New Product Development: Business Opportunity Profile (BOP)

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New Product Development

Objective:
- Key Marketing Concepts
- Technical Instrument

Example:
- PDA: Short for personal digital assistant, a handheld device that combines computing, telephone/fax, Internet and networking features. A typical PDA can function as a cellular phone, fax sender, Web browser and personal organizer. Unlike portable computers, most PDAs began as pen-based, using a stylus rather than a keyboard for input. This means that they also incorporated handwriting recognition features. Some PDAs can also react to voice input by using voice recognition technologies. PDAs of today are available in either a stylus or keyboard version.
New Product Development

- Invention is a term applied to the creation of something that did not exist before.
  1. Subject Matter- represents nothing more than an idea or concept, or is simply a starting point for future research
  1. What did applicants invent?
  2. Level of "real world" value
    2. Useful- “it most work” (exceptions: it could not be illegal or unsafe)
    3. New- Compare to prior art

- Conceptualizing the Product
  Theory => Concept => Subject Matter => Product Development => Prototyping

Example: Apple Computer, which introduced the Newton MessagePad in 1993, was one of the first companies to offer PDAs. Shortly thereafter, several other manufacturers offered similar products. Today, one of the most popular brands of PDAs is the series of Palm Pilots from Palm, Inc.
New Product Development

- **Invention Characteristic**
  - Incremental:
    - Safety
    - Efficacy
    - Utility
  - Distinctive
  - Different
  - Uniqueness
  - Shifting
New Product Development: Value Proposition

What …

- Problem-
- Need-
- Want-
- Pain-

is been address?
New Product Development: Value Proposition

How is this problem/need/pain being addressed?
1. ________________________________________________________________
2. ________________________________________________________________
3. ________________________________________________________________

Why is your alternative…
1. Better________________________________________________________
2. Cheaper______________________________________________________
3. Effective______________________________________________________
4. Unique_______________________________________________________
5. Safer________________________________________________________
6. Different______________________________________________________
New Product Development: Define your Competitive Advantage

- What makes my product unique?
- Learning Curve
- What resources do I have that shift me above my competitors?
- Economies of Scales
- Product Cost
- Product Differentiation
- Patent
- Intellectual Property
What are the current and future needs of the customers your product serves?

**Product Features**
- Core Features
  - Reliable
  - Accountability
  - Efficient and Effective
  - Meet the Standard
  - Comply with the Law
  - Could be upgraded
  - Maintenance
  - Customer Service Support

- Secondary Features

**Customer Needs**
- Core Needs
  - 100% useful, 0 downtime
  - Timely: Delivery
  - Result Expected
  - Customer Standard
  - Perception
  - Continuity
  - Just when I needed
  - 0 noise on communication channel
  - Satisfaction guaranteed
Matching Product Features with Customer Needs

- **Product Features**
- **Customer Needs** - Clearly Identify Customer Needs

Diagram showing the connection between product features and customer needs.
# PDA comparison

<p>|                       | Palm T|X Handheld | Hewlett Packard iPAQ hx2495 Pocket PC |
|-----------------------|------------------------------------------|--------------------------------------|
| <strong>Date</strong>              | 12 October, 2005                         | 26 September, 2005                   |
| <strong>Price</strong>             | $262 - $456                              | $21 - $398                           |
| <strong>Width</strong>             | 3.08 in.                                 | 3.01 in.                             |
| <strong>Depth</strong>             | 0.61 in.                                 | 0.65 in.                             |
| <strong>Height</strong>            | 4.76 in.                                 | 4.71 in.                             |
| <strong>Weight</strong>            | 5.25 oz.                                 | 5.8 oz.                              |</p>
<table>
<thead>
<tr>
<th>Key Features &amp; Technical Features</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
</tr>
<tr>
<td><strong>Operating System</strong></td>
</tr>
<tr>
<td><strong>Processor</strong></td>
</tr>
<tr>
<td><strong>Installed Memory</strong></td>
</tr>
<tr>
<td><strong>Display</strong></td>
</tr>
<tr>
<td><strong>Processor Type</strong></td>
</tr>
<tr>
<td><strong>Processor Speed</strong></td>
</tr>
<tr>
<td><strong>Input Method</strong></td>
</tr>
<tr>
<td><strong>Interface Type</strong></td>
</tr>
<tr>
<td><strong>PDA Special Features</strong></td>
</tr>
<tr>
<td><strong>Security Features</strong></td>
</tr>
<tr>
<td><strong>Expansion Slot</strong></td>
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</tbody>
</table>
Who is my Customer?

- **Customer**: Entity that receives or consumes products (goods or services) and has the ability to choose between different products and suppliers.
- **Market** for a particular item is made up of existing and potential customers who need it and have the ability and willingness to pay for it. (Niches)
- **Market Segmentation**: Process of defining and sub-dividing a large homogenous market into clearly identifiable segments having similar needs, wants, or demand characteristics.
Who is my Customer?

◆ Segmentation Variables
  – Demographics
    ◆ Age, gender, income, ethnicity, occupation, religion, race, social class, family size;
  – Psychographics
    ◆ Lifestyles, interests, opinions, behavior, perceptions and attitudes;
  – Geographic
    ◆ Zip codes, city, county and state size, terrain, climate, region, urban, suburban, rural; natural resources;
  – Behaviorist Variables
    ◆ Volume usage, benefit expectations, brand loyalty.
User Segmentation Workshop

- User segmentation is the determination of the end user requirements compared to the type of access device(s) required to fulfill the work to be done.

A User Segmentation Workshop is an integral part of the assessment which explores the various decisions that are to be developed regarding the technology available. The planning horizon looks at the duration of the existing refresh strategy.

The initial step in the user segmentation process is to list all of the technologies in place currently and rate the support and costs as low, medium, or high. Some customers have used a more definitive rating scale of 1 through 4. After this is performed, the current state environment is listed and the support rating is mapped.

The next step is to list all of the technologies available to deploy and discuss the implication to the organization over the appropriate planning horizon. This technology could include the following devices:

- desktops (all form factors)
- laptops (all form factors)
- tablets
- thin client (Citrix)
- thin client (blade)
- CRT vs. flat panel monitors
- PDA’s
- Blackberry
- Convergent devices
- Cell phones/pagers
- These devices are mapped against the support rating and the potential end-users that would be interested in adopting that particular technology.
New Product Development Strategies

Market Analysis

- What are the critical driving forces for change affecting the marketplace?
- What is the Time-to-Market?
- What is the product line Life Cycles?
- Establish a History of Change
- What are the key technologies in the market place?
- Are those technologies mature, developing or in a state of transition?
Top Five Handheld Device Vendors

- **Palm** maintained its position as the number 1 vendor worldwide.
- **HP** was the clear number 2 vendor, the result of filling in the gap created by Dell's imminent departure from the market. HP has also been experimenting with optimized handheld devices, including the iPAQ rx 4240 for multimedia and the iPAQ rx 5915 for GPS. Both devices carried a higher price point compared to simple handheld devices, but still moved the handheld devices in a new direction.
- **Mio** posted its fourth consecutive quarter of year-on-year growth, bucking the general trend of the industry and that of the other major vendors. To do this, Mio has relied on the popularity of its P550, P350, and A201 devices, all of which feature a GPS receiver, spreading beyond its home territory of Asia/Pacific and into nearby Europe and Japan. Only recently has the company begun targeting North America.
- **Dell** continued the phase-out of its Axim devices in 2007.
- **Fujitsu-Siemens Computers** took fifth place in the second quarter, and did so by concentrating its shipments primarily into Western Europe. While the company has offered both simple devices, like its C Series, and GPS and multimedia-enabled devices, like its N100 Series, it also recently began offering a competing converged mobile device with its T Series device.
PDA Market Continues Steep Decline

<table>
<thead>
<tr>
<th>Vendor</th>
<th>2Q07 Shipments</th>
<th>2Q07 Market Share</th>
<th>2Q06 Shipments</th>
<th>2Q06 Market Share</th>
<th>2Q07/2Q06 Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Palm</td>
<td>317,300</td>
<td>44.10%</td>
<td>475,000</td>
<td>37.60%</td>
<td>-33.20%</td>
</tr>
<tr>
<td>2. HP</td>
<td>168,800</td>
<td>23.50%</td>
<td>260,000</td>
<td>20.60%</td>
<td>-35.10%</td>
</tr>
<tr>
<td>3. Mio</td>
<td>97,691</td>
<td>13.60%</td>
<td>91,700</td>
<td>7.30%</td>
<td>6.50%</td>
</tr>
<tr>
<td>4. Dell</td>
<td>23,975</td>
<td>3.30%</td>
<td>132,050</td>
<td>10.40%</td>
<td>-81.80%</td>
</tr>
<tr>
<td>5. Fujitsu Siemens Computers</td>
<td>21,482</td>
<td>3.00%</td>
<td>28,529</td>
<td>2.30%</td>
<td>-24.70%</td>
</tr>
<tr>
<td>Others</td>
<td>89,682</td>
<td>12.50%</td>
<td>277,404</td>
<td>21.90%</td>
<td>-67.70%</td>
</tr>
<tr>
<td>Total</td>
<td>718,930</td>
<td>100.00%</td>
<td>1,264,683</td>
<td>100.00%</td>
<td>-43.20%</td>
</tr>
</tbody>
</table>

Source: IDC Worldwide Handheld QView, August 8, 2007
New Product Development Strategies

◆ Who are your current competitors?
  – Direct or Indirect

◆ Who Could be your future competitors (entities and/or technologies)?
  – Direct or Indirect

◆ What are they doing?
Commercialization process

- Execution / Strategy
  - Where are you now?
  - Where do you want to be?
  - How do you plan to get there?
  - Next steps?
Team/ Resources

– What other persons (skills) do you need assistance from?

– What resources do you have available?
  ◆ Technological
  ◆ Equipment
  ◆ Funds

– What additional resources, if any, do you need?
**SWOT Analysis**

SWOT analysis is a tool for auditing an organization and its environment. It is the first stage of planning and helps marketers to focus on key issues. SWOT stands for **strengths, weaknesses, opportunities, and threats.** Strengths and weaknesses are internal factors. Opportunities and threats are external factors.

**EXTERNAL Environment**
- Opportunity
- Threats

**INTERNAL Environment**
- Strengths
- Weaknesses
Cadence Innovation is an automotive supplier. The company provides design, engineering and manufacturing solutions. These solutions are designed for instrument panels, cockpits, painted exteriors, doors, door modules and cargo management systems.

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wide range of services</td>
<td>Lack of manufacturing facilities in low cost countries</td>
</tr>
<tr>
<td>Strong customer base</td>
<td>Inability of pay off debt</td>
</tr>
<tr>
<td>Wide geographic spread</td>
<td>Decline in revenues</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer spending trends</td>
<td>Intense competition</td>
</tr>
<tr>
<td>Demand for engineered plastics</td>
<td>Environmental regulations</td>
</tr>
<tr>
<td>Leverage technology to tap the industry trends</td>
<td>Pricing pressure from OEMs</td>
</tr>
</tbody>
</table>
### SWOT Analysis: DAIKIN Industries

<table>
<thead>
<tr>
<th><strong>Strengths</strong></th>
<th><strong>Weaknesses</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership in Japanese market</td>
<td>Lack of ducted air conditioning systems</td>
</tr>
<tr>
<td>Stable revenue growth</td>
<td>Low returns</td>
</tr>
<tr>
<td>Distribution strategy</td>
<td>Low inventory turnover ratio</td>
</tr>
<tr>
<td>Strong brand image</td>
<td></td>
</tr>
<tr>
<td><strong>Opportunities</strong></td>
<td><strong>Threats</strong></td>
</tr>
<tr>
<td>Strategic alliances</td>
<td>Price competition in air conditioners market</td>
</tr>
<tr>
<td>Air conditioning market in China and Europe</td>
<td>Maturing residential air conditioner market in Japan</td>
</tr>
<tr>
<td>Growing demand of fluorochemicals</td>
<td>Environmental Regulations</td>
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