A Method to Explore Synergy between Products

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Abstract

Many companies struggle to benefit from similarities between products they sell. The challenge is to find these commonalities that can be shared between products, while the product value for different customers is not (too much) compromised. A method is provided to understand the playing field both in marketing and technology. Better understanding of the playing field facilitates choices about synergy.
# Types of synergy

<table>
<thead>
<tr>
<th>Customer objectives</th>
<th>Application</th>
<th>Functional</th>
<th>Conceptual</th>
<th>Realization</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Multiple markets</strong></td>
<td>different customers</td>
<td>different applications</td>
<td>similar products</td>
<td>shared concepts</td>
</tr>
<tr>
<td>for example electron microscope markets:</td>
<td>material sciences, life sciences, semiconductors</td>
<td>EM specialists, biologists, process quality</td>
<td>everything possible, specific handling, high throughput</td>
<td>e-beam sources, optics, vacuum, acquisition control</td>
</tr>
<tr>
<td><strong>Single market</strong></td>
<td>same customers</td>
<td>different applications &amp; stakeholders</td>
<td>different products</td>
<td>shared concepts</td>
</tr>
<tr>
<td>for example, health care, radiology market</td>
<td>radiology department</td>
<td>gastrointestinal, orthopedics, neurology</td>
<td>radiography, x-ray diagnostics, MRI, CT scanner viewing</td>
<td>patient support, patient information, image information, storage &amp; communication</td>
</tr>
</tbody>
</table>
## Approach to Platform Business Analysis

- **explore markets, customers, products and technologies**
- **share market and customer insights**
- **identify product features and technology components**
- **make maps:**
  - market segments - customer key drivers
  - customer key drivers - features
  - features - products
  - products - components
- **discuss value, synergy, and (potential) conflicts**
- **create long-term and short-term plan**
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MPBExplore

Explore Markets, Customers, Products and Technologies

market segments customers products technology

Asian country Asian city US private US social EU
African
EU

Asian country Asian city US private US social EU

Won Lan JJ express Pretoria national Johnson Columbia

P1800 P1900 P2200 P2600

basic hf feeder feeder buffer
feeder buffer

1800k/hr 2100k/hr 2100k/hr 3000k/hr

brain storm and discuss time-boxed
Study one Customer and Product

What does Customer need in Product and Why?

Customer
What
Customer objectives

Application
Product
What
Conceptual
Realization

Customer
How
Product
How

What does Customer need in Product and Why?

Key drivers
Safety
- Reduce Accident rates
- Enforce law
- Improve Emergency Response

Effective Flow
- Reduce delay due to accident
- Improve average speed
- Improve total network throughput
- Speed up target groups

Smooth Operation
- Ensure Traffic
- Ensure pr
- Ensure ey

Environment
- Reduce air

Derived application drivers
- Early hazard detection
- Warning and signalling
- Maintain safe road condition
- Classify and track dangerous goods vehicles
- Detect and warn non compliant vehicles
- Enforce speed compliance
- Enforce red light compliance
- Enforce weight compliance

Requirements
- Automatic upstream accident detection
- Weather condition dependent control
- Automatic counter flow traffic detection
- De-icing
- Traffic condition dependent speed control

Safety
Effective
Flow
Smooth
Operation
Environment
Reduce Accident rates
Enforce law
Improve Emergency Response

Key drivers
Derived application drivers
Requirements

Note: the graph is only partially elaborated for application drivers and requirements.
Work Flow Analysis for Different Customers/Applications

- **Patient:** nurse, physician, admin
- **Stakeholders:**
- **Who:**
- **Where:**
- **What:** workflow
- **How:** sketch
- **When:** time line

**Preparation Workflow:**
1. Get patient
2. Patient on table
3. Get RF coil
4. Position RF coil
5. Move patient in magnet
6. Make plan scan

**Workflow:**
- Walk from dressing room to table
- Sit on table and position patient
- Move table upwards
- Position coils and connect
- Move table and patient into magnet
- Make plan scan

**Timeline:**
- 14:15
- 14:20
Make Map of Customers and Market Segments

functionality
performance

mature

P1800
P1900
P2000
P2200
P2600

many changes and variations

niche

sales
price

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MPBAproductMarketMap
Identify Product Features and Technology Components

- **features**
  - basic
    - buffer
    - sunp.
    - hf feeder
  - hardware
    - feeder
    - hf feeder

- **services**
  - toolboxes
    - 1800k/hr
    - 2100k/hr
    - 3000k/hr

- **applications**
  - adjust
  - order
  - workflow
  - prepare
  - packing
  - process

- **drivers**
  - cooling
  - heating
  - cleaning
  - feeding

- **store**
  - conveyor
  - robot

- **climatic subsystem**
  - domain specific
  - handling subsystem
  - power

- **control subsystem**
  - generic
  - OS

- **networking**
  - file-system

- **CPU**
  - RAM
  - etc

- **handling subsystem**
  - fast imaging

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Example Criteria for Determining Value

• Value for the customer
• (dis)satisfaction level for the customer
• Selling value (How much is the customer willing to pay?)
• Level of differentiation w.r.t. the competition
• Impact on the market share
• Impact on the profit margin

Use relative scale, e.g. 1..5 1=low value, 5 -high value
Ask several knowledgeable people to score
Discussion provides insight (don't fall in spreadsheet trap)
## Determine Value of Features

<table>
<thead>
<tr>
<th>features</th>
<th>P1800</th>
<th>P1900</th>
<th>P2200</th>
</tr>
</thead>
<tbody>
<tr>
<td>satisfaction customer</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>sales price</td>
<td>5</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>market share</td>
<td>4</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>feeder</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>hf feeder</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>buffer</td>
<td>4</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>sunpower</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

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PFproductFeatureMapWithNumbers
Example Platform Scoping

- Intelligent buildings
- Motorway management
- Railway stations
- Airport terminals

**heterogeneous domains and application**

**shared core technology**

- Closed Circuit TV
- Audio broadcasting
- Access control
- Networking