

Session 2 - Opportunity Identification/Evaluation

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- Executive Director - The Institute for Innovation & Entrepreneurship at UTD
- UTD School of Management – teaching graduate courses in entrepreneurship, leadership, strategy and organizational behavior
- 30+ years of business experience as consultant, CEO, COO, marketing and financial executive; managed two IPOs and five successful turnarounds
- Diverse industry experience: electronics and heavy equipment manufacturing, transportation, aviation services, equipment leasing, computer hardware/software and government contracting
- AB (economics) Dartmouth College; MBA Amos Tuck School at Dartmouth; Ph.D. (strategic management) UT Arlington

Overview

- How do we define opportunity?
- Needs, solutions, business models & strategies
- Where do entrepreneurial ideas come from?
 - Pattern recognition
 - Active search
 - Alertness
 - Prior knowledge
- Ed & Charlie's Great Invention (*a technology commercialization parable*)
- Checklist For Opportunity Evaluation
- Questions?

How Do We Define Opportunity?

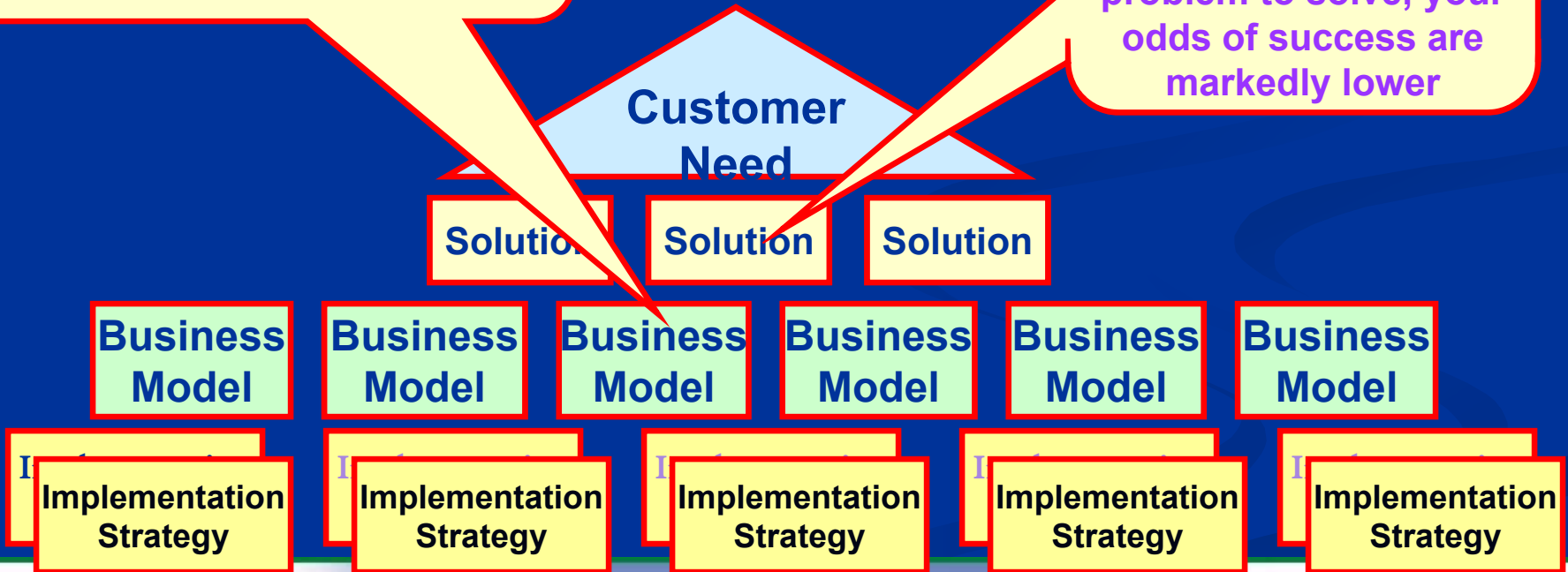
- *Opportunity*: A perceived means of generating economic value (i.e., profit) that previously has not been exploited and is not currently being exploited by others.
- Three central characteristics of a viable opportunity:
 - *Potential economic value* (the capacity to generate profit)
 - *Newness* (something that did not exist previously)
 - *Perceived desirability* (moral and legal acceptability in society)
- Opportunities emerge from a complex pattern of changing conditions – they come into existence at a point in time because of the juxtaposition of conditions (needs, solutions, business models) which did not previously exist

Needs, Solutions, Business Models & Strategies

If you “lock in” to a specific model and strategy without exploring alternatives, you may miss the best approach

...be the starting point...
...there are multiple solutions
...there are multiple delivery options
...there are multiple implementation

If you start with a “cool” technology and then look for a problem to solve, your odds of success are markedly lower



Where do Entrepreneurial Ideas Come From?

- It is extraordinarily difficult to come up with a great idea...
 - In the library
 - On the internet
 - In your rocking chair
- Great ideas involve hard work – immersion in an industry and a single-minded focus on solving a real problem for a real customer
- Most successful innovations are not about creating new technology
 - The underlying technologies are already in existence – the innovation comes from linking technology to what buyers value
- More than 70% of entrepreneurial businesses have their roots in the founder's last job

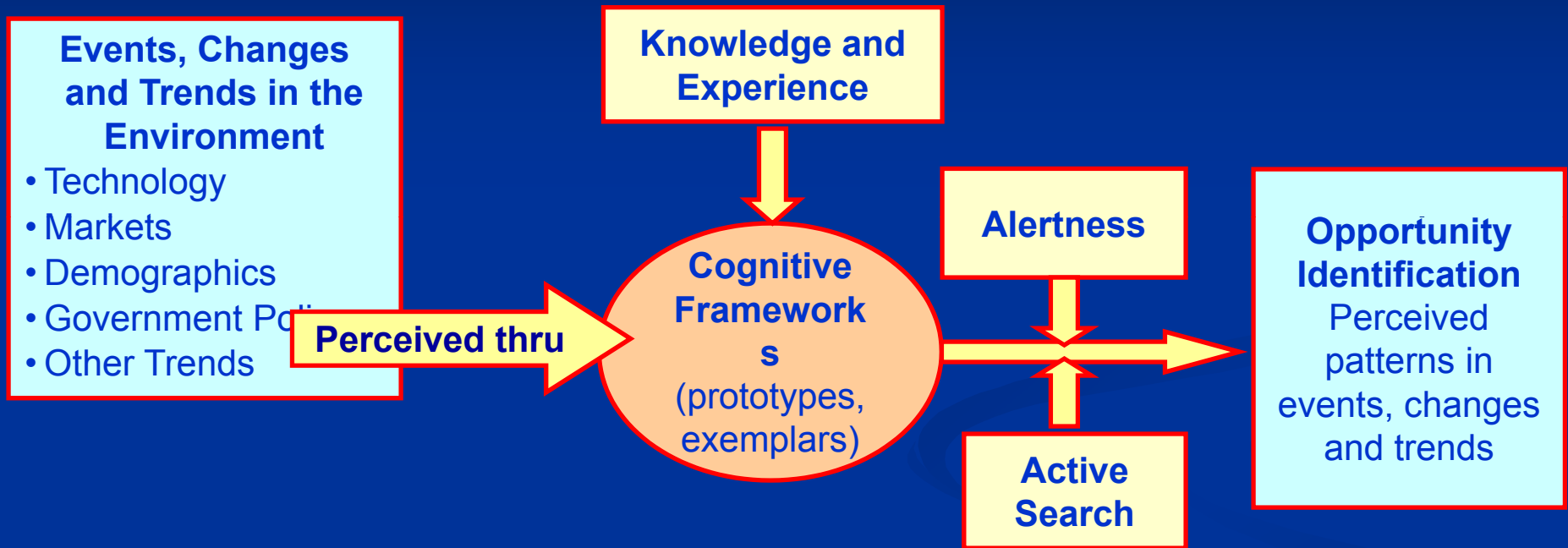
Opportunity Identification as Pattern Recognition

- *Pattern recognition* plays a central role in opportunity identification:
 - *Opportunities emerge* from a complex pattern of changing conditions – they come into existence at a point in time because of the juxtaposition of conditions which did not exist previously.
 - *Recognition of opportunities depends*, in part, on individual cognitive structures - frameworks developed from experience that provide the cognitive basis for “connecting the dots” into patterns suggestive of new business opportunities
- One reason why specific persons (and not others) perceive such patterns is that they possess the cognitive frameworks that permit them to do so.

Key Factors in Opportunity Recognition

- Active search
 - Entrepreneurs are more likely to engage in active search for opportunities
 - Focused in a particular domain: rely more heavily on personal contacts and specialized publications than on sources of general information
- Alertness
 - Opportunities often recognized by people not engaged in active search
 - Abundant natural curiosity and a broad range of interests is helpful
 - Related to cognitive capacities such as high intelligence and creativity
- Prior knowledge – access to appropriate information
 - Information gathered through rich and varied life experience
 - Leveraging a rich and varied network of contacts and associates

Pattern Recognition in Opportunity Identification



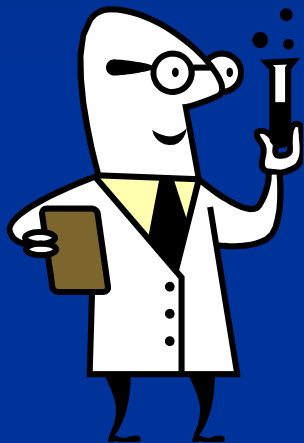
From Baron, R.A. *Opportunity Recognition as Pattern Recognition*.
Academy of Management Perspectives.
Feb 2006

Ed & Charlie's Great Invention

(A Technology Commercialization Parable)

Ed & Charlie's Great Invention

(a technology commercialization parable)



**Ed - Engineering Professor
Homeland Security Project
Ultrasonic Border Defense
System**



**Martha - Secretary
Biology Department**



**Charlie - PhD Student
Genetics Lab**



Ed & Charlie's Great Invention

(A Technology Commercialization Parable)



Homeland Security Project
Ultrasonic Border Defense System

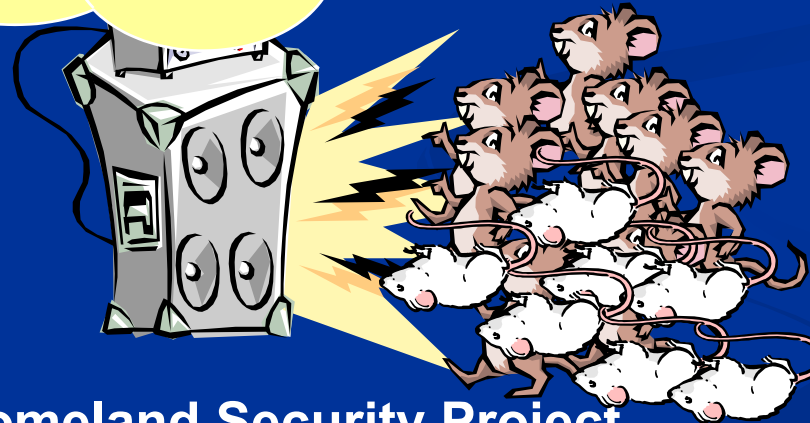
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PIAF

ERASE

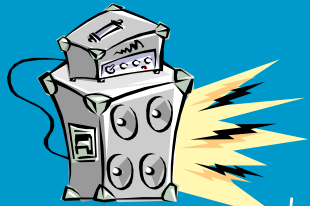
Exotic Rat & Squirrel
Eliminator ... A Better
Mousetrap



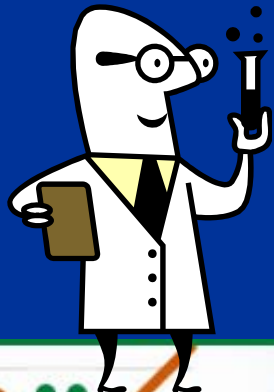
Homeland Security Project
Ultrasonic Border Defense System

The Fallacy of Global Market Estimates

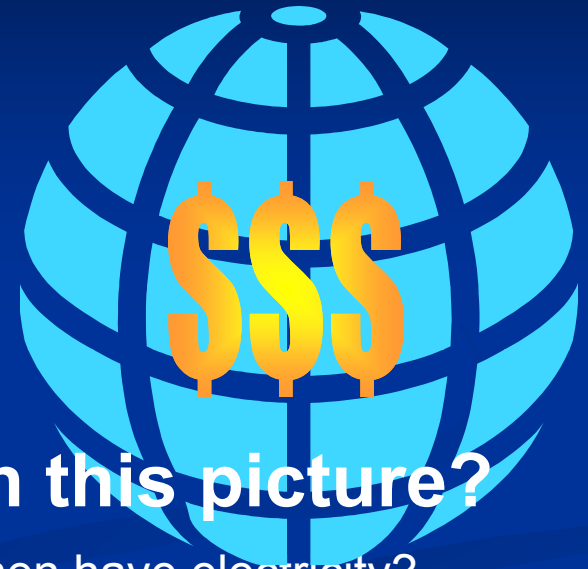
ERASE, Inc.



- 6,446,131,400 People
- 50% Women
- 90% afraid of mice
- = 2.9 billion potential customers



And Visions of \$\$\$ Danced in their Heads

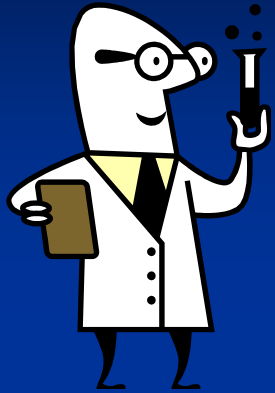


What's wrong with this picture?

- How many of the 2.9 billion women have electricity?
- How many are satisfied with existing solutions (mousetrap, cat, etc.)?
- How many could afford or would choose a \$300 mousetrap?
- Their market extrapolation assumes an \$870 billion total market estimate; in reality, the global Pest Control market (including services, baits, poisons, etc.) is only about \$10 billion.

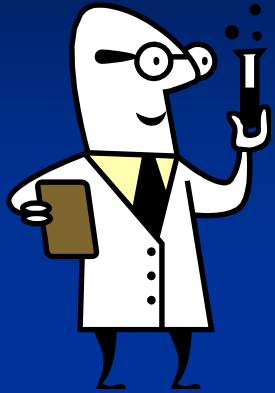


A Checklist for Opportunity Evaluation



- Ed and Charlie have invented a better mousetrap – we'll give them that – but is it realistic to assume that the world will beat a path to their door?
- A more important question: given that a number of other potential markets can be identified, is rodent control the right place to start?

A Checklist for Opportunity Evaluation

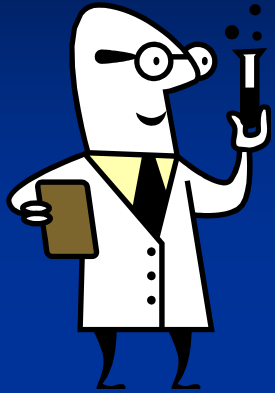


- You must begin by understanding the basic transaction:

Why is someone (your customer) going to pay you (substantially) more for the good or service you are providing than it will cost you to produce?

- Opportunities can be evaluated one step at a time – following a Checklist for Opportunity Evaluation

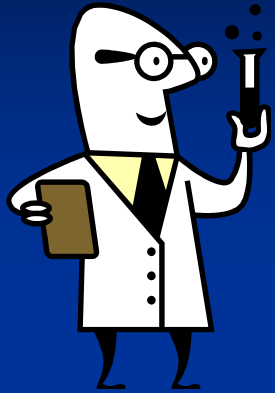
A Checklist for Opportunity Evaluation



1. Who is the customer? What are his needs? What are his alternatives?

- Who is the target customer?
- Can we identify a set of customers by name?
- What customer need would be satisfied by our offering (do they realize they have a need)?
- How important is meeting that need to the customer (a “nice to have” or “essential”)?
- What are the customer’s alternatives (competition)?

A Checklist for Opportunity Evaluation



2. **Competitive advantage:** Why will customers buy this product/service from us rather than from one of our competitors?

- Better product at the same price?
- Same product at a lower price?
- Meets the needs of a particular group of customers better than any other offering?
- Unique technology protected by patents?
- Is the competitive advantage sustainable? How?



X Eff

A customer takes on a huge risk in displacing a known solution with a new and unproven product or technology from a not very well established company

Every entrepreneur's "baby" is beautiful in his eyes – often blinding him to the possibility of alternate solutions

Consumers are usually:

- *Skeptical about a new product's performance*
- *Unable to see the need for it*
- *Satisfied with the existing product*
- *See what they already own as the status quo*

Consumers tend to overweight the incumbent product's benefits by a factor of three

3 X 3

Entrepreneurs tend to overweight the new product's benefits by a factor of three

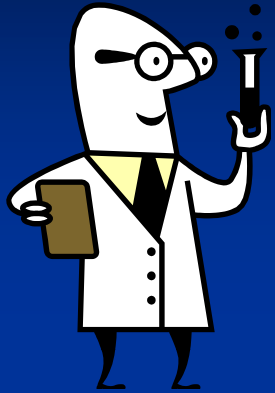
9X

Entrepreneurs are usually:

- *Convinced their innovation works*
- *Likely to see the need for the product*
- *Dissatisfied with the existing substitute*
- *Viewing the innovation as the benchmark*

From: Gourville, J.T. *Eager Sellers, Stony Buyers: Understanding the Psychology of New Product Adoption* . (HBR June 2006)

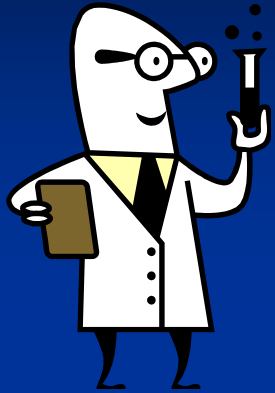
A Checklist for Opportunity Evaluation



3. Assessing Viability: Is there a business (market) opportunity?

- Scope of target market (geographic/demographic)
- Potential (how many customers in target market?)
- Market penetration (how many potential customers will buy?)
- Share of market (realized vs. potential)
- Competitors (how is the need currently being met?; is our offering demonstrably better?)

A Checklist for Opportunity Evaluation



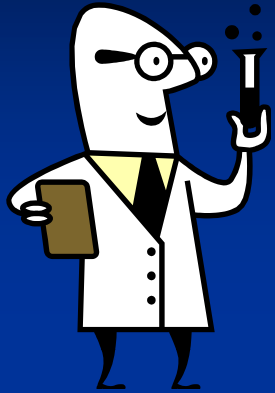
4. Critical success factors

- What three or four things must go right in order to succeed?
- Is our management team capable of making it happen?

5. Timing considerations

- Is the window of opportunity broad or narrow?
- Is timing critical to capturing market share?
- Who else is trying to get there first?

Who Needs a Business Model?



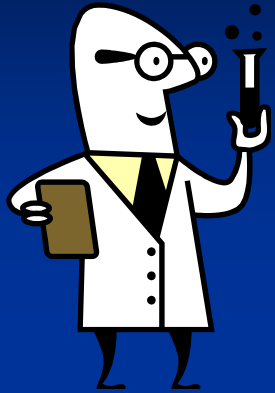
5. Do we have a viable Business Model?

- How will we reach our customer (sales & distribution)?
- How will we produce the product?
- How will we price the product?
- How will we support the product after the sale?

6. Can the business be profitable?

- Selling price (to achieve target volume goals)
- Cost to manufacture, distribute, sell, service, support (function of volume)?
- Other costs?
- Cost/volume relationships?
- Breakeven point?

Managing Risks



- **Technical risk** – will it work?
- **Market risk** – will they buy?
- **Competitive risk** – can we sustain a competitive advantage?
- **Implementation risk**
 - Leadership
 - Resources
 - A viable business plan?
- **What could go wrong?** (remember Murphy's Law)

What Kinds of Opportunities to Pursue?

- Prospective entrepreneurs should look for:
 - Markets in flux rather than stable or mature markets
 - Industries with low capital requirements and flat or declining returns to scale (few large competitors)
 - Markets where customers will pay a significant premium for customization and personal service
 - Products or services where the unit sale is large enough to support a direct sales effort
- The entrepreneur has to judge which issues need careful analysis and which should be taken for granted

Summary

- Entrepreneurial success takes more than a bright idea, luck and hard work. You must also have:
 - A real customer need (recognized by the customer)
 - The best solution to meet the need (or close to it)
 - A viable business model
 - Timing, resources, management talent, partners and allies
- A clever technology or a bright idea does not mean that the world will beat a path to your doorstep
 - Opportunities must be evaluated quickly, but carefully and deliberately, to avoid making the most common errors

For Further Information

- Baron, R.A. *Opportunity Recognition as Pattern Recognition*. Academy of Management Perspectives. Feb 2006
- Drucker, P.F. 1993. *Innovation & Entrepreneurship*. HarperBusiness. New York.
- Bhide, A. 1996. *The Questions Every Entrepreneur Must Answer*. Harvard Business Review. Nov-Dec 1996.
- Gourville, J.T. 2006. *Eager Sellers, Stony Buyers: Understanding the Psychology of New Product Adoption* HBR June 2006
- The Institute for Innovation & Entrepreneurship at UTD:
<http://innovation.utdallas.edu>

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With Thanks to the Little Guy Who Made It All Possible

Questions?



Elvis