Chapter 3: Opportunity Identification

Teaching materials to accompany:
Product Design and Development
Chapter 3

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Outline

- What is an Opportunity?
- Tournament Structure of Opportunity Identification
- Opportunity Identification Process
  - 1. Establish a charter
  - 2. Generate and sense many opportunities
  - 3. Screen opportunities
  - 4. Develop promising opportunities
  - 5. Select Exceptional opportunities
  - 6. Reflect on the results and the process
The FroliCat company

- Pet products company had successful introduced laser based cat toys.
- Small company, investment in developing new products can cause substantial financial risk.
- Based in Chicago, factory in China. Engage a Shanghai-based product development consulting fir, Asentio Design to lead the opportunity identification effort.
What is an Opportunity?

• In product dev. Context, opportunity is and idea for a new product.
  – Product description in embryonic form,
  – newly sensed need,
  – newly discovered technology
  – Rough match between a need and a possible solution.

• Consumer products (Unilever): new type of soap, cosmetics

• Material company (3M): new polymer
What is an Opportunity?

- Articulated with less than one page of information: sketch, narrative, title
What is an Opportunity?

- Types of Opportunities

**Horizon 1:**
improvements, new variants of existing products, cost reduction of existing product

**Horizon 2:**
horizon of new need/market or/and existing solution that we do not use

**Horizon 3:**
horizon of new need/market and new technology
What is an Opportunity?

• Frolicat case:
  Only have 1 year to lunch new product, avoiding Horizon 3.
  the team wishes built on its initial success with the Bolt cat toy,
  It sought a next-generation solution for the existing need to entertain cats
  → Horizon 2 Opportunities

EXHIBIT 3-3 Types of opportunities. Horizons 1, 2, and 3 represent increasing levels of risk, reflecting different types of uncertainty.
Opportunity Identification Process:
Generate large number of opportunities and efficiently kill those that are not worthy of further investment

Product Development Process:
Take opportunity articulated in the mission statement and do everything possible to assure it becomes the best product it can be
Raw Opportunities → Opportunity Tournament → Mission Statement → Product D. Process → Product launch

1 Opportunity Articulated as a Mission Statement for Product Development Team

3 Opportunities with Exploratory Prototypes and Sample Packaging
Effective Opportunity Tournaments

1. **Generate a large number of opportunities**
   - Produce more opportunities, lead to more exceptional opportunity

2. **Seek high quality of the opportunities generated**
   - Adopting better methods for generating opportunities and mining better sources of opportunities can increase the average quality of the opportunities under construction.

3. **Create high variance in the quality of opportunities**
   - Generating wacky ideas and wild notions increases the chance that at least one of the opportunities will be exceptionally good
Effective Opportunity Tournaments

Opportunity Creation Process

Identifying Opportunities Externally

Generating Opportunities Internally

Quality of Creation Process

Raw Opportunities

Quality Hurdle

Exceptional Opportunities
Opportunity Identification Process

- We divided the opportunity identification process into six steps as follows:
  
  **STEP 1**: Establish a charter
  **STEP 2**: Generate and sense many opportunities
  **STEP 3**: Screen opportunities
  **STEP 4**: Develop promising opportunities
  **STEP 5**: Select exceptional opportunities
  **STEP 6**: Reflect on the results and the process
Step 1: Establish a Charter

- Charter → anggaran dasar
- Innovation charter articulates goals and establishes boundary conditions for an innovation effort
- Example Frolicat:

  *Create a physical product in the cat toy category that we can launch to the market within about a year through our existing retail sales channel.*

  Boundary: emphasis on physical goods instead of software or services, a focus on the cat toy category, a preference of time investments, take advantage of the company's existing relationship with retailers

- → more focus, avoid wasting effort
Step 2: Generate and Sense Many Opportunities

<table>
<thead>
<tr>
<th>Source: Terwiesch and Ulrich survey of 524 managers in diverse service and product industries, October 2006.</th>
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<tbody>
<tr>
<td>internally generated</td>
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<tr>
<td>customer</td>
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<td>competitive product</td>
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<td>sales force</td>
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<td>other partner company</td>
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Half of innovation opportunities are generated **internally within an organization**, while the rest are recognized from customers and other external sources.
Techniques for Generating Opportunities

- For some people, creating ideas is quite difficult.
- Below is seven basic techniques for stimulating the identifications of opportunities:

1. **Follow a Personal passion**
   - List your passion, what makes you excited?
   - consider how technologies, trends, business models might influence your passion?
Techniques for Generating Opportunities

• Matt Kressy, a bicyclist creates a nutrient delivery system.

• Adjust the amount of sugar and electrolytes in hydration pack.

• Desire, passion → chance of opportunities
2. Compile Bug Lists

Innovators are often chronically dissatisfied with the world around them. List every annoyance or frustration, think/dream about its solution. Any problem is an opportunity!

3. Pull Opportunities from Capabilities

Firm's Unique resources: capabilities, core competencies and competitive advantages. A resource must be VRIN, that is:

1. Valuable: a resource that allows a firm to achieve greater performance than competitors
2. Rare: a valuable resource must be rare
3. Inimitable: a resource must not be rare
4. Nonsubstitutable: a resource providing advantage can't be easily substituted

VRIN can be used to define targets by first articulating and inventory resources and using the inventory as lens for opportunity generation.
Techniques for Generating Opportunities

- Apple's VRIN resources: excellence in industrial design, a leading brand, and a loyal customer brand
- Guide to opportunity creation from VRIN:
  - In what other products categories might apple's design excellence create advantage?
  - For which product/service categories could the apple d brand be deployed to advantage?
  - What other products of services could Apple provide to its customer base?
4. Study Customer

Opportunity can be identified by studying customers in a selected market segment.

Also called user anthropology or consumer ethnography.

Shimano case: they found that many consumers want bikes that technically simple, easy to ride and easy to get on and off.

On the other hand, Bicycle producers tent to create more advance bicycle for bicyclist
5. Consider Implication of Trends

Changes in technology, demography or social norms often create innovation opportunities.

List social, environmental technological or economic trends and then imagine innovation opportunities

example:

-power bank and the trending of smartphone, apps also.
-Growing environmental awareness: market for green products and services
6. *Imitate but Better approach*

- Scan and monitor the activities of other firms by attending trade shows and following patent filings.
  
  **Generate alternative approaches to meeting the need.**

- De-commoditize a commodity

  example:

  coffee before starbucks, breath mints before altoids, tea before the botol?

  **List all of the inexpensive, undifferentiated products or services in a category and then consider the possibility of deluxe versions.**

- Drive an innovation “down market”

  **Premium products or services → cheaper versions of the products!**

- Import geographically isolated innovations

  **Translating an innovation from one geographic region to another can be source of innovation.**

  Starbucks founder Howard Schultz created the chain after visiting Milan and like to the cafe culture and expresso-based drinks.
7. Mine Your Sources

Half of product opportunities arise from outside sources:

- **Lead users**: example: Many devices and procedures in health care were invented by clinicians.

- **Social media, blogs, forums** as resource for new idea.

- **Universities and government lab**: solutions identified in universities and government lab can be commercialized by third parties (companies and start up)

- **Online idea submission**: brainstorming through web sites. Let customers give suggestions through questionnaire in websites.
Step 3: Screen Opportunities

• The goal of screening is simply to eliminate opportunities that are highly unlikely to result in the creation of valued and to focus attention on the opportunities worthy of further investigation.

• Two methods:
  Web-based surveys (usually more than 50 opportunities)
  Workshops surveys with multi-voting

• Advancing not only the ideas receiving most votes, but also those with only a few very enthusiastic supporters
Step 4: Develop Promising Opportunities

- Developing promising opportunities:
  - Internet search for existing solutions
  - Informal discussion with a few potential customer
  - Customer interview
  - Testing of existing products
  - Concept generation
  - Quick prototypes
  - Estimate market sizes and growth rates

- The goal is to resolve the greatest uncertainty surrounding each one at the lowest cost in time and money
Step 5: Select Exceptional Opportunities

- **Real-Win-Worth it (RWW) method.**
  - **Is the opportunity real?**
    Is there a real market? Market size, potential pricing, availability of technology,
  - **Can you win with this opportunity?**
    Can you establish a sustainable competitive advantage? Can you patent or brand the idea? Are you more capable of executing it than others?
  - **Is the opportunity worth it financially?**
    Do you have the resources needed (financial and developmental). Are you confident that the investment will be rewarded with appropriate returns?
Real-Win-Worth-it (RWW) Framework—“Swing Ball Cat Toy” Example

1. Is there a real market and a real product?
   Is there a need? (What is the need? How is the need presently satisfied?) Yes
   Can the customer buy? (size of the market, customer decision-making process) Yes
   Will the customer buy? (perceived risks and benefits, expectations on price and availability) Yes
   Is there a viable concept for a product already? How likely are we to be able to develop a viable concept? Yes
   Is the product acceptable within the social, legal, and environmental norms? Yes
   Is the product feasible? Can it be made? Is the technology available? Does it satisfy the needs? Yes
   Will our product satisfy the market? Is there a relative advantage to other products? Yes
   Can it be produced at low cost? Yes
   Are the risks perceived by the customer acceptable? What are the barriers to adoption? Yes

Answer YES

2. Can we win? Can our product or service be competitive? Can we succeed as a company?
   Do we have a competitive advantage? Is it sustainable? (performance, patents, barriers to entry, substitution, price) Yes
   Is the timing right? Yes
   Does it fit our brand? Yes
   Will we beat our competition? (How much will they improve? price trajectories, entrants) Yes
   Do we have superior resources? (engineering, finance, marketing, production; fit with core competencies) No
   Do we have the management that can win? (experience? fit with culture? commitment to this opportunity?) Yes
   Do we know the market as well as or better than our competitors? (customer behavior? channels?) Yes

Answer YES

3. Is it worth doing? Is the return adequate and the risk acceptable?
   Will it make money? Yes
   Do we have the resources and the cash to do this? Yes
   Are the risks acceptable to us? (What could go wrong? technical risk vs. market risk) Yes
   Does it fit our strategy? (fit with our growth expectation, impact on brand, embedded options) Yes

Answer YES
Step 6: Reflect on the Results and the Process

- How many of the opportunities identified came from internal sources versus external sources?
- Did we consider dozens or hundreds of opportunities?
- Was the innovation charter too narrowly focused?
- Were our filtering criteria biased, or largely based on the best possible estimates of eventual product success?
- Are the resulting opportunities exciting to the team?

The Sway cat-toy product that resulted from the swinging-ball opportunity.
CREATIVE PROJECT

- Opportunity tournament of "Panggangan Sate"
- Group of 5 people (6 groups)
- Create at least 1 new ideas for each group
- Round 1: Presentation & voting for best three ideas!

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<tr>
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- Round 2:
• Round 2:
  - Presentation & Selecting Exceptional idea

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<td>Product feasibility (it can be made)</td>
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<td>Appearance design</td>
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<td>Will the customer buy?</td>
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<td>Product cost (can it be produce at low cost?)</td>
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<td>8</td>
<td>Competitiveness (will it beat the competitor's product?)</td>
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<td>9</td>
<td>Is it worth doing?</td>
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<td>Team work and presentation</td>
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TOTAL SCORE
The story...

Located at cikarang baru/ Kasuari

One of Indonesia's best traditional food
The process...

Prepare the charcoal

Burn the charcoal, How to start up the fire?

Kipas- kipas, fasten the charcoal burning

- About 5 minutes to get the satay well cooked
- 15kg/10days of charcoal Rp. 105000/15kg charcoal

Grilling the satay

Turning the satay
Some Difficulties

- Smoke
- Dirty
- Hot, sweating
- Might be dangerous
- Its repeating, all manual process
Charter

- “Traditional food with non-traditional concept of cooking” the tools are aimed to replace the old tools used by satay restaurants/ sellers”

- More ideas, more chances to meet exceptional opportunities

- Creative, consider all things, some points are:
  - Easiness of operation, speed, ergonomic
  - Smoke and dirty problem,
  - Safety
  - Mobile/ immobile version?
  - Some automation?
  - thermal/fluid consideration,
  - Other fuels?
  - Other material?
  - Material cost