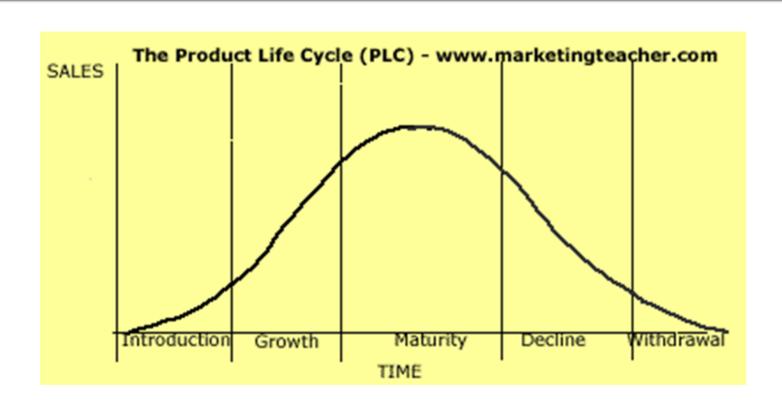
#### **Industry Evolution**

Chapter 8 of Porter's book

## Basic Concepts in Industry Evolution

- The Product Life Cycle
  - Industry growth follows an S-shaped curve
  - See diagram on the next slide

## Basic Concepts in Industry Evolution (cont'd) The Product Life Cycle



#### Basic Concepts in Industry Evolution (cont'd) The Product Life Cycle

#### Problems with Product Life Cycle (PLC)

- In reality very few products follow such a prescriptive cycle.
  - The length of each stage varies enormously.
  - The decisions of marketers can change the stage, for example from maturity to decline by price-cutting.
  - Not all products go through each stage.
    - Some go from introduction to decline.
  - It is not easy to tell which stage the product is in.
- Remember that PLC is like all other tools. Use it to inform your gut feeling.

- Instead of attempting to describe industry evolution, it will prove more fruitful to look underneath the process to see what really drives it.
- Each industry begins with an initial structure

   the entry barriers, buyer and supplier
   power, and so on which exist when the industry comes into existence.

- There are some predictable (and interacting) dynamic processes that occur in every industry in one form or another.
  - Long-run changes in growth
  - Changes in buyer segments served
  - Buyers' learning
  - Reduction of uncertainty
  - Diffusion of proprietary knowledge
  - Accumulation of experience
  - Expansion (or contraction) in scale
  - Changes in input and currency costs
  - Product innovation, Marketing innovation, and Process innovation
  - Structural changes in adjacent industries
  - Government policy changes
  - Entries and exits

Long-Run Changes in Growth

- There are five important external reasons whey long-run industry growth changes
  - Demographics
  - Trends in needs
  - Change in relative positions of substitutes
  - Changes in the position of complementary products
    - Products used jointly with the product
  - Penetration of the customer group
    - Eventually, an industry will reach essentially complete penetration.

Changes in Buyer Segments Served

- Early adopters may be innovation-oriented, but then later adopters come from the broader population.
- Additional segmentation of existing buyers can take place.
- Certain buyer segments are no longer served.

Learning by Buyers

- Through repeat purchasing, buyers accumulate knowledge about a product, its use, and the characteristics of competing brands.
- Products have a tendency to become more like commodities over time as buyers become more sophisticated and purchasing tends to be based on better information.
- Learning about the product may lead to increasing demands for warranty protection, service, improved performance characteristics, and so forth.

**Reduction of Uncertainty** 

- Most new industries are initially characterized by a great deal of uncertainty about such things as
  - the potential size of the market,
  - optimal product configurations,
  - nature of potential buyers and how they can best be reached, and
  - whether technological problems can be overcome.
- Reduction of uncertainty may attract new types of entrants into the industry.
- Strategically, reduction of uncertainty and the possibility of imitation suggest that a firm cannot rely on uncertainty alone to protect it from its rivals or from new entrants for very long.

Diffusion of Proprietary Knowledge

- Over time, a technology becomes more established and knowledge about it more widespread.
  - Firms learn from physical inspection of competitors' proprietary products
  - Proprietary information is diffused as it becomes embodied in capital goods produced by outside suppliers.
  - Specialized personnel who are expert in the technology invariably become more numerous from sources such as consulting firms, suppliers, customers, university technical schools, and so on.

Accumulation of Experience

- In some industries, unit costs decline with experience in manufacturing, distributing, and marketing of the product.
- When experience can be kept proprietary, it can be a potent force in industry change.
- If a firm is not gaining experience the fastest, it must prepare strategically to either practice rapid imitation or build strategic advantages in other areas besides cost.

Expansion or Contraction of Scale

- Increasing scale in industry and firm has a number of implications for industry structure.
  - It tends to widen the set of available strategies in ways that often lead to increased economies of scale and capital requirements.
  - Strategies of vertical integration become more feasible, and increased vertical integration tends to elevate barriers.
  - There may be a tendency for large firms to enter the market.
    - Many large firms will enter a market only after it has reached a significant size.

Changes in Input and Exchange Rates

- Every industry uses a variety of inputs to its manufacturing, distribution, and marketing process.
  - Changes in the cost or quality of these inputs can affect industry structure.
- The most important classes of input costs subject to change are:
  - Wage rates
  - Material costs
  - Cost of capital
  - Communication costs (including media)
  - Transportation costs
- Exchange rate fluctuations also can have a profound effect on industry competition.

**Product Innovation** 

- A major source of industry structural change is technological innovations of various types and origins.
  - Innovation in product is one important type.
- Product innovation can widen the market and hence promote industry growth and/or it can enhance product differentiation.
- Innovations may require new marketing, distribution, or manufacturing methods.

**Marketing Innovation** 

- Like innovations in product, those in marketing can influence industry structure directly through increasing demand.
  - Breakthroughs in the use of advertising media, new marketing themes or channels, and so forth can allow reaching new consumers or reducing price sensitivity.
  - The discovery of new channels of distribution can similarly widen demand.

**Process Innovation** 

- Innovations that make the process more or less capital intensive, increase or decrease vertical integration, affect the process of accumulating experience, and so on – all of which will affect industry structure.
- Manufacturing innovations that change industry structure can come from outside the industry as well as from within.

Structural Change in Adjacent Industries

- Since the structure of suppliers' and customers' industries affect their bargaining power with an industry, changes in their structure have potentially important consequences for industry evolution.
  - For example, changes in mass merchandising (i.e., increasing concentration) have had profound affects on manufacturers who sell to the consumer through retailers.
    - Note: While a consumer product is obviously intended for the consumer, the manufacturer's actual buyer is the retailer.

Government Policy Change

- Government influences can have a significant and tangible impact on industry structural change, with the most direct being
  - Full-blown regulation of such key variables as entry into the industry, competitive practices, or profitability.
- Less direct forms of government influence on industry structure occur through regulation of product quality and safety, environmental quality, and tariffs.

**Entries and Exits** 

- Entry clearly affects industry structure, particularly entry by established firms (by acquisition or internal development) from other industries.
- Exit changes industry structure by reducing the number of firms and possibly increasing the dominance of the leading ones.
  - Firms exit because they no longer perceive the possibility of earning sufficiently attractive returns on their investments.