Starting New Ventures 64-361.202 Chap 2 Recognizing Opportunities and Generating Ideas.

Dr. Jack M. Wilson

Distinguished Professor of Higher Education, Emerging Technologies, and Innovation



Opportunity

- Opportunity- a favorable set of circumstances that creates a need for a new product, service, or business.
- Opportunity gap identifying a missing piece, a NEED, and a new way to fill that gap.
- Not driven by a desire to make and sell. Not an IDEA.
- Driven by filling a markets need to (and ability to) buy.
- Incremental innovation rarely works for new business, but is often the hallmark of established businesses.
 - Building a better mousetrap rarely leads to the market beating a path to the inventor's door –unless it visibly and significantly changes the game for mouse catching!
- Window of Opportunity timely, not too early or too late.



Example: Rabies Mono-clonal antibody

-UMass Biologics Lab

- Discovers monoclonal antibody for rabies
- More effective than current 30 day shot series
- Reduces cost of treatment dramatically
- Reduces suffering of person being treated.
- This is a great IDEA!
- Is it a great OPPORTUNITY?

Example: Rabies Mono-clonal antibody

-UMass Biologics Lab -2

- Is this a great opportunity?
- Is there a huge need and demand for this product by a group that is willing to BUY it?
- Does that identified market represent enough economic incentive to create a business and justify the investment?
- What investment would be needed to bring this to market?
- Market in the U.S. is very small. The few patients are generally treated by public health organizations.
- The cost of doing animal and human clinical trials is huge.
 - Pre-clinical, Phase 1,2,and 3
 - Cost of bringing a drug to market \$1.2 Billion (Tufts -1990-2003) with a lag of over 8 years.

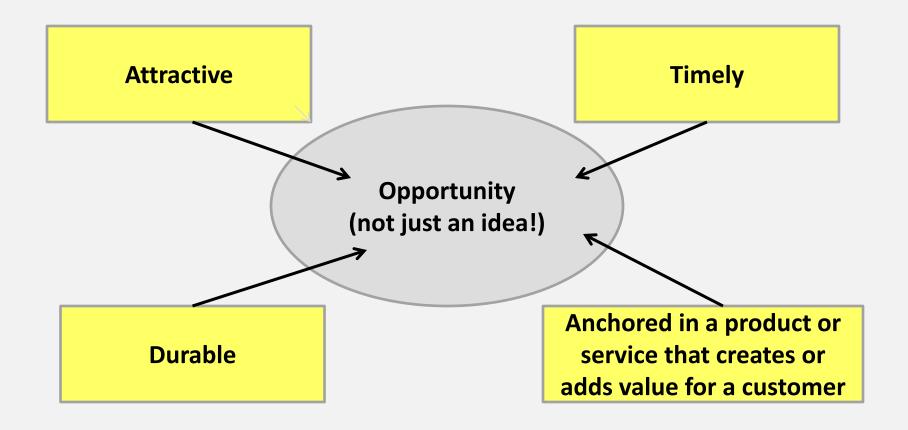


Example: Rabies Mono-clonal antibody

-UMass Biologics Lab -3

- Conclusion: there is no viable US market to justify the investment. There is no (immediate) U.S. opportunity.
- Alternate strategy:
 - Rabies is endemic in India tens of thousands die each year
 - Cost and duration of treatment unsustainable.
 - Cost of clinical trials and development in India is much lower
- Solution: license monoclonal to Indian company for development.
- Future strategy? Bring it back to the US after complete?

Four Essential Qualities or Dimensions





From Trends to Opportunity

Economic Forces

economy income spending

Social Forces

social-cultural demographic trendiness

Technology

new emerging new use for old

Political Forces

political arena regulatory

Gap

Business, Product, Service available vs possible

New

Business, Product, Service

Economic forces -examples

- A rising economy more discretionary income
- A falling economy products that cut costs or expenses
- Increasing or decreasing energy prices
- Increasing income disparity
- Interest rates rising or falling, low or high
- Access to less expensive labor for products
- Many others



Social forces

- The biggie for the last four decades: baby boomers
- Increasing diversity in the workforce
- Formation of online communities and popularity of social networks
- Change from wired phones to mobile phones as dominant communication device.
- Interest in healthy living (see boomers above!)
- Alternative energy –especially "clean" energy.
 - Popularity fluctuates wildly with variation in energy cost.
- Educational need –continuing education. Learning economy.
- Income disparity is also a social force as well as an economic force.



Technology advances

- Personal computing
- The Internet
- Mobile phones.
- Medical Imaging
- Pharmacology
- Biologics
- RNAi microRNA- gene silencing
- Genomics –personal medicine

Political and Regulatory Changes

- Tax policy –gasoline, cigarettes, oil depletion allowances
 - Taxes do 2 things: 1. raise revenue 2. decrease use of thing being taxed
- Health and safety regulation –OSHA, EPA
- Energy policies –alternative energy tax credits etc.
- Cyber-security
- National Health Policy Medicare, Medicaid, Obamacare, Drug coverage, etc.
- Education policies –financial aid, standards, compliance, Clery Act, FERPA, Deemed Exports,

Entrepreneurial Orientation (Lumpkin & Dess -1996)

Environmental Factors

Dynamism, Munificence, Complexity, Industry Characteristics

Entrepreneurial Orientation

Autonomy, Innovativeness, Risk taking, Proactiveness, Competitive Aggressiveness

Performance

Sales growth, Market share, Profitability, Overall performance, Stakeholder satisfaction

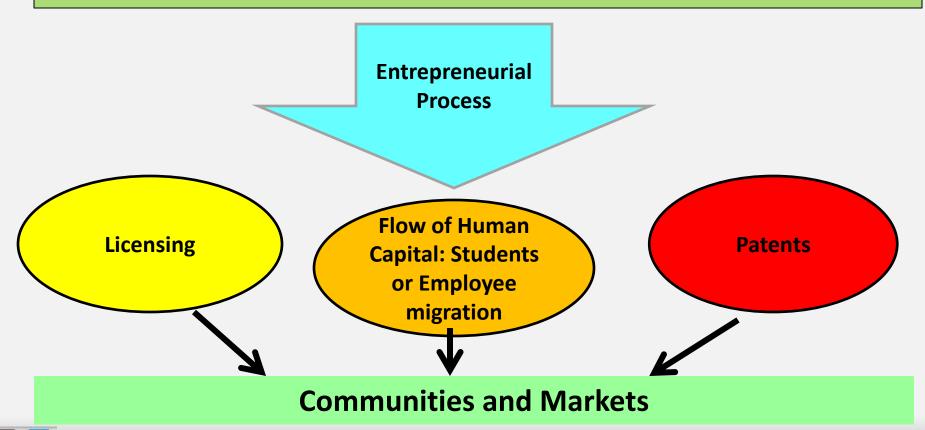
Organizational Factors

Size, Structure, Strategy, Strategy making processes, Firm resources, Culture, Top management team characteristics



From Idea to Market or Community Use

Idea Generators: University Research, Corporate Innovation, Individual Invention, Social Innovation, Intellectual Capital





Tesla Motors -all electric high performance cars

- Economic Trend increasing gas prices
- Social Trend –desire to be green
- Technology Advances –Battery and motor improvements
- Political Regulatory Trend favorable treatment and support for alternative energy systems.





Opportunity Recognition

- Solving a problem
 - Every problem is a brilliantly disguised opportunity –Gardner
- A major problem in the 90's: The Learning Corporation
 - Rapid changes in technology, computers, the internet, globalization, and intense economic competitiveness were forcing companies to adapt. To adapt, their employees had to learn many new things.
 - Employee training is expensive –especially for large geographically distributed firms.
 - How could they provide rapid learning opportunities to employees without breaking the bank at a time when economic competition was ferocious?
- Later we will discuss a case study of ILinc LearnLinc as an example of one solution.



Problems and Solutions

- Elevator wait mirrors
- Children online parental safety software.
- Cell phone battery life –solar chargers, crank phones, etc.
- Hospital sanitation –washing monitors, anti-microbial materials
- Undershirts un-tucked –Tommy John long undershirts

Market Gaps

- No women's guitars
 - Daisy Rock
- Hard to find green jobs
 - GreenJob Spider
- Fashionable clothing-odd size
 - Lane Bryant, CasualMale, Ashley Stewart, RealKidz, iGigi, Bodacious
- Fast Casual-Fast food that is better than the usual
 - Panera, Chipotle, Cosi, Brueggers
- Soft drinks that are healthier
 - Snapple succeeded, Clearly Canadian failed
- Can you all think of examples?



Opportunities need to be *Recognized*.

- People recognize opportunities. Some are good at it. Others?
- Characteristics
 - Prior Experience
 - Cognitive Factors –entrepreneurial alertness
 - A major key factor is market awareness and sensitivity.
 - Social Networks –solo entrepreneurs and network entrepreneurs
 - Strong tie relationships frequent interaction
 - Often tend to see problems in the same way
 - Weak tie relationships –in-frequent
 - Weak ties are shown to lead to more ideas –different perspectives.
 - Creativity the process of generating new, often unique, and useful, ideas.



Creativity Components

Preparation

- most business ideas stem from previous experience –often at work.
- Malcolm Gladwell -10,000 hour rule –"Outliers"
- Incubation
 - Pondering or ruminating an idea just below the surface.
- Insight –"Eureka" -"Aha!"
- Evaluation
 - Viability –find the weak spots. Don't be blinded by a dream
- Elaboration
 - Working out all the details –doing the business plan

Idea Generation Techniques

Barringer's take on this. OK, but not my own take.

- Brainstorming
 - No criticism
 - Freewheeling crazy ideas
 - Fast pace –no pontificating or arguing
 - Leapfrogging
- Focus groups
- Library and internet research
- Other: customer advisory boards, day-in-the-life research
- Create an idea bank on your intranet.



Scott Berkun: Myths of Innovation (www.scottberkun.com)

Microsoft programmer/project manager-IE, Windows - Author

- The myth of epiphany
- We understand the history of innovation
- There is a proven method
- People love new ideas
- The lone inventor
- Good ideas are hard to find
- Your boss knows more about innovation than you
- The best idea wins
 - All WRONG!!!



Creativity

Inhibitor	Facilitators
Fail to hire creative	Hire creative
Stifling culture	Reward creativity
Pigeonhole people for years	Give employees varied experiences
"Tried it-didn't work" all ideas already known	Tolerate challenges to established ideas
Hire like minded people	Hire diverse skills, experiences, and viewpoints



Supervisory approaches to creativity

Inhibitor	Facilitators
Pessimistic- judgmental -critical	Be supportive of early ideas
Punish failure	Learn from failure
Force certainty and precision too early	Protect honest mistakes as long as learning occurs
Remain distant and inattentive to employees ideas	Treat employees as equals –non- hierarchical

Protect Ideas –Intellectual Property

- Put into tangible form with dates and key ideas.
 - Trade secret
 - Patent
 - Note: authors explanation of patents is wrong. It is no longer first to invent –it is first to file.
- Keep it in secure manner
 - Industrial cyber-espionage has been an epidemic and large countries have even been accused of being involved on behalf of key industries.
- Avoid prior disclosure
 - If you disclose an idea publically —either in a talk or paper —you forfeit the right to patent it.
- We will return to Intellectual Property in more detail later in this class.

