experiencing Entrepreneurship

1. *Visit a manufacturing facility that is using technology and develop a flow chart of the manufacturing process. Can you see any ways to improve the process?*

Students should draw the activities of the manufacturing process in a flow chart form and also indicate how many employees are involved in the process.

2. *Interview a manufacturing entrepreneur about his or her views on quality. How is this entrepreneur implementing quality control in his or her organization?*

Students should be aware that the entrepreneur may not describe his or her quality system in the same terms as the students found in their textbooks. They must extrapolate from what the entrepreneur says and relate it to the information in the text.