

CHAPTER 1

#### **DISCUSSION QUESTIONS**

- 1. Why is innovation so important for firms to compete in many industries?
- 2. What are some of the advantages of technological innovation? Disadvantages?
- 3. Why do you think so many innovation projects fail to generate an economic return?

### 1. WHY IS INNOVATION SO IMPORTANT FOR FIRMS TO COMPETE IN MANY INDUSTRIES?

Innovation enables firms to:

- -introduce more product and service variations, enabling better market segmentation and penetration;
- -(may)improve existing products and services so that they provide better utility to customers;
- -improve <u>production processes</u> so that products and services can be delivered <u>faster and at better prices</u>.

## 1. WHY IS INNOVATION SO IMPORTANT FOR FIRMS TO COMPETE IN MANY INDUSTRIES?

Increasing globalization has both expanded the potential markets for many firms while simultaneously exposing them to greater <u>competition</u>;

this has resulted in firms putting <u>more emphasis on innovation</u> as a lever of competitive differentiation.

## 1. WHY IS INNOVATION SO IMPORTANT FOR FIRMS TO COMPETE IN MANY INDUSTRIES?

Furthermore, information technology has enabled such process innovations as CAD/CAM, rapid prototyping, and flexible manufacturing, enabling firms to produce <u>more product</u> <u>variants faster and cheaper.</u>

This is a double edged sword: it has enabled <u>product lifecycles to shorten</u> (making rapid innovation more imperative) while simultaneously improving a <u>firm's options for innovation</u>.

### 2. WHAT ARE SOME OF THE ADVANTAGES OF TECHNOLOGICAL INNOVATION? DISADVANTAGES?

Technological innovation <u>increases knowledge</u>, <u>and makes more options available (cars' models)</u>. On the whole, evidence suggests that technological innovation has <u>increased GDP and standards of living worldwide (Chotukool)</u>.

### 2. WHAT ARE SOME OF THE ADVANTAGES OF TECHNOLOGICAL INNOVATION? DISADVANTAGES?

- -risks of negative externalities
- -pollution;
- -agricultural and fishing technologies can result in the erosion, elimination of natural habitats, and the depletion of ocean stocks;
- -medical technologies can result in <u>unanticipated consequences</u> such as antibiotic-resistant strains of bacteria and viruses, or <u>moral dilemmas regarding the use of genetic</u> modification such as externalities.

## 3. WHY DO YOU THINK SO MANY INNOVATION PROJECTS FAIL TO GENERATE AN ECONOMIC RETURN?

Innovation is an inherently <u>risky undertaking</u>. Most innovation projects are characterized by both <u>technical uncertainty</u> (will the project result in a technically feasible product or service?) and <u>market uncertainty</u> (what features will customer prefer and what will they be willing to pay for them?)

In their eagerness to innovate, firms are at risk of undertaking too many projects, overestimating their potential returns and underestimating their uncertainty.

# 3. WHY DO YOU THINK SO MANY INNOVATION PROJECTS FAIL TO GENERATE AN ECONOMIC RETURN?

This is compounded by the fact that many people mistakenly believe that creativity can only be tapped through an unstructured process, when in fact innovation is most powerful and has a greater likelihood of success when it is planned and implemented strategically.