Industry Life Cycle

- If products have life cycles, so too do the industries that produce them.
- The industry life cycle is the supply-side equivalent of the product life cycle.
- The life cycle comprises four phases: introduction (or emergence), growth, maturity, and decline

What is an Industry?

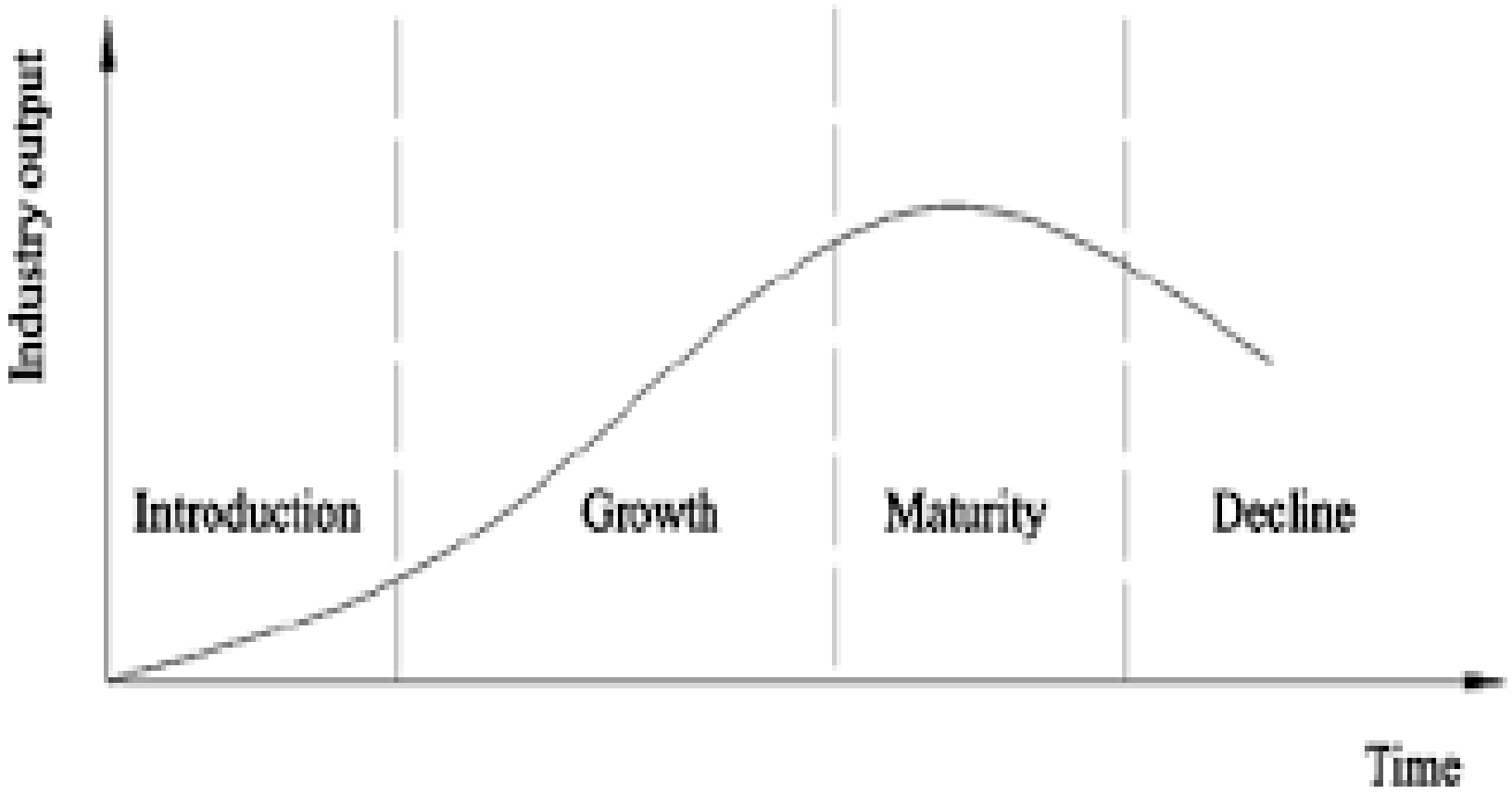
- An industry is a group of companies that are related based on their primary business activities.
- E.g. TATA Steel, SAIL, JINDAL Steels forms the steel industry.
- Several industries with similar broad area forms the sector.

Forces that are driving industry evolution

Two factors are fundamental:

- Demand growth and
- The production and diffusion of knowledge

Industry Life cycle



Demand growth.

- The life cycle and the stages within it are defined primarily by changes in an industry's growth rate over time. The characteristic profile is an S-shaped growth curve.
- **Introduction stage**: sales are small and the rate of market penetration is low because the industry's products are little known and customers are few.
- The novelty of the technology, small scale of production, and lack of experience means high costs and low quality. Customers for new products tend to be affluent, innovation-oriented, and risk-tolerant.

- **The growth stage : C**haracterized by accelerating market penetration as technical improvements and increased efficiency open up the mass market.
- **The maturity stage**: Increasing market saturation. Once saturation is reached, demand is wholly for replacement.
- **Decline Stage**: Finally, as the industry becomes challenged by new industries that produce technologically superior substitute products, the industry enters in to decline state.

Creation and Diffusion of Knowledge

- The second driver of the industry life cycle is knowledge.
- New knowledge in the form of product innovation is responsible for an industry's birth, and
- the dual processes of knowledge creation and knowledge diffusion exert a major influence on industry evolution.

Dominant Designs and Technical Standards

- The outcome of competition between rival designs and technologies is usually convergence by the industry around a dominant design—a product architecture that defines the look, functionality
- Production method for the product and becomes accepted by the industry as a whole.

- The concepts of dominant design and technical standard are closely related.
- Dominant design refers to the overall configuration of a product or system.
- A technical standard is a technology or specification that is important for compatibility.
- A dominant design may or may not embody a technical standard.
- Technical standards emerge where there are network effects—the need for users to connect in some way with one another.
- Network effects cause each customer to choose the same technology as everyone else to avoid being stranded.

- Technical standard, which is typically embodied in patents or copyrights
- A firm that sets a dominant design does not normally own intellectual property in that design.
- Hence, except for some early mover advantage, there is not necessarily any profit advantage from setting a dominant design.
- Dominant designs also exist in processes.

From Product to Process Innovation

- The emergence of a dominant design marks a critical juncture in an industry's evolution.
- Once the industry merges around a leading design, there's a shift from radical to incremental product innovation.
- This transition may be necessary to inaugurate the industry's growth phase: greater standardization reduces risks to customers and encourages firms to invest in production capacity.

- The shift in emphasis from design to manufacture typically involves increased attention to process innovation as firms seek to reduce costs and increase product reliability through large-scale production methods.
- The combination of process improvements, design modifications, and scale economies results in falling costs and greater availability that drives rapidly increasing market penetration.

- Knowledge diffusion is also important on the customer side. Over the course of the life cycle, customers become increasingly informed.
- As they become more knowledgeable about the performance attributes of rival manufacturers' products, so they are better able to judge value for money and become more price sensitive.

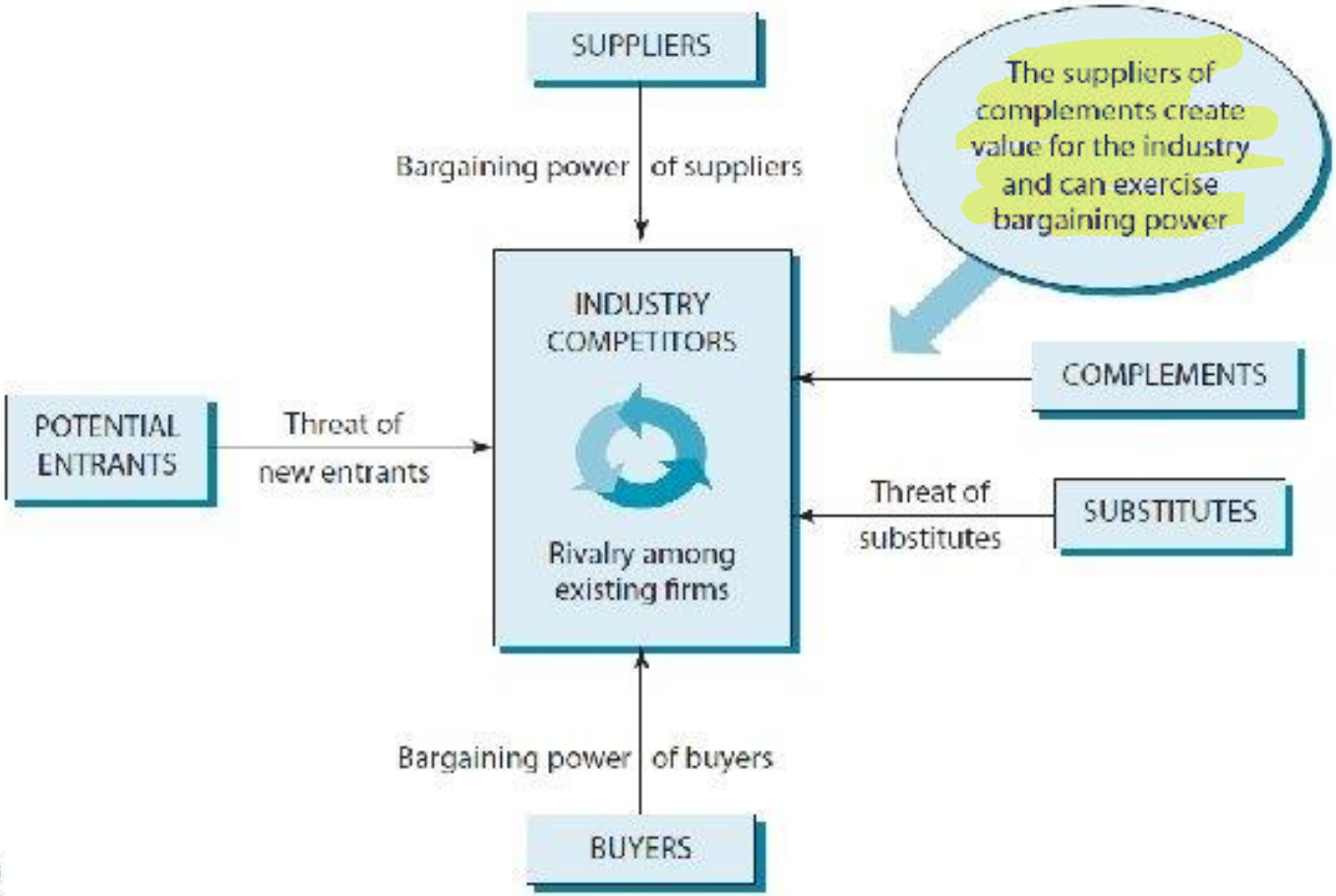
How General is the Life-Cycle Pattern?

- The duration of the life cycle varies greatly from industry to industry
- The tendency over time has been for life cycles to become compressed.
- This is especially evident in e-commerce.
- Businesses such as online gambling, business-to-business online auctions, and online travel services have gone from initial introduction to apparent maturity within a few years.
- "Competing on internet time" requires a radical rethink of strategies and management processes.

- Patterns of evolution also differ.
- Industries supplying basic necessities such as residential construction, food processing and clothing may never enter a decline phase because obsolescence is unlikely for such needs.
- Some industries may experience rejuvenation of their life cycle.
- An industry is likely to be at different stages of its life cycle in different countries.

- Although the automobile markets of the E.U., Japanese, and U.S. have entered their decline phase, those of China, India, and Russia are in their growth phases.
- Multinational companies can exploit such differences: developing new products and introducing them into the advanced industrial countries, then shifting attention to other growth markets once maturity sets in.

Five Forces or Six?
Introducing Complements



Strategic group

- A strategic group is the group of firms in an industry following the same or a similar strategy along the strategic dimensions.
- These strategic dimensions might include product range, geographical breadth, choice of distribution channels, level of product quality, degree of vertical integration, choice of technology and so on.

Strategic group analysis segments an industry on the basis of the strategies of the member firms.

- By selecting the most important strategic dimensions and locating each firm in the industry along them, it is possible to identify groups of companies that have adopted more or less similar approaches to competing within the industry.
- Strategic group analysis developed out of initial work on the domestic appliance and brewing industries.
- Concerned with analyzing differences in profitability among firms.

- The basic argument is that mobility barriers between strategic groups permit some groups of firms to be persistently more profitable than other groups.
- The proposition that profitability differences within strategic groups are less than differences between strategic groups has not received robust empirical support.
- The members of a strategic group, although pursuing similar strategies, are not necessarily in competition with one another.

- Strategic group analysis is very useful in identifying strategic niches within an industry and the strategic positioning of different firms; it is less useful as a tool for analyzing inter firm profitability differences.

Strategic Groups Within Industries

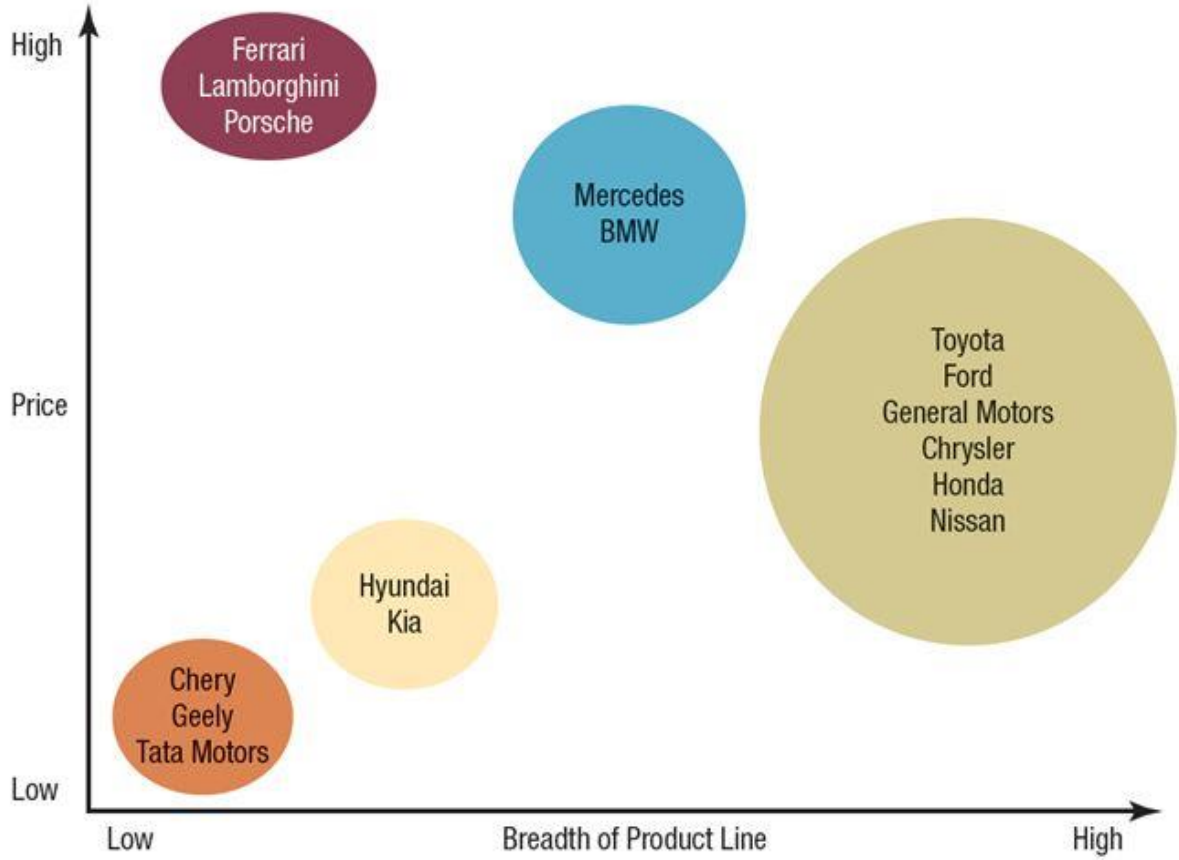
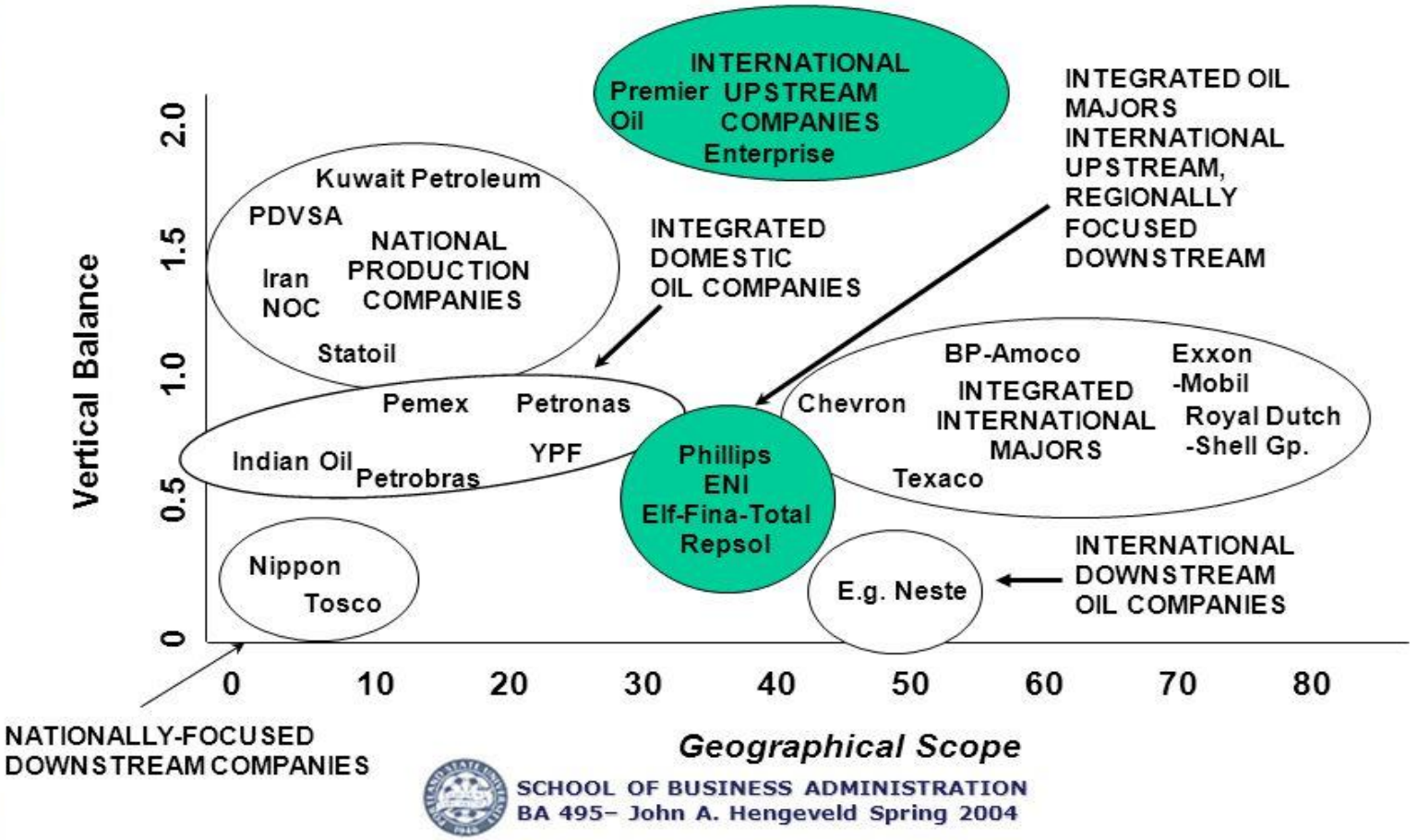


Exhibit 2.7 The World Automobile Industry: Strategic Groups

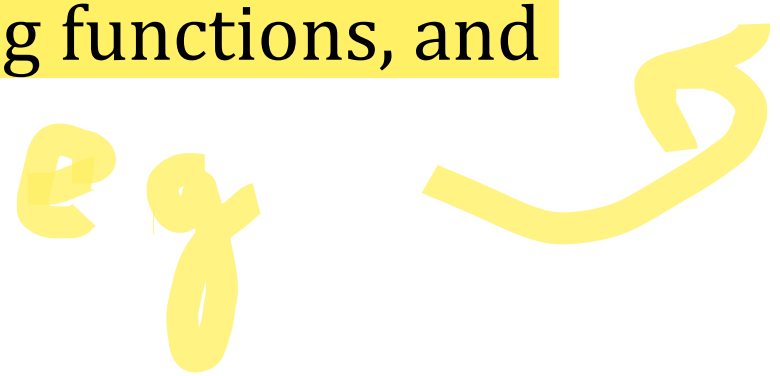
Note: Members of each strategic group are not exhaustive, only illustrative.

Strategic Groups Within the World Petroleum Industry



What Is a Value Chain?

- A value chain is a business model that describes the full range of activities needed to create a product or service.
- For companies that produce goods, a value chain comprises the steps that involve bringing a product from conception to distribution, and everything in between—such as procuring raw materials, manufacturing functions, and marketing activities.



Value-chain analysis

- A company conducts a value-chain analysis by evaluating the detailed procedures involved in each step of its business.
- The purpose of a value-chain analysis is to increase production efficiency so that a company can deliver maximum value for the least possible cost.
- A value chain can help a company to discern areas of its business that are inefficient, then implement strategies that will optimize its procedures for maximum efficiency and profitability.

Porter splits a business activities into two categories, "primary" and "support"

Primary Activities: Consist of five components, and all are essential for adding value and creating competitive advantage

- **Inbound logistics** include functions like receiving, warehousing, and managing inventory.
- **Operations** include procedures for converting raw materials into a finished product.
- **Outbound logistics** include activities to distribute a final product to a consumer.
- **Marketing and sales** include strategies to enhance visibility and target appropriate customers—such as advertising, promotion, and pricing.
- **Service** includes programs to maintain products and enhance the consumer experience—like customer service, maintenance, repair, refund, and exchange.

Support Activities

The role is to help make the primary activities more efficient.

- **Procurement concerns** how a company obtains raw materials.
- **Technological development** is used at a firm's research and development (R&D) stage—like designing and developing manufacturing techniques and automating processes.
- **Human resources (HR)** management involves hiring and retaining employees who will fulfill the firm's business strategy and help design, market, and sell the product.
- **Infrastructure** includes company systems and the composition of its management team—such as planning, accounting, finance, and quality control.