

FUNDAMENTAL OF TECHNOPRENEURSHIP (UCSD2762)

Chapter 3 Idea Generation & Opportunity Recognition

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"Sometimes you get a brainstorm, sometimes you only get the clouds."



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	iPhone 4	iPhone 4S
Dimensions	4.5 inches tall by 2.3 inches wide by 0.37 inch thick; 4.8 ounces	4.5 inches tall by 2.3 inches wide by 0.37 inch thick; 4.9 ounces
Display	3.5-inch, 960x640-pixel Retina display	3.5-inch, 960x640-pixel Retina display
Camera	5-megapixel camera with LED flash, 720p HD video recording at 30fps; front-facing VGA camera	8-megapixel camera with LED flash, 1080p HD video recording at 30fps, auto focus, face detection; front-facing VGA camera
Connectivity	Bluetooth 2.1; Wi-Fi (802.11b/g/n); GSM/UMTS /HSDPA/HSUPA; CDMA/EV-DO Rev. A	Bluetooth 4.0; Wi-Fi (802.11b/g/n); dual-mode world phone; GSM/UMTS/HSDPA/HSUPA; HSPA+; CDMA/EV-DO Rev. A
Processor	1GHz ARM Cortex-A8	Dual-core 1GHz A5 processor with dual-core graphics
Capacity	8GB, 16GB, 32GB	16GB, 32GB, 64GB
Location	Assisted GPS, digital compass, Wi-Fi, cellular	Assisted GPS, digital compass, Wi-Fi, cellular
Sensors	Three-axis gyro, accelerometer, proximity sensor, ambient light sensor	Three-axis gyro, accelerometer, proximity sensor, ambient light sensor
Battery life	7 hours of talk time on 3G, 12.5 days of standby time; 40 hours audio playback; 10 hours video playback; 6 hours (3G)/10 hours (Wi-Fi) Internet use	8 hours of talk time over 3G, 14 hours over 2G, 40 hours audio playback, 10 hours video playback, 6 hours (3G)/9 hours (Wi-Fi)
Carrier	AT&T, Verizon	AT&T, Verizon, Sprint
Pricing	\$99 for 8GB, \$199.99 for 16GB, \$299.99 for 32GB	\$199 for 16GB, \$299 for 32GB, \$399 for 32GB
Colors	Black, white	Black, white



- 1. Explain the difference between an opportunity and an idea.
- 2. Describe approaches entrepreneurs use to identify opportunities.
- 3. Identify different source of entrepreneurial ideas
- 4. Differentiate between problems and opportunities
- 5. Explore different techniques to generate and organize ideas
- 6. Identify the environmental trends that are most instrumental in creating business opportunities.



- 7. Identify the steps in the creative process.
- 8. Describe the purpose of brainstorming and its use as an idea generator.
- 9. Learn to use fishbone diagram to formulate and analyze problems.



Kaythryn Kerrigan





- Many firms fail, not because the entrepreneurs involved didn't work hard, but because there was no real opportunity to begin with.
- Identifying a product, service, or business opportunities that isn't merely a different version of something already available is difficult.
- A common in opportunity recognition process is picking a currently available product/ service that they like or are passionate about and then trying to build a business around a slightly better version of it.



What is An Opportunity?

An opportunity is a favorable set of circumstances that creates a need for a new product, service or business.







COURTESY: AMAZON.COM

- Quit as Senior Vice President of DE Shaw (Wall Street Fund) in 1994 (Insane!!!)
- Drew up a list of 20 products that could be sold online – settled on books. Why???
- Books (1.3m) CD (300k); No Gorilla(s)
- Relocate to Seattle proximity both to high-tech talent and a major book distributor
- Pure virtual company no inventory, only hundreds of staff even for a multimillion company

Essential Qualities of an Opportunity



RESEARCH UNIVERSIT



Windows of Opportunity

- The time period in which a firm can realistically enter a new market.
- Once the market for a new product is established, its window of opportunity opens.



"Despite the air-travel downturn following the 11 September 2001 terrorist attacks, Fernandes believed that the timing for entering the airline market was just right, as aircraft leasing costs had dropped sharply and experienced staff were readily available due to airline layoffs. Moreover, the acquisition was welcomed by the Malaysian government, which hoped to boost the under-used KLIA. Fernandes restructured AirAsia into the first no-frills, low-cost carrier ("LCC") in Asia, and the new business model was a huge success."



Ways to Identify an Opportunity





Approach 1: Observing Trends

- Trends create opportunities for entrepreneurs to pursue.
- The most important trends are:
 - Economic forces.
 - Social forces.
 - Technological advances.
 - Political action and regulatory change.
- It's important to be aware of changes in these areas.



Observing Trends





Trend 1: Economic Forces

Economic trends help determine areas that are ripe for new startups and areas that startups should avoid.

Example of Economic Trend Creating a Favorable Opportunity

- A weak economy favors startups that help consumers save money.
- An example is GasBuddy.com, a company started to help consumers save money on gas.



Trend 2: Social Forces

Social trends alter how people and businesses behave and set their priorities. These trends provide opportunities for new businesses to accommodate the changes.

Examples of Social Trends

- The increasing diversity of the workplace.
- Increasing interest in health, fitness, and wellness.
- Emphasis on alternative forms of energy.
- New forms of music and other types of entertainment.



Trend 3: Technological Advances

Advances in technology frequently create business opportunities.

Examples of Entire Industries that Have Been Created as the Results of Technological Advances

- Computer industry
- Internet
- Biotechnology
- Digital photography



Trend 4: Political Action and Regulatory Changes

Political action and regulatory changes also provide the basis for opportunities.

General Example

Laws to protect the environment have created opportunities for entrepreneurs to start firms that help other firms comply with environmental laws and regulations.



- Sometimes identifying opportunities simply involves noticing a problem and finding a way to solve it.
- These problems can be pinpointed through observing trends and through more simple means, such as intuition, serendipity, or change.
- Symptoms:
 - Too many errors, too slow, incorrect, incomplete
 - Lots of complaints, loss of sales, no sale







Problems and Solutions



"My team has created a very innovative solution, but we're still looking for a problem to go with it."



Problem Solving Approach

- Identify symptoms
- Understand & analyze
- Opportunities how others do? Can you do it better? Cheaper? Faster?

Problems

Solutions

- Identify
- Propose alternative
- Evaluate/ compare
- Design
- Implement

- Problem solves!
- Go back to problems
- Try other solutions

Result













"It will never catch on. You can't train a puppy on an electronic newspaper!"



- A gap in the marketplace is often created when a product or service is needed by a specific group of people but doesn' t represent a large enough market to be of interest to mainstream retailers or manufacturers.
- Eg. In 2000 Tish Cirovolv realized there were no guitars on the market made specifically for women. To fill this gap, she started Daisy Rock Guitars, a company that makes guitars just for women.



Daisy Rock Guitars





Forcing New Connections



- Created by Akihiro Yokoi in 1996
- As 2010, 76m sold



Forcing New Connections









Model of Opportunity Recognition Process

Depicts the connection between an awareness of emerging trends and the personal characteristics of the entrepreneur





Idea Generation Techniques



- Mind Mapping
- Brainstorming
- Fishbone Diagram
- Focus Group
- Library & Internet Research



- ... is a <u>diagram</u> used to represent <u>words</u>, <u>ideas</u>, tasks, or other items linked to and arranged around a central key word or idea.
- Mind maps are used to <u>generate</u>, <u>visualize</u>, <u>structure</u>, and <u>classify</u> ideas, and as an aid to <u>studying</u> and <u>organizing</u> information, <u>solving</u> <u>problems</u>, <u>making decisions</u>, and writing.



Mind Mapping



© Paul Foreman http://www.mindmapinspiration.com



- Is a technique used to generate a large number of ideas and solutions to problems quickly.
- A brainstorming "session" typically involves a group of people, and should be targeted to a specific topic.



Brainstorming



No criticism! **No evaluation!** More Ideas More crossfertilize

The crazier, the better!



Brainstorming



"Sometimes you get a brainstorm, sometimes you only get the clouds."



Fishbone/ Ishikawa Diagram

- ... are <u>diagrams</u> that show the <u>causes</u> of a certain <u>event</u>.
- Common uses of the Ishikawa diagram are product design and quality defect prevention, to identify potential factors causing an overall effect.
- Each cause or reason for imperfection is a source of variation.
- Causes are usually grouped into major categories to identify these sources of variation.



Cause and Effect/ Fishbone





- People: Anyone involved with the process
- **Process**: How the process is performed and the specific requirements for doing it, such as policies, procedures, rules, regulations and laws
- Equipment: Any equipment, computers, tools etc. required to accomplish the job
- **Materials**: Raw materials, parts, pens, paper, etc. used to produce the final product
- **Measurements**: Data generated from the process that are used to evaluate its quality
- **Environment**: The conditions, such as location, time, temperature, and culture in which the process operates



Cause and Effect/ Fishbone

