TIN 80 C Lecture #7 (4/21/15)

Agenda

1) Review Market Strategy (Lecture 6)
2) Project Phase I
3) Homework 2
4) Business (competitive) Strategy
Project Phase I

Every group must meet with the instructor (Tyler) during office hours.

E2553 4:00-7:00 pm

Every group member must touch base with the instructor or TA (Sabine) either during the group meeting today (Tuesday) or during office hours.

Office Hours

Tyler: Tuesday E2553 4:00-7:00 pm
    Thursday E2595 3:00-4:00 pm

Sabina: Wednesday E2553 1:00-5:00 pm

Bring a short (1-2 paragraph) description of your contributions to Phase I.
(3) Homework 2

Problem 2: you only need to do the market analysis for the digital camera market. Competitive analyses will be discussed in class on Thursday.

Market analysis has two parts:

(Required) 1) Market Segmentation (Revenue Map)

(Extra Credit) 2) Select a segment (or multiple segments) to target and create a marketing mix (4Ps)

Use Structured Problem-Solving!

Step 1: Define the problem

Create a market segmentation for the digital camera market that shows the size ($) and the growth% of the different types of cameras (e.g. DSLRs) for each major customer segment (e.g. Professional Photographers)
Step 2: Plan the Approach

1) Understand how digital cameras work and the different types of digital cameras (howstuffworks.com)

Example:
- DSLR
- Point and Shoot
- Prosumer (mega-zoom)
- Micro 4/3 Cameras
- Cell Phone
- Action Cameras (go pros)

Results/Execute

2) Identify the different customer segments

Example:
- Professional
- Travel
- Casual/Home
- Sports
3) Internet research to find the overall market size and growth rate

Example: Consumer Electronics: $2238, 3%
Digital Cameras: ?

4) Create the Revenue Map

- Market research data (if available)
- Estimation (Lecture 6)

Step 3: Execute the Plan (Results)

![Revenue Map Diagram]
Step 4: Check work

\[ \sum (\text{segment size}) \leq \text{market size} \]

and

\[ \sum (\text{segment size} \times \text{segment growth}) \leq \text{market size} \times \text{market growth} \]

Step 5: Conclusions

About the problem (digital camera market)

About yourself (skill, lesson learned, etc.)
Problem 2: Product Design

Use Structured Problem-Solving to apply the Product Design Process (Lecture 4).

Dissect existing products (FAST) to get key sub-functions for the new product's function structure.

Example: Function Structure for Washer/Dryer (based on dissecting Whirlpool washer/dryer)

Once you have a basic/working function structure, add/modify/remove sub-functions until you have the desired product.
4) Business Strategy

The business strategy describes how the company (start-up) will compete in the target market segments (identified in the market strategy).

Process for Creating a Business Strategy / Competitive Strategy using Porter’s Five Forces:

1) Create a map of the Industry/Market landscape for the Company

   Industry: Competitors (companies), Suppliers, Substitute, New entrants
   Market: Buyers (customers) that drive the industry

   Example: Smartwatch/Fitness Tracker Industry

<table>
<thead>
<tr>
<th>Company</th>
<th>Size ($M)</th>
<th>Market Share (%)</th>
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</thead>
<tbody>
<tr>
<td>Samsung</td>
<td>200B</td>
<td>23%</td>
</tr>
<tr>
<td>Apple</td>
<td>725B</td>
<td>? (4/24/15)</td>
</tr>
<tr>
<td>Garmin</td>
<td>9B</td>
<td>7%</td>
</tr>
<tr>
<td>Pebble</td>
<td>25M</td>
<td>7%</td>
</tr>
<tr>
<td>Nike</td>
<td>85B</td>
<td>9%</td>
</tr>
<tr>
<td>Microsoft</td>
<td>350B</td>
<td>?</td>
</tr>
<tr>
<td>Fitbit</td>
<td>66 M</td>
<td>6%</td>
</tr>
</tbody>
</table>
2) Perform a Porter's Five Force analysis of the Industry/Market landscape.

**Example: Smartwatch Industry/Market (2015)**

- **F2: Threat of New Entrants / Barriers to Entry**
  - New Entrants
    - Apple
    - Microsoft
    - Swatch
  - Samsung
    - Pebble
    - Nike
    - Fitbit

- **Supplier Power**
  - Raw Metal
  - Displays
    - Samsung, LG
  - Batteries

- **Competitors Power**
  - F1: Rivalry between Competitors

- **Buyers Power**
  - Teens
    - College Students

- **F3: Substitute Products**
  - Substitute Products
    - Regular Watch;
    - Pedometer;
    - Smart phone

- **F4**
  - Supplier
    - Power

- **F5**
  - Supplier
    - Power

**Substitute Products**

- Operating Systems / Mobile Devices
  - Apple, Google, Microsoft
  - Samsung, Apple, Nvidia

- Microprocessors / Memory
  - Intel, AMD, Qualcomm
F1 (Force 1): Rivalry between Competitors

Example: Apple and Samsung Patent lawsuits

The intensity of this force is determined by:

1) Concentration: How many competitors and the size of each competitor

2) Brand Identity

F2 (Force 2): Threat of New Entrants/
Barriers to Entry

Example: Pebble, crowd-funded startup, was able to obtain a significant market share (7%) in 3 years.

The determinants of F2

1) Capital Requirement (H): Cost to enter the market (design, develop, market a product)

2) Brand Identity
F3 (Force 3): Threat of Substitute Products / Barriers to Entry

Example: Smartphones provide most (if not all) of the same functions as smartwatches.

The determinants of F3:
1) Switching Cost: How hard is it for customers to switch to the substitute product?
2) Price: Is the substitute product less expensive?
3) Functionality/Quality: Is the substitute product a better product?

F4 (Force 4): Buyer Power

Example: Every smartphone owner is a potential smartwatch customer.

The determinants of F4:
1) Buyer Concentration: # buyers / size (#) of the buyers
2) Switching Cost
FS (Force 5): Supplier Power

Example: Samsung is both a supplier and competitor in the Smartwatch market.

The determinants of the intensity of FS:
1) **Supplier Concentration**: how many suppliers for each component or product sub-system.
2) **Supplier Size ($)**
3) **Switching Cost**: how easy is it for a company to switch to a different supplier.

For each one of the five forces, we use the determinants to figure out how strong (intense) each one of the forces is (e.g., "High", "Medium", "Low").

3) Assess the overall "attractiveness" of the industry, i.e., how profitable would it be for the company (start-up) to enter the industry.
<table>
<thead>
<tr>
<th>Force</th>
<th>Intensity</th>
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</thead>
<tbody>
<tr>
<td>F1: Rivalry between Competitors</td>
<td>Low - Medium</td>
</tr>
<tr>
<td></td>
<td>Many competitors, weak brand identity, growing market</td>
</tr>
<tr>
<td>F2: Threat of New Entrants / Barriers to Entry</td>
<td>Medium - High</td>
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<tr>
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<td>Relatively low capital requirements / easy to reuse existing mobile tech, many companies entering or looking to enter the market</td>
</tr>
<tr>
<td>F3: Substitute Products / Barriers to Entry</td>
<td>Medium (Smartphones, Watches)</td>
</tr>
<tr>
<td>F4: Buyer Power</td>
<td>Medium - High</td>
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<td>Lots of options, but not very many good ones. Smartwatches work with most phones (This might change)</td>
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<tr>
<td>F5: Supplier Power</td>
<td>Medium</td>
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<td>Lots of suppliers for some components (Mobile hardware)</td>
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