It’s time!

Lecture 7
Chapter 8: Product Innovation & Development Strategies
Chapter at a Glance

• WHAT IS INNOVATION?
• DISRUPTIVE BUSINESS MODELS
• DISRUPTIVE PRODUCTS
• NPD
• DISRUPTIVE TECHNOLOGIES
• HORIZONS OF GROWTH
• INNOVATION ‘MODES’
• CHASM
Scope of Disruption

Technology

Products

Business Models

(Markides, 2006)
A disruptive innovation is an innovation that creates a **new market** and **value network** and eventually disrupts an **existing market** and **value network**, displacing established **market leaders and alliances**.

<table>
<thead>
<tr>
<th>Disruptee</th>
<th>Disruptor</th>
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<tbody>
<tr>
<td>Mainframe and mini computers</td>
<td>Personal computers</td>
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<tr>
<td>Fixed line telephony</td>
<td>Cellular phones</td>
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<tr>
<td>Full-service department stores</td>
<td>Discount retailers</td>
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Disruptive Products:

Launching disruptive goods and services is a risky business especially if the technology is discontinuous.

Example: DVD recorders cannot play VHS but BluRay players can read DVDs
Different Kinds of Innovation

- Additions to existing lines: 26%
- Improvements/revisions: 26%
- New product lines: 20%
- Cost reductions: 11%
- New-to-the-world: 10%
- Repositions: 7%

(Booz, Allen & Hamilton, 1982)
• Addition to existing line:
  • MC 10:35 (Fusion of egg McMuffin & Hamburger)
  • Livewire by Harley for young generation

• Cost reduction
  • Easy Jet
  • Ryan Air
  • Megabus
  • WalMart

• Improvement & revision
  • Kellogs introduced foil wrap which distancing it from me too products and store brands
• New Product Lines
  • Coke popcorn
  • Google Nexus 7 by Asus
  • Tesco Bank

• New to the world
  • Motorolla’s first mobile phone in 1973
  • First digital watch by Hamilton Watch company in 1972

• Reposition
  • Lucozade: previously positioned for sick ppl later for sports ppl
Traditional NPD Process

• **New Product development strategies**
  • Tool Kit Strategy
  • Systematic Inventive Thinking
  • Product Rollover
New Product development strategies

1. Toolkit Strategy: “Need information” side of the equation resides with the customer while the “solution information” resides with the manufacturer.

The toolkit strategy enables customers of NPD companies to undertake their own innovation.

- Makes sense when you are faced with shrinking markets.
- Customers seeking customised products.
New Product development strategies
2. Systematic Inventive Thinking

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<td><strong>Multiplication</strong> involves adding elements like developing a double waste bin unit that can be used for rubbish</td>
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<td><strong>Division</strong> is the breaking-down of an existing product or service into its component parts such as the replacement of the integrated hi-fi into modular systems involving speakers, amplifier, tuner, tape &amp; CD</td>
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<td><strong>Task Unification</strong> concerns assigning a new task to the product or service such as when Rubbermaid placed assembly instructions for storage cabinets on the packaging rather than on a separate enclosed sheet</td>
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*(Goldenberg, Horowitz, Levav & Mazursky, HBR, 2003)*
**Subtraction** *Remove* an essential component from a product and find uses for the newly envisioned arrangement of the existing components.

**Phillips Consumer Electronics:**
- Remove local display & all the control buttons DVD player.
- Use one button to control the most common functions.

**Multiplication** involves *adding* elements

Example:
- developing a double waste bin unit that can be used for rubbish
- a double flash when snapping a photo reduces the likelihood of “red-eye.”
• **Division** *Divide* the product and/or its components and rearrange them to form a new product.
  
  • Example: adding lawn mower blades in a cycle

**Task Unification:** *Assign a new and additional task* to an existing resource

Defrosting filament in a car windscreen.

• Assigned extra task of enhancing radio reception.

• Car manufacturers able to get rid of the separate radio antenna, long an ugly appendage on the car's body.
3. Product Rollover

- Should the old product be sold out before introducing the new or should they be sold simultaneously?
  - If so, should they be sold at different prices, in different geographic regions or different channels?

(S billington, Lee and Tang, 1998)
3. Product Rollover

- Solo product roll
  - This aims to have the entire range of old product sold out.
  - High risk high return strategy
  - Can be expensive if the old product is sold out too early or has too much of an inventory
3. Product Rollover

• **Dual product roll**
  - Both old and new products sell simultaneously for a period
  - It is less risky than solo option but requires the marketing of both old and new product

• Strategies to differentiate the new and old product:
  - **Geographic rolls:** *Daimler Benz* first introduced its smart car in Europe then in USA
  - **Channel rolls:** *Nike* introduced new models to own stores and old one to discount retailers
  - **Dual pricing:** *Samsung* mobile reduces the price of a model immediately after a new model is introduced.
  - **Silent roll:** *Sony TV*
  - **Lean launch:** Just in time launch (unlikely strategy)
• A **disruptive technology** is one that displaces an established technology and shakes up the industry or a groundbreaking product that creates a completely new industry. Here are a few **examples** of disruptive technologies:
  - The **personal computer (PC)** displaced the typewriter and forever changed the way we work and communicate.
  - **Cell phones** made it possible for people to call us anywhere and disrupted the telecom industry.
Here are a few examples of disruptive technologies:

- The **Windows operating system's** combination of affordability and a user-friendly interface was instrumental in the rapid development of the personal computing industry in the 1990s.
- **Personal computing** disrupted the television industry, as well as a great number of other activities.
- **Email** transformed the way we communicating, largely displacing letter-writing and disrupting the postal and greeting card industries.
Roger’s Perspective: innovation adoption model

Adopter Categorization on the Basis of Relative Time of Adoption of Innovations

Roger’s Perspective:

- **Innovators**
  - Risk Takers
  - Willing to try new ideas
- **Early Adopters**
  - Opinion leaders
  - Cautious consumers
- **Early majority**
  - Do not seek leadership
  - Average buyers
- **Late majority**
  - Risk averse
  - Adopts innovation after majority consumers
- **Laggards**
  - Highly risk averse
  - Traditional mentality
  - Adopts innovation when it becomes traditional
Chasm Behaviour

Technology Adoption Life Cycle

Groups are distinguished from each other based on their characteristic response to discontinuous innovations created by new technology.

- Visionaries: Get ahead!
- Pragmatists: Stick with the herd!
- Conservatives: Hold on!
- Skeptics: No way!

The Chasm

- Innovators
- Early Adopters
- Early Majority
- Late Majority
- Laggards
• **Reason of chasm creation**

  • *Reluctant Mass Customers:* The chasm exists because after a certain point of selling your product to early adopters you reach a sales plateau where your next stage of growth is to take the product to the masses. But, while early adopters are okay with incomplete features and early stage technologies in general, the early majority is pragmatic and will only accept the product once it solves a current problem they face.
Chasm or Saddle

• **Saddle:** Sudden sustained deep drop in sales of a new product after a period of rapid growth. Followed by a gradual recovery to the former pick

• Average saddle occurs 9 years after take off

• Normally lasts for 8 years depending on the combined effects of both business and technology cycles
• The challenge for a high tech industry is to cross the chasm

• **Reasons companies can’t cross the chasm:**
  • Company does not have recourses to support fast growth
  • The product is not that different in reality
  • Not enough invested in educating consumers
  • There is simply no market for innovation
• **How to Cross the Chasm**

• In his first book, Moore argues that in order to successfully cross the chasm you must do the following:

  1. Create the “*whole product*” – don’t try to cross the chasm without a complete feature set and all major bugs eliminated

  2 *Correct Positioning* - Position the product appropriately for skeptical pragmatists/early majority who make up the early majority

  3. *Avoid value based pricing* - Price the product relative to competitive comparisons rather than using value-based pricing

  4. *Correct Channel* - Distribute the product through the right channels
How to Cross the Chasm

1. The Whole Product

- One of the major challenges startups face is the need to round out their product feature set and ship a “whole product.” The lean startup methodology encourages the creation of a “minimum viable product” which is analogous to the core product in Moore’s framework. As you get more feedback from customers it becomes
The whole product

Complementary Services

Consulting

Equipment

Post-sales service & support

Software

Pre-sales services

People

Process

Connectivity

Complementary Goods
How to Cross the Chasm

2. Positioning the Product

• To position the product successfully to pragmatists/early majority, Moore argues it’s important to focus on the economic buyer and emphasize ROI as the compelling reason to buy.

3. Avoid value based pricing - Price the product relative to competitive comparisons rather than using value-based pricing
How to Cross the Chasm

4. Distribute the Product Through The Right Channels

• One of the biggest insights from Moore’s framework is the critical role of various distribution channels. In his book he argues that most distribution channels can fall into two general categories: demand creators and demand fulfillers.

  • For example, the direct sales channel is a channel that is **optimized for demand creation**. This is usually the most effective channel for new technologies because unless the product category is well defined and well established in the market, you will need to have a direct sales force out in the market to explain the benefits of the product.

  • Conversely, **retail sales channels are optimized for demand fulfillment**. Once a product category is well understood in a market and there is existing demand for the product, retail can be the most effective means to fulfilling that existing demand.
• The Bowling Alley, Tornado and Main Street
  • Following the publication of his first book, Moore recognized ways his model could be improved and decided to write a follow-up book titled “Inside the Tornado: Strategies for Developing, Leveraging, and Surviving Hypergrowth Markets.”
  • The first addition to his model was a more specific strategy for crossing the chasm that he illustrated using the analogy of a bowling alley.
competitive advantage
fix a broken business process
develop channel/operations infrastructure
get better value
• The Bowling Alley
  • The main idea of the bowling alley is that when you go to cross the chasm and start to plan out how you will build the whole product, it helps to identify specific market segments in the early majority that you want to target and who will help you specify and create the whole product.
  • For example, suppose you built your core product as a specific solution to a particular customer segment’s problem. You had them in mind when you formed the initial idea and you’ve been engaged with them from the very beginning. But after launching your first version of product you realize that with a few added features or slight modifications your product could be used by an entirely new segment of customers with different but similar needs.
  • The idea of the bowling alley is to line up all those segment opportunities and create a plan to add features (whole product) and make customizations (customer preferences) that will over time address all those particular market segment opportunities.
  • Moore suggests that if you execute on the bowling alley strategy well enough, your product and your business will enter what he calls “The Tornado.”
Migrate into new applications, new segments

Bowling Alley Strategy
• **Inside the Tornado**
  Getting sucked up into the tornado is actually a good thing for most businesses because it **represents a time of hyper-growth**. However, the downside to the tornado is it can tear your business apart at the seams if you’re not operationally prepared for it.

So what is the tornado?

In summary, **the tornado is a time when you’ve finished building the whole product and now everybody wants it and they want it now.** It’s a time when your business needs to scale exponentially in order to keep up with potentially crushing demand. During this period every effort within the organization should be devoted to shipping the product as efficiently as possible. As long as you can ship, you’ll stand a fighting chance of surviving the tornado.
• **Main Street**
- Coming out of the tornado is a *period of relative calm* for your business.
- The whole *product has been built and proven in the market* and your ability to ship has also withstood a crucial test. ---
- Now the *opportunities for growth are limited* in scale but *high in margin*.
- This is when building an *aftermarket program* becomes the next big opportunity in the life cycle.
- Now that your product has been widely adopted and you have set many standards in the industry, your **biggest opportunity is to leverage your market position by providing what Moore calls +1 aftermarket add-ons** that improve the functionality of your whole product and prevent customers from having a reason to switch to a competitor.
• Conclusion
  • Moore’s model is perfect for those products that are so new and different that they require the organization to create a market out of practically nothing.
  • This is opposite to the “better mousetrap” type of product where there is an established and proven market and the only thing you did was create a better product than is currently available.
Horizons of Growth

• A crucial factor to consider in order to manage innovation properly is to understand the horizon of growth the business is within
  • Horizon 1:
    • Mature and established business
    • Need traditional management strategies
    • Growth measured by productivity and efficiency
  • Horizon 2
    • Rising businesses which are experiencing rapid growth
    • Require discipline risk taking management
    • Growth just by revenue and market share
  • Horizon 3
    • Emerging businesses
    • Need champions and inspiring leaders who can create new strategies
    • Growth measured by how businesses are converting new ideas in workable business
If you aren’t the market leader

H2: Judo strategy

• **Movement**
  • One of the key tactics in movement is the ‘puppy dog play.’
  • Keep a low profile until you are strong enough to fight
  • Example: Development of mobile app didn’t catch the attention of Microsoft

• **Define the Competitive Space**
  • Establish the positioning of the product & keep it simple
  • Example: First apps in the android market in 2008 were simple and straightforward

• **Follow Through Fast**
  • Maintain innovation with a focus on design, functionality & low prices
  • Example: When Microsoft began to enter the mobile market place with apps for its windows mobile

(Yoffee & Kwak, 2002)
Options for Innovation

- **Follow Mode**
  - Ex: Japan’s Shiseido Company’s white lucent

- **Isolate Mode**
  - Ex: British bike industry in 1960

- **Interaction Mode: for one to one marketing**
  - Ex: Dell.com

- **Shape Mode**
  - Ex: Apple Macintosh

(Berthon, Hulbert & Pitt, 1999)
Conclusion

• There are a variety of tools for NPD.
• The chasm provides a new twist to product innovation and development. Its main value is in filtering marketing strategy through the Chasm framework.
• It helps identify which customers or markets are on the different parts of the curve and how to market to them?
• It might change some of the mix strategies like pricing, communications or services offered.