

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 make my product unique?
- ◆ Learning Curve
- ◆ What resources I have that shift me above my competitors?
- ◆ Economies of Scales
- ◆ Product Cost
- ◆ Product Differentiation
- ◆ Patent
- ◆ Intellectual Property

Product Features



•Core Features →

•Secondary Features →

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

Customer Needs

◆What are the current and future needs of the customers your product serves?



•Core Needs

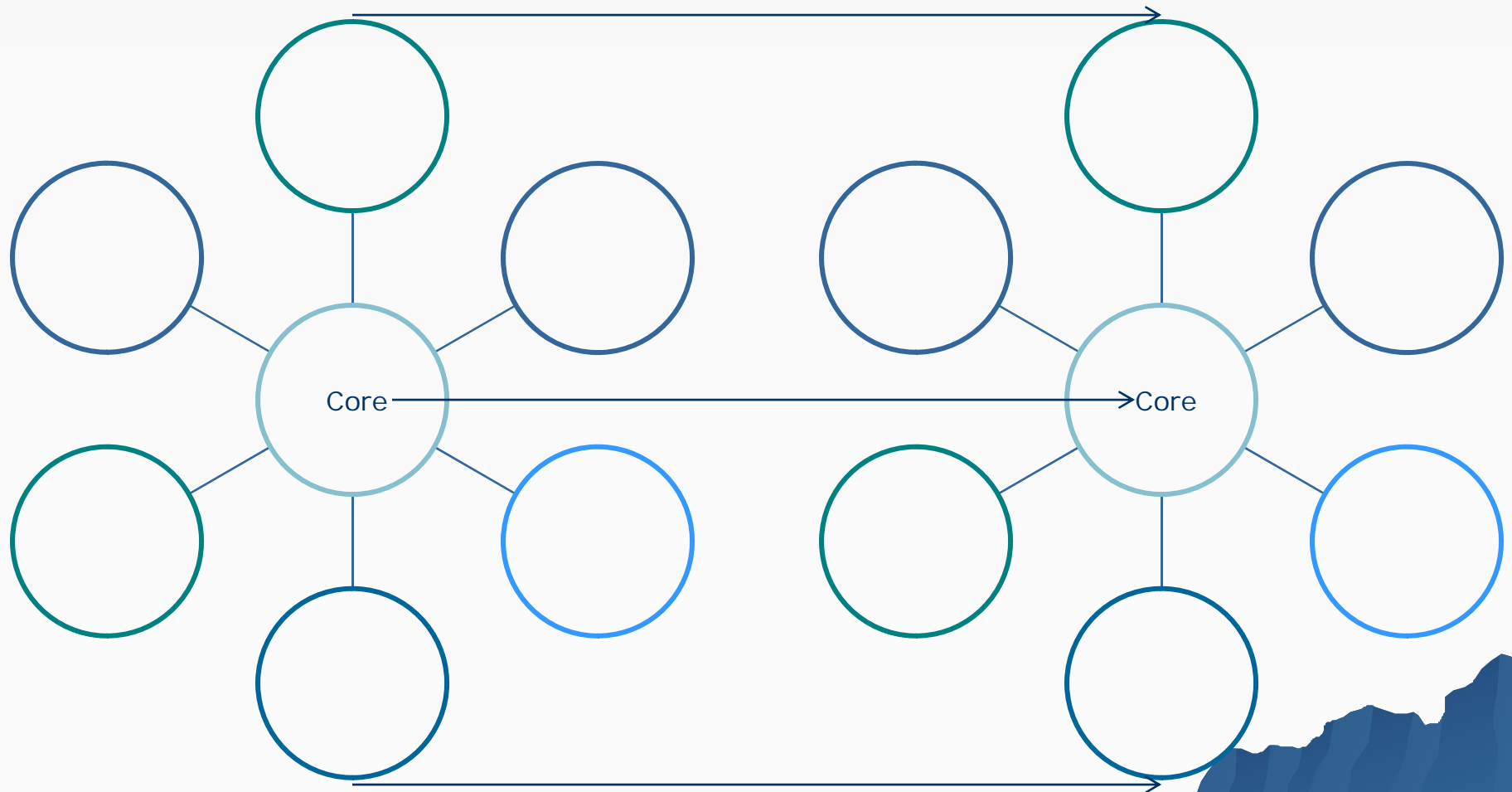
•Secondary Needs

- 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



PDA comparison



Palm T|X Handheld

12 October, 2005

\$262 - \$456

Width	3.08 in.
Depth	0.61 in.
Height	4.76 in.
Weight	5.25 oz.

Hewlett Packard iPAQ hx2495 Pocket PC

26 September, 2005

\$21 - \$398

Width	3.01 in.
Depth	0.65 in.
Height	4.71 in.
Weight	5.8 oz.



Key Features & Technical Features

Key Features & Technical Features		
<u>Type</u>	PDA	PDA
<u>Operating System</u>	Palm OS	Microsoft Windows Mobile 5.0
Processor	312 MHz Arm	520 MHz Intel XScale PXA270
<u>Installed Memory</u>	128 MB	64 MB
Display	16-bit (64k colors) Transflective Color TFT	16-bit (64k colors) Transflective Color TFT
Processor Type	Arm	Intel XScale PXA270
Processor Speed	312 MHz	520 MHz
<u>Input Method</u>	Touch Screen • 5-Way Navigator	Microphone • Touch Screen • 5-Way Navigator
<u>Interface Type</u>	USB • Bluetooth Wireless Technology • Infrared • Wi-Fi	USB • Bluetooth Wireless Technology • Infrared • Wi-Fi • Serial
<u>PDA Special Features</u>	Vertical And Horizontal Display	Vertical And Horizontal Display • Led Notification
Security Features	Unknown	Security Password
<u>Expansion Slot</u>	SDIO Slot • Secure Digital (SD) Card Slot • MultiMediaCard (MMC) Slot	SDIO Slot • Secure Digital (SD) Card Slot • MultiMediaCard (MMC) Slot • CompactFlash (CF) Type II Slot

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 subdividing 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

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

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- SWOT Analysis

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.

Strengths	Weaknesses
Wide range of services	Lack of manufacturing facilities in low cost countries
Strong customer base	Inability of pay off debt
Wide geographic spread	Decline in revenues
Opportunities	Threats
Consumer spending trends	Intense competition
Demand for engineered plastics	Environmental regulations
Leverage technology to tap the industry trends	Pricing pressure from OEMs

SWOT Analysis: DAIKIN Industries

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