

Principles of Innovation and Entrepreneurship -ENTR 3000

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Review summary sheet for Exam 1 and 2 – This covers the entire class; & online material at: <http://www.jackmwilson.net/Entrepreneurship/Principles/index.html>

For cases and materials listed below be sure you know the definitions and the key examples.

Cases: ILINC LearnLinc, Segway, Privo, FTX-Crypto, Google, DailyWorth, Uber, Tesla. MGHPCC, Harish Hande-SELCO, Stacy's Pita Chips, Kickstarter, Snapchat

Topic Ch. 1-Who Are They

Meet some entrepreneurs and learn what motivates them

It is a very diverse group. Some motivated by profit and others motivated by social issues.

Creative Destruction- Schumpeter

All seem to want to change the world in some way.

Topic Ch 2 -Why the World Cares

Steve Blank: A startup is

- a **temporary organization**
- created to **search**, explore validate, an unmet need
- **for a repeatable and scalable business model**

Why is it important? 1. Address problems and create economic and social opportunity. 2. Avoid failure 3. Succeed greatly 4. Regional economic development. 5. Jobs, cures, community interactions.

Examples of Corporations that failed due to failure to innovate and those that succeeded due to innovation.

Schumpeter- Creative Destruction

Clayton Christenson: Disruptive Innovation, Disruptive Technology, Creative disruption
Digital, Wang, Data General, etc.

Define Entrepreneurship (Schumpeter, Drucker, Timmons)

Types of Innovation: Product, Process, Position, Business Model Innovation (Paradigm)

Disintermediation and Mass Customization as Innovation.

Radical versus Incremental and examples of each

Invention is not (necessarily) Innovation

Ken Olsen, Digital, felt that home computers would never happen.

Entrepreneurial Firms, Lifestyle Firms, Salary Substitute Firms

Corporate Entrepreneurship, Social Entrepreneurship

Social Entrepreneurs: mission driven but can be either non-profit or for-profit. Give examples. No margin -no mission. Triple Bottom Line: 1. Social, 2. Environmental, 3. Financial

Types of Exit Strategies

Gazelles, Unicorns, and UnicornpSES

Models of Innovation & Entrepreneurship: Causal, Effectual, LeanLaunchpad, Steve Blank

–know a bit about each.

Characteristics of the Entrepreneur, Myths of Entrepreneurship

Passion, Product focus, Tenacity despite failure, Execution Intelligence

Democratization: In many cases the cost to launch is small due to all the service now available.

The World is Flat: the ten flatteners.

Topics: Ch 3 ILinc

ILinc as a typical example that illustrates various points to be made in this course including: opportunity recognition, financing, team building, exit strategies, and so on. University research spins off into a new venture led by a professor and former students. They bootstrap the company and then go through three rounds of venture capital followed by choosing to be acquired as an exit strategy. They protect their intellectual property as a trade secret rather than trying to patent it.

Topics: Ch. 4-Recognizing Opportunities & Case: ILinc

Opportunity, opportunity gap, window of opportunity, entrepreneurial awareness/alertness

Durable has staying power, **Timely**: not too early nor too late. **Attractive**: rewards exceed the cost, **and Adds Value**

Example: UMass Rabies Monoclonal antibody

Forces: Economic, Social, Technological, and Political/Regulatory

Moore's Law, Gilder's Law, Metcalf's Law

"Ideas are a dime a dozen. People who implement them are priceless." – Mary Kay Ash of Mary Kay Cosmetics

Here are a few of the sources of irrational decision making: Confirmation bias, Overconfidence, Availability bias -black swans Prospect theory: Priming and the Anchor point;

Details of the ILinc case illustrate points made in course.

Topics-Ch 5. Social Entrepreneurship

Social Entrepreneurs: mission driven but can be either non-profit or for-profit. Give examples. No margin -no mission. Triple Bottom Line: 1. Social, 2. Environmental, 3. Financial

Topics Ch. 6 Business Models –Approaches to Opportunity Evaluation &Case: Segway

Business Models

How a company uses its resources, structures its relationships, interfaces with customers, creates value, and returns revenues and profits. Looking at the business model tells you how a company can become self-sustaining

Uber as an example. Compare Uber to Taxis in regard to Business Model.

Dell as an example: compare Dell to previous computer manufacturers.

Core Logic –articulates the mission and business model

1. Value proposition, 2. Target Market; 3. Suppliers, 4. Activities, 5. Kind and how much value created.

Fatal Flaws 1. Misread of customer 2. Window of Opportunity –timing 3. Utterly unsound economics

Disruptive Innovation: Examples

Business concept blind spot. Examples Digital, Wang; Kodak, Polaroid,

Product/market Scope; Partnerships; Customer Interface

The Business Model Canvas

Segway Case and how to fail at customer discovery.

Topic: Ch7 Lean Launchpad & Business Model Canvas

Effectual Entrepreneurship:

- Bird in Hand –what and who do you know and what do you have?
- Affordable Loss –.minimize risk
- Lemonade – learn from mistakes.
- Patchwork Quilt – Form partnerships.
- Pilot in the Plane –Control rather than predict. Future is created -not predicted.

Lean Launchpad -- Steve Blank: A startup is

- a **temporary organization**
- created to **search**, explore validate, an unmet need
- **for a repeatable and scalable business model**

Steve Blank: • Get out of the building (physically or virtually) – Talk to customers, ask them questions, and listen. • Sales calls aren't your IQ test or PhD defense • Stop talking and listen to the customers problem • Hire a sales team at the Customer Validation step • Match the sales team to market type

Minimum viable product (MVP), customer development process, get out of the office, agile, iterate, lean, The Pivot

Examples of business model canvas. Privo as a great example of a Business model Canvas and a Pivot.

Topics Ch. 8 Business Plan &Case: Privo

The Hybrid Business Plan:

1. Cover Page: company name, address, phone number, date, contact person, web site, Facebook, Twitter, etc. Confidentiality statement
2. Table of Contents
3. Executive Summary of 1 page (critically important)
4. Business Model Canvas. (1 page) then the following pages add details to some of these.
5. Value proposition: What problem(s) are we solving for our customers? What customer needs are we satisfying? What value do we deliver to the customer? What bundles of products and services are we offering to each customer segment?
6. Key activities of the venture:
7. The team: This is not an explicit part of the business model canvas, but it is one of the most important items to investors as we will see in the next chapter.
8. Form of the Business
9. Financing Plan for the Business
10. Customer segments:
11. Customer Relationships:
12. Channels to reach the customer:
13. Revenue streams: What value are our customers ready to pay for? For what do they currently pay? How are they currently paying? How would they prefer to pay? How much does each revenue stream contribute to the overall revenue?
14. Key Partners:

15. Cost Structure:

16. Key Resources: What key resources do we need for: our value propositions, our distribution channels, our customer relationships, our revenue streams?

17. **The Ask.** What do you need from the reader?

Business plan rejection –Steve Blank

Red flags: No skin in the game; poorly documented plan; broadly defined markets; wild financials, sloppy.

The Elevator pitch or Rocket pitch

Case: Privo Technologies

Topic: Ch. 9 Financing - Finding the Financing & Case: Kickstarter

Available funding has grown relentlessly for the last 15 years.

How much money do you need? – Capital requirements –Do you need funding for capital items, facilities, or equipment? – Operating requirements –How much will you need to have to cover operations until sufficient cash flow begins? – Break Even Analysis -At what point, in both time and money, will you begin to break even? – Overall attractiveness of the investment -Does the investment look like it will return enough profit to make the risk worthwhile?

Where to find it. • Personal Savings • Friends and family •Crowdfunding • Bootstrapping • Business angels • Venture capitalists • Corporations • Banks • The SBA Guaranteed Loan Program • Leasing • Government grants (SBIR-Small Business Innovation research)

Investors desire: Great team, An excellent business opportunity with Large and desirable market, Appropriate growth strategy, Compelling product description, Solving a business or social problem (or both!), Competitive advantage.

Bain Capital example

Funding the non-profit corporation. No margin no mission.

FTX-Crypto Case Collapse of FTX.

Bankman-Fried and other leaders charged with wire fraud, securities fraud, money laundering, and illegal campaign violations.

Topic: -Ch. 10 Building your Team & Case: Google

Bet on the jockey and not the horse. An A team with a B idea beats a B team with an A idea. People is to opportunity as location is to real estate

Things to think about in building a team: Bring in co-founders who have the technical expertise, sales background, or social connections that you lack. Creating a more diverse team give you access to a wider, more diverse network. i.e. similar people tend to have similar networks. Avoiding co-founding with friends and family. The eventual conflict far outweighs the value. Creating a clear division of labor helps accountability and creativity to flourish. Having a plan to address problems. Don't avoid conflict; plan for it.

Size, diversity, clarity, passion, coachability, -caution with family and friends.

Authors like teams of 2 to 4.

Talent triangle: domain knowledge, business acumen, operational experience

Mentors, board of advisors, board of directors, customers, social capital –Metcalf’s law.

Entrepreneurial awareness –prior experience, cognitive factors, social networks, creativity

Adaptors versus innovators

Culture and climate

Co-creation and examples (like Jobs and Wozniak, Page and Brin, Gates and Allen, and many others.)

The role of the team at Google.

Topic: Ch. 11 Needs, Pain and Solutions Case: Daily Worth

Need to have or like to have?

- Your product or service should address someone’s pain. •
- The more acute the pain and the more your solution can relieve the pain, the more likely it is that someone will buy your product. •
- “Are you selling **vitamins or aspirin?**” – Josh Linker Detroit Venture Partners •
- Vitamins are nice to have. Aspirin for a headache or other severe pain is a “need to have.” •
- “Businesses that service burning demands and visceral human needs tend to accelerate faster and require far less marketing push than those that offer stuff customers can easily live without.”

Check the examples given

Supply and demand suggests that when the price goes up the demand goes down. Not always! - Price elasticity of demand

Drivers of Innovation: Product Innovation –radical or incremental, Knowledge push, need pull, process innovation, bottom of the pyramid, crisis driven, mass customization, user innovation, imitation, recombinant innovation, design driven innovation, pure accidents

Forces economic, social, technology, and political/regulatory

Size, durability, and timeliness

Examples: **Case: DailyWorth**, MGHPCC, Tesla

Topic: -Ch 12: New Product Development

Steve Jobs: Start with the customer and work backward; LeanLaunchpad-Customer Discovery/Development.

Ten times better rule. Creative Destruction and Disruptive Innovation

Andy Grove: “Only the Paranoid Survive”; Netflix and Blockbuster example.

Diffusion of Innovation –Rogers; types of decisions: individual or Collective or Authoritative;
S-curve of adoption from innovators to early adopters to early majority to late majority to laggards. Crossing the Chasm from early adopters to early majority. Then in the “bowling alley” of early majority to “tornado” to late majority to main street.

Barriers to adoption: Economic, Behavioral, Organizational, Structural

Factors: Relative advantage, compatibility, complexity, trialability, observability

Intellectual property (IP) Patents, Copyright, Trademark, Trade Secrets. Since 2013 is first to file instead of first to invent. Must be novel, non-obvious, and useful to patent. Patents can be utility, design or plant patents,

Copyright: literary works, music, art, pictures, videos, etc. © Trademark: symbols ™ . Trade Secrets -like Coca Cola formula -must actively keep secret.

Topic: Ch 13 Intellectual Property

IP: Patents, Trademarks, Copyright, Trade secrets. 2013 from first to invent to first to file.

no gene patents for naturally occurring genes.

Patent: useful, novel, non-obvious Utility-20 years, Design-14 years, plant-20yrs

-Business method patent: Amazon One Click, Priceline-Name your Price, NetFlix –customer rental list

-Provisional patent – 1 year

-Patent Advantages: monopoly, resist imitation, raise capital, can't be used by others as trade secret, licensing strategies

-Patent Disadvantages: disclosure, only 20 years, can be circumvented, hard to defend, tech changes, multiple patents world-wide

Trademarks:-Words -Excluding: Pure description of a product/service, Deceptive marks, A mark consisting primarily of a surname; -Numbers and letters; -Designs or logos -Must be distinctive rather than generic; -Sounds – Distinctive ; -Fragrances – Cannot enhance the use of the product; -Shapes – No impact on the product's function; -Colors – not functional; -Trade dress-The manner in which a product or a business is “dressed up” to appeal to customers is protectable.

Copyright -literary works, musical compositions, software, dramatic works, choreographic or pantomime works, pictorial, graphic and sculptural works -fair use

TradeSecret -Must not disclose, not known outside company, need to know, guarded stringently, valuable/competitive advantage, costly development, not easily duplicated, discovered, or reverse engineered.

Topic- Ch 14 Marketing Case: Pulichino-Tong

Marketing: The 4 Ps: Product, Price, Promotion, Place/Position

Goliath Paradox –entering a large market with dominant provider need 10x to overcome barriers

Crossing the chasm strategies: Piggybacking, industry placement/position, publicity

Blue Ocean Strategy: Unexploited Market; examples: Cirque du Soleil, Netjets, Southwest Airlines, Curves, Home Depot, Dyson, China Mobil, Wii, Tata Nano, Starbucks

Product/market Fit: “*Customer Validation proves that you have found a set of customers and a market who react positively to the product*” –Blank (they bought it!). Mark Andreessen; “*the life of any startup can be divided into two parts – before product/market fit and after product/market fit.*” He goes on to write: “*When you are BPMF, focus obsessively on getting to product/market fit.* Darwin: *Adapt or die.*”

Segmenting (Example: UMassOnline) and finding the target market then developing the positioning strategy.

Establishing a brand. Don't confuse prestige and brand.

Pricing tactics.

CPA –cost per customer acquisition. CLV- Customer lifetime value. APRU-Ave. Rev. per user. Gross margin. R-Retention rate.

Selling –keys to success. Prospect-Cold contact-qualify-present-meet objections-close (never talk past the close)-followup.

Topic: Ch 15 Entrepreneurship is Global & Case: Harish Hande

Entrepreneurship is Global: Why study? Larger and faster growing markets, consumers worldwide, movement of goods, labor, services, IP; risk of not reaching the 98.5% of the world market (US 1.5% of consumer market)
New opportunities in communication, regulation, and transportation

Why countries, cities, and regions care? GDP correlates with innovation ; jobs and economic advantage.

Enablers: 1. Tech. advances 2. Free trade agreements, 3. Freer movement of people

Research Universities appear to be a great resource

Global Supply chains offer opportunities. “Flat World”

Spillovers –movement of ideas and intellectual property across borders –legal and illegal.

Cluster development –Boston, Silicon Valley, Beijing, Bangalore,

“The Bottom of the Pyramid,” large markets in less affluent regions. Tata Nano; Selco, Grameen, etc.

National Systems of Innovation –positives: large economy, foreign completion in domestic markets, public R&D, venture capital. –negatives: fragmented markets, high corporate taxes, prosperity/complacency.

Specific opportunities: natural resources, local demand, high regional prices, local skill sets

The Rise and Fall of the BRICS.

Global Sourcing; Global Supply Chain

Immigration and Emigration and Entrepreneurship