New Product Development and Product Life Cycle

New Product Development

refers to original products, product improvements, product modifications, and new brands developed from the firm's own research and development.

New Product Development Process

1. Idea generation
   - Idea generation
2. Idea screening
3. Concept development and testing
4. Marketing strategy
5. Business analysis
6. Product development
7. Test marketing
8. Commercialization

1. Idea Generation

Idea Generation is a systematic search for ideas

Ideas should be need based:
- Are there unfulfilled current consumer needs (gap)?
- Future needs?

Sources:
- Internal
- External (customers, competitors, suppliers, design companies)
2. Idea Screening

Identify good ideas and dropping poor ones.

- Describe and estimate:
  - Product, value proposition, target market, competition, market size
  - Price, development time & costs, manufacturing cost, rate of return

- Evaluate the idea against a set of general company criteria:
  - Is the product useful to consumers? Our company?
  - Does it blend in our strategies and objectives?

3. Concept Development and Testing

- product idea → product concept
  - product concept: detailed version of the idea in meaningful consumer terms
- Testing the product concepts with target customers:
  - Use primary data (e.g. focus groups) to better define the product, target buyer, and to forecast likely demand.


Marketing Strategy
- target market, product positioning, sales / share / profit goals
- marketing budget, price, distribution, communication
- long-term sales / profit goals, marketing mix

Business Analysis: Review of product sales, costs, and profits projections to see if they meet company objectives.

➢ If YES, move to 6. Product Development

7. Test Marketing

Standard: Full marketing campaign in a small number of representative cities.

Controlled: Panel of shoppers and a few stores that participate for a fee.

Simulated: In a simulated shopping environment to a sample of consumers.
Test Marketing

Advantages:
- Can suggest areas for improvement
- Reduces risk of bigger (national) failure

Disadvantages:
- Standard & controlled: Expensive, takes time
  - Provides information to competitors
  - May get noisy information (e.g. competitors interfere)
- Simulated: less reliable, less realistic

Examples of Test-Marketing Misfires

P&G “Always”
test marketed in Minnesota. Competitors responded with free products, coupons to consumers, and big discounts to retailers.

Dole “Fruit ’N Juice” Bars
test marketing showed excellent results. But before the product was introduced, four similar products were introduced by competitors.

Sources: Fortune; Sales and Marketing Management

8. Commercialization

Commercialization: Introducing the new product into the marketplace.
- Timing?
- Where?
- How?

The Product Life Cycle

PLC: Pattern of sales and profits of a product over time

- Product Development
- Introduction
- Growth
- Maturity
- Decline
- Sales
- Profits
- Time
Example: Music Industry

Other Shapes of PLC

Product Life Cycle

Characteristics and Strategies Along the PLC: Introduction Stage

PLC concept can be applied to
- Product Class / Category (e.g. electric vehicles)
- Product Form (e.g. passenger vehicles)
- Brand (e.g. Tesla)

Uses of PLC Analysis
- Resource allocation
- Strategy implications

Sales: Low
Costs: High per unit
Profits: Negative
Customers: Innovators
Competitors: Few or none
Marketing Goals: Create product awareness and trial, build primary demand
- Product: Offer a basic product
- Price: Cost-plus (or skimming, or penetration)
- Distribution: Build selective distribution
- Advertising: Build awareness among early adopters and channel members
Sales Promotion: Heavy -- to encourage trial
### Characteristics and Strategies Along the PLC: Growth Stage

<table>
<thead>
<tr>
<th>Category</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>Rapidly rising</td>
</tr>
<tr>
<td>Costs</td>
<td>Average</td>
</tr>
<tr>
<td>Profits</td>
<td>Rising</td>
</tr>
<tr>
<td>Customers</td>
<td>Early adopters</td>
</tr>
<tr>
<td>Competitors</td>
<td>Increasing in number</td>
</tr>
<tr>
<td>Marketing Goals</td>
<td>Maximize market share, build brand loyalty</td>
</tr>
<tr>
<td>- Product</td>
<td>Extend line / variety, improve service / warranty</td>
</tr>
<tr>
<td>- Price</td>
<td>Price to penetrate market (or cont. skimming layers)</td>
</tr>
<tr>
<td>- Distribution</td>
<td>Build intensive distribution</td>
</tr>
<tr>
<td>- Advertising</td>
<td>Build awareness and interest in the mass market</td>
</tr>
<tr>
<td>Sales Promotion</td>
<td>Reduce -- to take advantage of increasing demand</td>
</tr>
</tbody>
</table>

### Growth Stage

- New competitors enter; market will expand
- Firms will
  - improve quality, add features
  - enter new segments, new channels

### Characteristics and Strategies Along the PLC: Maturity Stage

<table>
<thead>
<tr>
<th>Category</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>Reaches peak</td>
</tr>
<tr>
<td>Costs</td>
<td>Low</td>
</tr>
<tr>
<td>Profits</td>
<td>High</td>
</tr>
<tr>
<td>Customers</td>
<td>Early and late majority</td>
</tr>
<tr>
<td>Competitors</td>
<td>Many; stable or starting to decline</td>
</tr>
<tr>
<td>Marketing Goals</td>
<td>Maximize profit while defending market share, maintain loyals, attract switchers</td>
</tr>
<tr>
<td>- Product</td>
<td>Variety of models</td>
</tr>
<tr>
<td>- Price</td>
<td>Price to match or beat competitors</td>
</tr>
<tr>
<td>- Distribution</td>
<td>Build more intensive distribution</td>
</tr>
<tr>
<td>- Advertising</td>
<td>Emphasize brand differences and benefits</td>
</tr>
<tr>
<td>Sales Promotion</td>
<td>Increase to encourage switching</td>
</tr>
</tbody>
</table>

### Maturity Stage

- Many firms with many products to sell
- Successful products evolve to meet changing needs:
  - Modify the market (increase usage, users, uses)
  - Modify the marketing mix
    - Product: change quality, features, style etc
    - Price
    - Promotion
    - Place

  Some about new segments and new channels
Characteristics and Strategies Along the PLC:

Decline Stage

- Sales: Declining
- Costs: Low
- Profits: Declining
- Customers: Laggards
- Competitors: Decreasing in number, few
- Marketing Goals: Reduce expenditure and milk the brand
  - Product: Shorten line / variety
  - Price: Keep or cut price
  - Distribution: Decreasing intensity
  - Advertising: Reduce to minimum only to keep loyal customers
  - Sales Promotion: Reduce to minimum level

- Reasons for decline?
- Strategies:
  - Maintain
  - Harvest
  - Drop
  - Revitalize: Stretching the curve
    Increase usage, users, uses

Never Too Late To Come Back

PLC Analysis: Conclusions

- It is beneficial, has uses
- but difficult for forecasting
  -- depends on the product, external factors, individual firm