Product Life Cycle

Figure 7.5: Historical Market Penetration

- Cars per 100
- Radio %
- Television
- Telephone
- VCR
- Cable TV

Four Phases

Figure 7.7: Industry Demand during the Four Phases of the Product Life Cycle
Introduction
- Customer education and development
  - Total solution
  - Government, regulator education
  - Mom & Pops
  - Free samples
- First-mover advantages and disadvantages
  - Early brand name building
  - Learning curve
  - "Wrong" customer base
  - Obsolete technology

Growth
- High profits
- Brand name creation
- Efficient scale
- Mass market distribution starts
- Exports
- New varieties from outside industry

Maturity
- Non-durables converge upward
- Durables may crash (CB radios)
- Increasing importance of product variety
- Cost minimization
  - Plant size
  - Distribution
- Threat of "caught in the middle"
- Shakeout
- Imports
Decline

- Candy cigarettes, CFCs, lead paint
- Strategies
  - Switch to related products
  - Exit
  - Harvest
  - Consolidation
- First mover advantages in choosing strategy

Durable Goods

- Transition to Maturity
  - Non-durables (pharmaceuticals, bagels) have a "soft landing"
  - Durables (CB radio, Desktop PCs) may crash
- Over-capacity and shakeout for durables
- Exacerbated by technological improvements
- Positioning critical

Major Life Cycle Characteristics

- Customers
- Number of firms
- Profits
- Product varieties
- Distribution
- Foreign trade
- Marketing
### Table 7.2: Life Cycle Characteristics

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>Small, growing fast</td>
<td>Small</td>
<td>Fast</td>
<td>Large Reputation</td>
<td>Innovator, Educator, Flexible, Total solution</td>
<td>Negative</td>
<td>Few and Growing</td>
<td>One-stop shopping</td>
<td>High</td>
<td>High</td>
<td>Low exports</td>
<td>Early Adopter</td>
<td>Low</td>
<td>High</td>
<td>Demand, Customer satisfaction, brand equity, pricing, promotion, brand and market</td>
</tr>
<tr>
<td>Growth</td>
<td>Large</td>
<td>Large</td>
<td>Medium</td>
<td>Medium</td>
<td>Existing Reputation Marketing, Quality production, Reputation for quality</td>
<td>Low</td>
<td>Increases</td>
<td>Various outlets</td>
<td>High</td>
<td>Medium falling</td>
<td>Increasing exports</td>
<td>Late Majority</td>
<td>Medium</td>
<td>Medium</td>
<td>Marketing, Relative performance, product performance, product improvement, target markets, brand equity, brand and market</td>
</tr>
<tr>
<td>Maturity</td>
<td>Small, exit</td>
<td>Large</td>
<td>Fast</td>
<td>Medium</td>
<td>Existing Reputation Marketing, Quality Production, Reputation for quality</td>
<td>Low</td>
<td>Increases</td>
<td>Superstores, direct sales</td>
<td>Low</td>
<td>High</td>
<td>Initially exports, then imports</td>
<td>Late Majority</td>
<td>High</td>
<td>High</td>
<td>Cost reduction, new markets, competition threats, Satisfy market needs, tactical business</td>
</tr>
<tr>
<td>Decline</td>
<td>Small, exit</td>
<td>Large</td>
<td>Slow</td>
<td>Low</td>
<td>Reputation for quality</td>
<td>Low</td>
<td>Increases</td>
<td>Minimum cost</td>
<td>Low</td>
<td>Negative</td>
<td>Imports</td>
<td>Laggard</td>
<td>High</td>
<td>High, declining</td>
<td>Cost reduction, new markets, competition threats, Satisfy market needs, tactical business</td>
</tr>
</tbody>
</table>

### Figure 7.18: Maximum Building Heights

![Maximum Building Heights](image)
Otis Elevator

- Make or buy best technology
- Stay focused on one industry
- Commitment to be technological leader
- A century of successful innovation