

Marketing Science no.7



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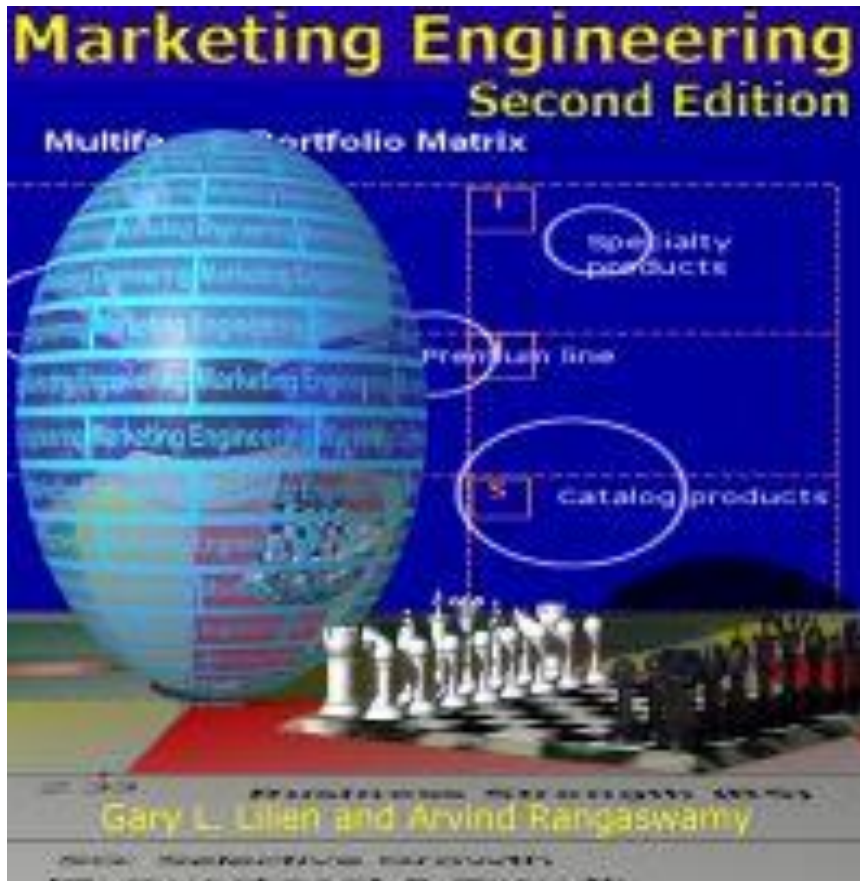
University of Tsukuba,
Grad. Sch. of Sys. and Info. Eng.

Instructor: Fumiyo Kondo

Room: 3F1131

kondo@sk.tsukuba.ac.jp

Strategy Concepts and Tools



- ☐ Market Demand Analysis
- ✓ Product Life Cycle
- ☐ Cost Dynamics

Product Life Cycle



The **life-cycle concept** comes from:

- **Biological life** forms are born, grow, mature, and die.
- **Many human enterprises** (like the Roman Empire) have a birth, a heyday, and a decline or death.

Product Life Cycle

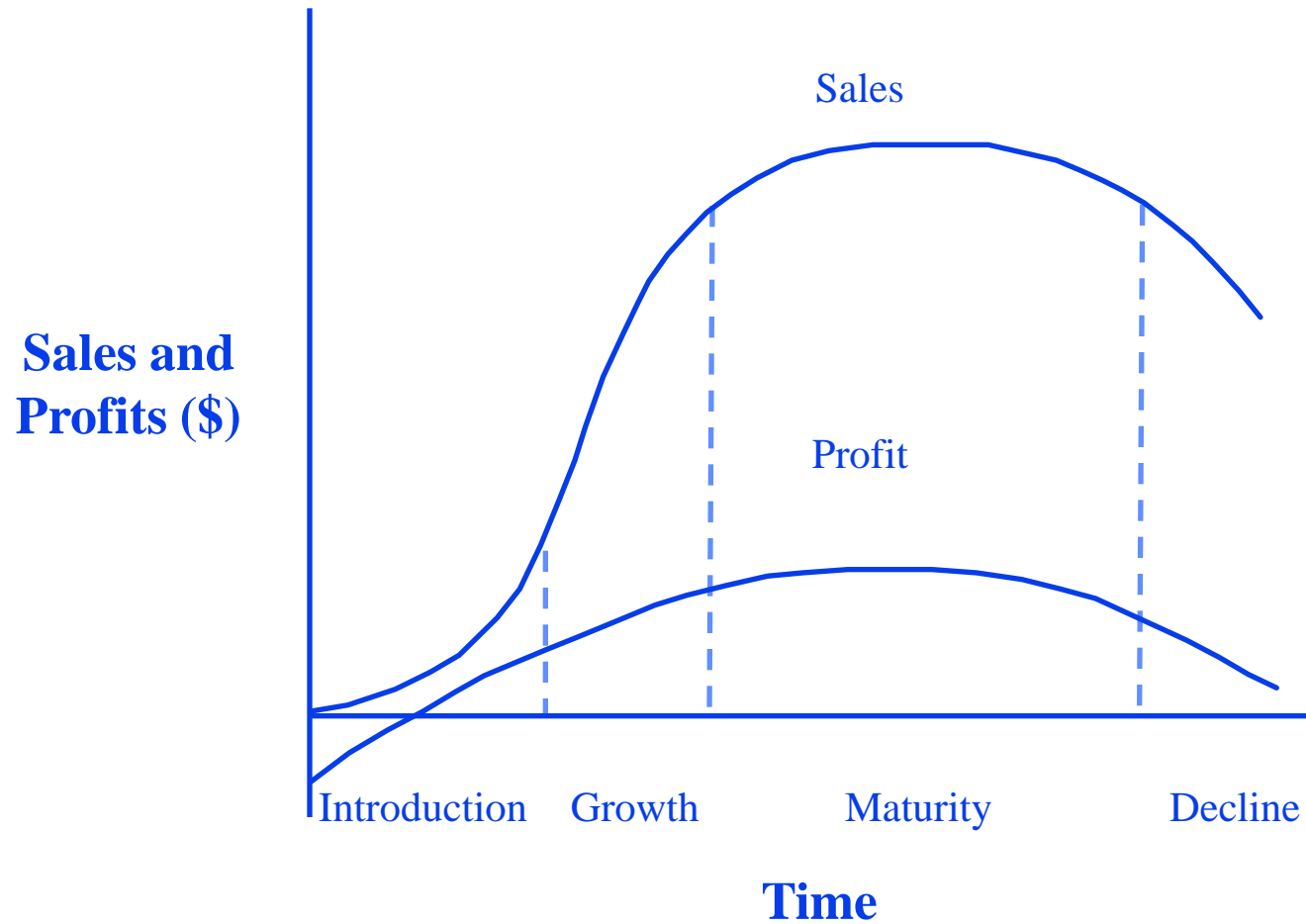


Using **life cycle concept**, the firm tries

- to **recognize distinct phases** in the product sales history and its market
- to **develop strategies** appropriate to those stages products strategy periodically.

Because a product's **sales position** and **profitability** can be expected to **change over time**, the firm **needs to revise its strategies**.

Product Life Cycle



Length of Product Life Cycle



- **long** ... for such **commodity** items as salt, peanut butter, and wine
- **short** ... for **more differentiated** products such as California wine coolers and Darth Vades Halloween masks

Factors Affecting the Length and Form of Product Life Cycle



- **changing needs and wants**
- **changes in technology** that lead to close substitutes
- **new product adoption speed** in a market

Important Aspect of Product Life Cycle



By using the life cycle,
firms can **anticipate**
how sales might **evolve for a product**,
and they can **develop strategies** to
influence those sales.

Strategy example by PLC stage



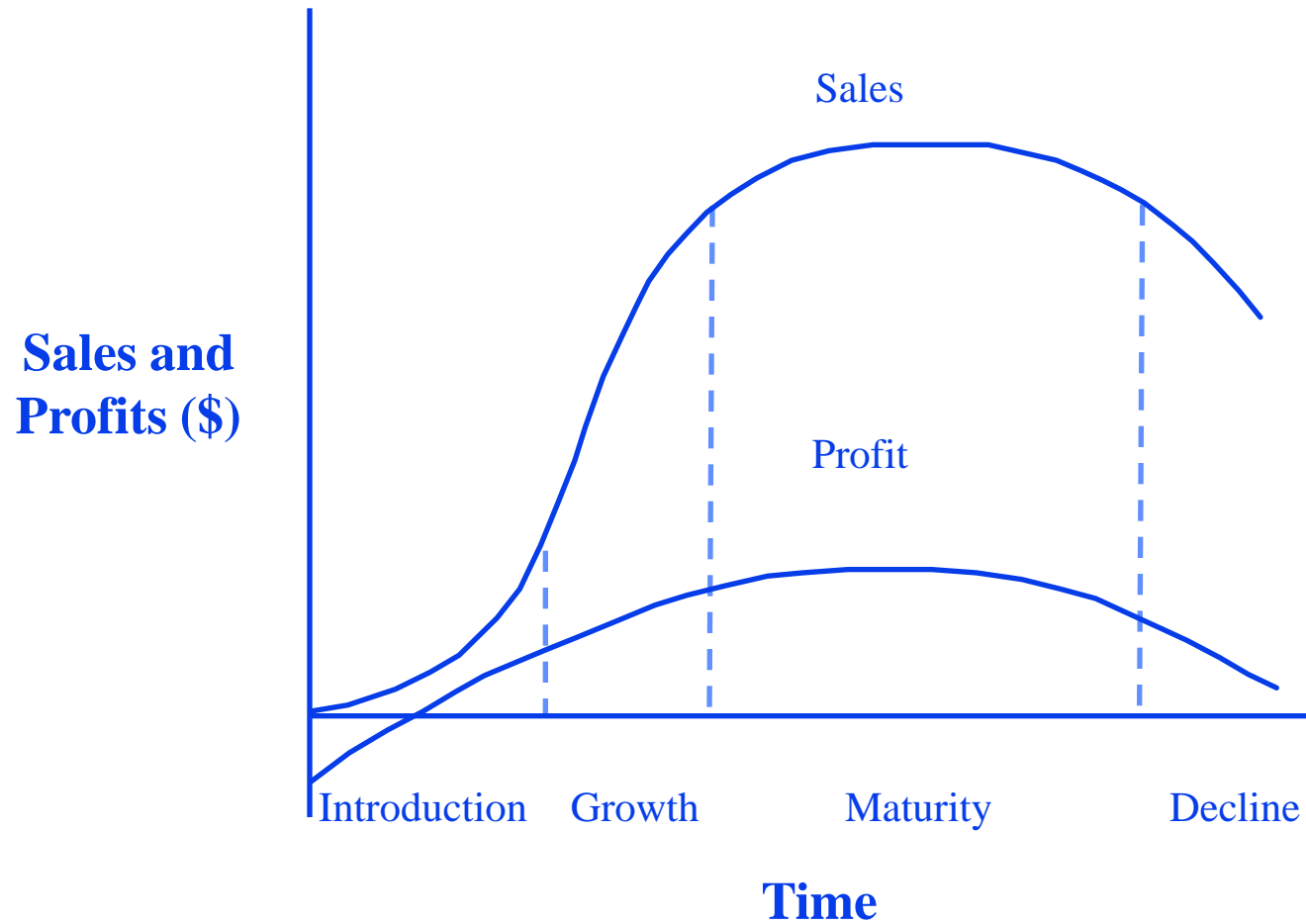
- In the introductory stage, the firm should devote considerable resources toward **advertising** to **increase customer awareness** of the new product.
- In the mature stage, the firm should devote resources to **differentiating** and **positioning** its offering with respect to those of competitors.

Four Stages of PLC



- The **sales history** of a typical product is portrayed as an **S-shaped sales curve** .
- This curve is typically divided into 4 stages known as
introduction, growth, maturity, & decline.

Product Life Cycle



Introduction Stage



When the product is introduced in the market,
growth is slow.

The profit curve in this **introduction stage**
shows **profits** as **low** or **negative**

because of the **heavy expenses** of **product introduction.**

Growth Stage



Growth is a period of
rapid market acceptance and
substantial profit improvement..

Maturity Stage



- **Maturity** is a period of **slowing sales growth** because **accepted by most** of its potential buyers.
- **Profits peak** in this period and **start to decline** because of increased **marketing outlays** needed to **sustain the product's position** against competition.

Decline Stage



- **Decline** is the period when sales show a **strong downward drift**.
- **Profits** erode toward **zero**.

Calculating Power Example



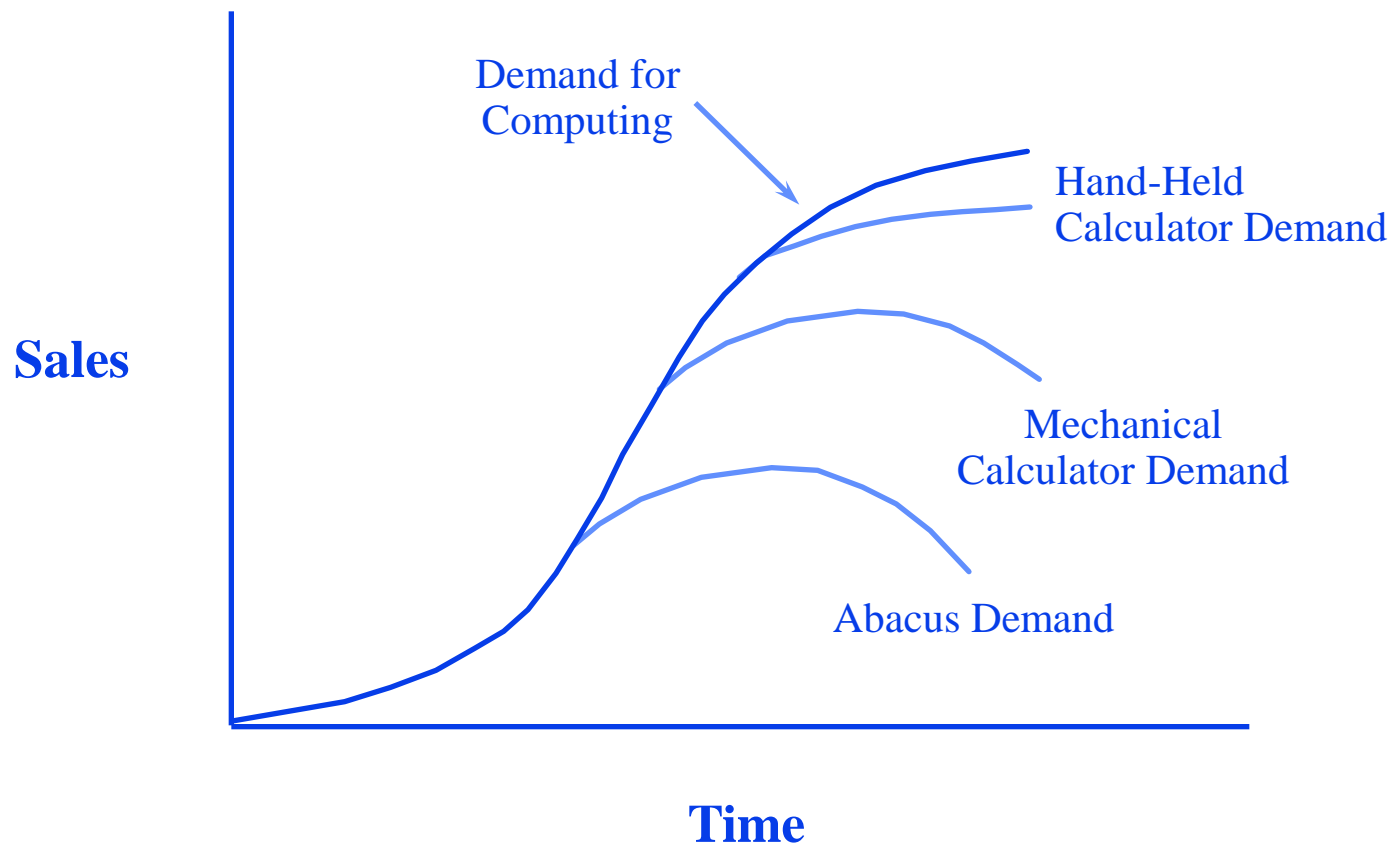
- Assume that a **human need** or **want**
(e.g., **calculating power**) exists and that a **product** (e.g., a **calculator**) satisfies that need.

sequence of technology cycles


within an overall demand cycle

- Next chart shows how **different technologies** can **successively substitute** for one another.

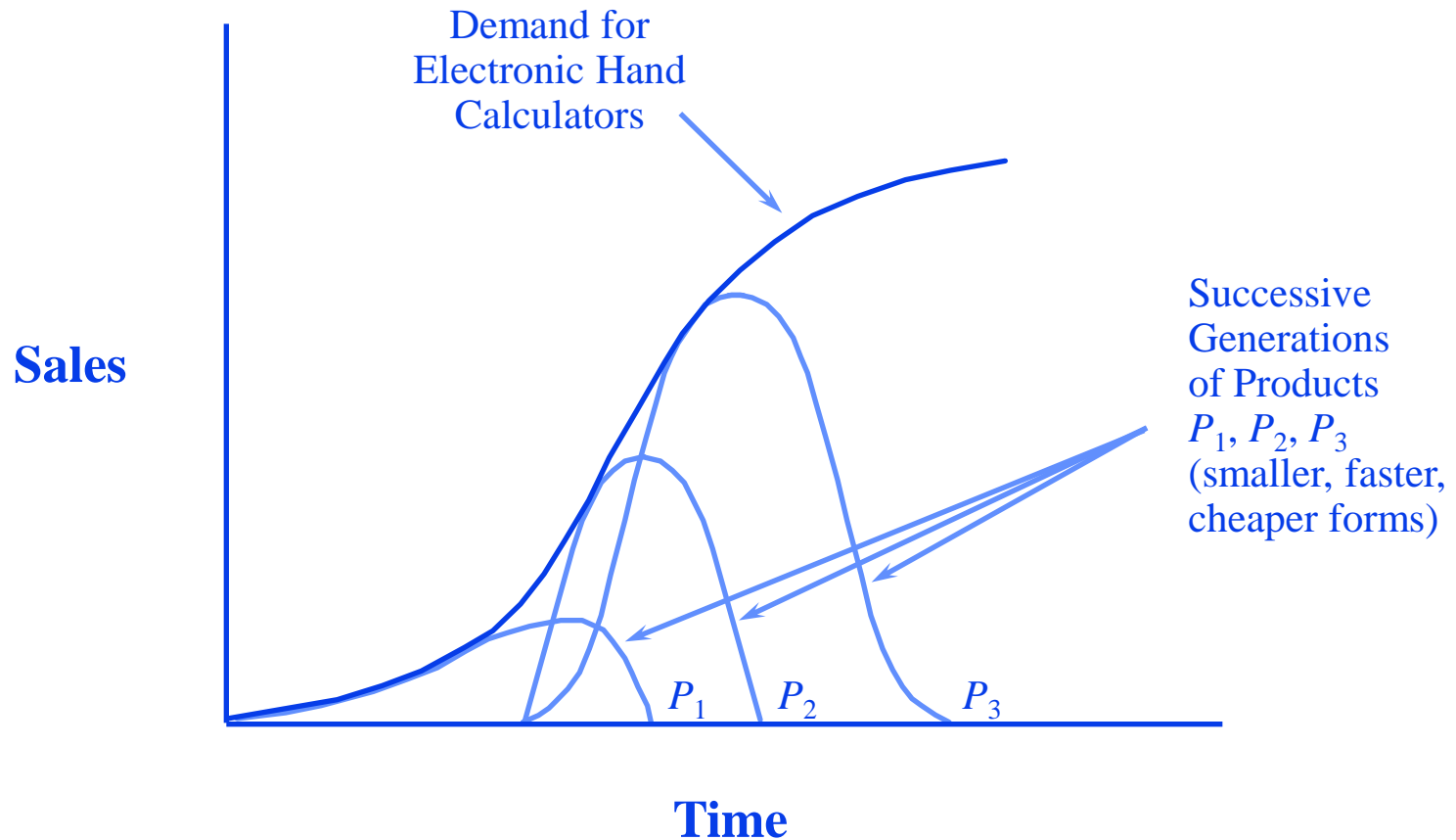
Technology Substitution



Calculating Power Example

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- Next chart breaks things down further, showing how **successive product forms** can **replace one another** within the context of a single technology cycle.

Life Cycles and Product Generations



Uneven empirical evidence the existence and applicability of PLC



Rink and Swan (1979) identified 12 types of product life-cycle patterns.

- Cox (1967) studied the life cycles of **754 ethical drug products** and found that the most typical form was a **cycle-recycle pattern**.

He explains that the **second hump** in sales is caused by a **promotional push** during the decline phase.

Uneven empirical evidence the existence and applicability of PLC

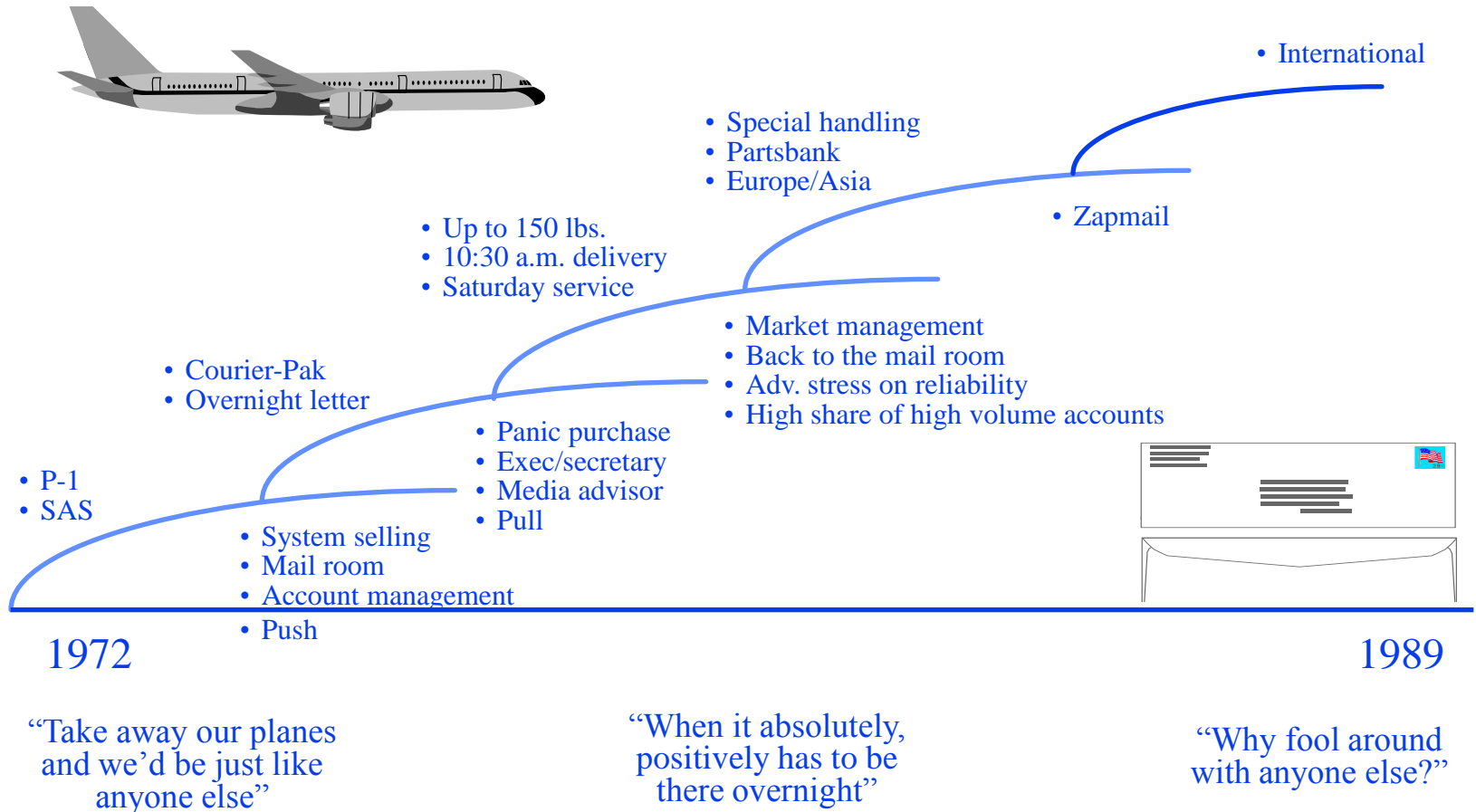


- Buzzers (1966) reported a scaloped life-cycle pattern

Exhibit 5.13 represents a succession of life cycles based on

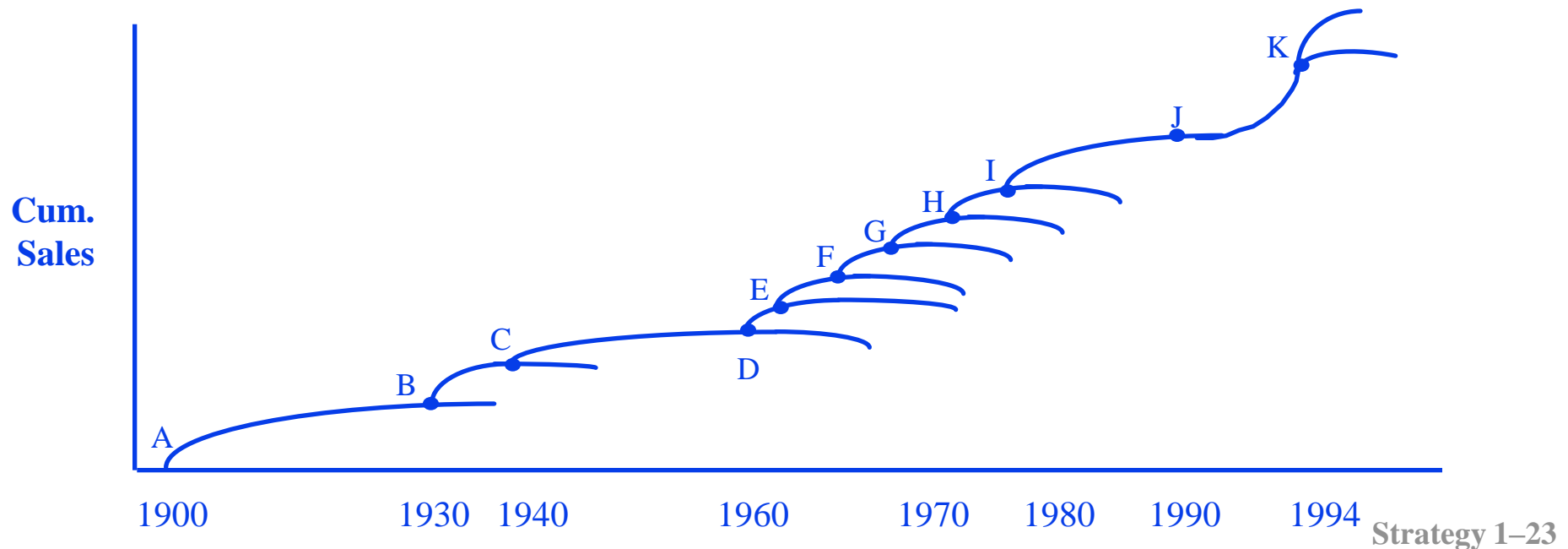
the **discovery of new product characteristics, new uses, or new markets.**

Federal Express— Product Life Cycle



The Life Cycles of Gillette Razor Blades

Blade	Year	Blade	Year
A. Original Gillette blade	1903	G. Platinum-Plus blade	1969
B. Blue blade	1932	H. Trac II	1971
C. Thin blade	1938	I. ATRA	1977
D. Super Blue blade	1960	J. Sensor	1990
E. Stainless Steel blade	1963	K. Sensor Excel	1994
F. Super Stainless Steel blade	1965		



Elements to affect PLC




- Harrell and Taylor (1981) and Thorelli and Burnett (1981) found that

growth rates are only **one aspect** of PLC elements.

- market innovation, market concentration, competitive structure, economic cycles, supply constraints, and replacement sales** affect the structure of the life cycle as well.

Elements to affect PLC



Research results are further confounded by differences in the **level of product-aggregation** and by **difficulties** with **new product definition**.

Typically there are **three possible aggregation levels**:

product class (cigarettes),
product form (plain filter cigarettes), and
brand (Philip Morns, regular or nonfilter).

Product classes



- **Product classes** have the **longest** life histories, longer than particular product forms, and certainly longer than most brands.
- Many **product classes sales** can be expected to continue in the mature stage for an **indefinite duration** because they are highly related to population (cars, perfume, refrigerators, and steel).

Product forms



- **Product forms** tend to exhibit the standard PLC histories more faithfully.

- Product forms,

such as the **dial telephone** and **cream deodorants**,

seem to pass through a regular history of

introduction, rapid growth, maturity, and decline.

Brand's sales history



- A brand's sales history can be erratic.
- This is due to **changing competitive strategies** and **tactics**, which can produce substantial **ups and downs** in sales and market shares, even to the extent of causing a mature brand to suddenly exhibit another period of rapid growth.

Forecasts of stage transitions & phase duration



- There are two life-cycle problems:
the forecasts of stage transitions and
phase duration.
- Lambkin and Day (1989) explicitly develop
such a model to describe and explain the
product life cycle.

Forecasting phase change phase length



- Lambkin and Day (1989) methods and the like **typically rely on data** from one phase to forecast the timing and length of the next stage.
- Accurate long-range forecasting is quite difficult, and little is known about **the length and sequence of life-cycle phases** (Day 1981).
- The problems of **forecasting phase change and phase length** are made more difficult by the widely held belief that **life cycles are becoming shorter**.

Important element of PLC analysis



- **Life-cycle analysis** is realistically viewed as only one important element in the overall analysis of marketing opportunities.
- The **life cycle** acts as a **classification device** and suggests conditions under which market growth, for example, may occur.
- During **market growth**, **competitors are better able to enter the market**, and **new opportunities** for product offerings are available in selected market segments.

Important element of PLC analysis



- **Price** and **advertising elasticities** change over the product life cycle as well.
- While there continues to be much discussion concerning definition and measurement,
the **product life cycle** is clearly **critical** in determining appropriate marketing strategies (Thietart and Visas 1984).

Possible Business Strategies Guiding New Product Development



SUMMARY



- We introduced the **notion of marketing strategy** as an **umbrella concept** within which firms must make marketing decisions.
- We stressed the **interconnectedness** of all these decisions (particularly functional interactions, synergism between marketing-mix elements, and functional interactions).

SUMMARY



- To devise a marketing strategy, we must **define a market appropriately** and **assess and forecast** the demand for that market.
- We outlined the **most common** and **emerging methods of forecasting sales** for established products.

SUMMARY



- The structure and dynamics of markets have led marketer to develop two other key planning concepts: the **product life cycle** and **cost dynamics**
- The **product life cycle** makes using traditional time-series and econometric **forecasting methods difficult**.