

Recognizing Opportunities

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What is an 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.
- An opportunity is NOT driven by a desire to make and sell.
- An opportunity is NOT an IDEA –unless that idea is directed at solving a problem that people will pay for.
- An opportunity is driven by filling a markets need to (and ability to) buy.
- Some innovations are radical –an entirely new way to solve a problem or an entirely new product.
- Other innovations are incremental, or sustaining, and are extensions of existing solutions that are somewhat better.
- 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.
Opportunities depend upon acting at the right time. Too early and too late are sure ways to fail.

Opportunity Gap

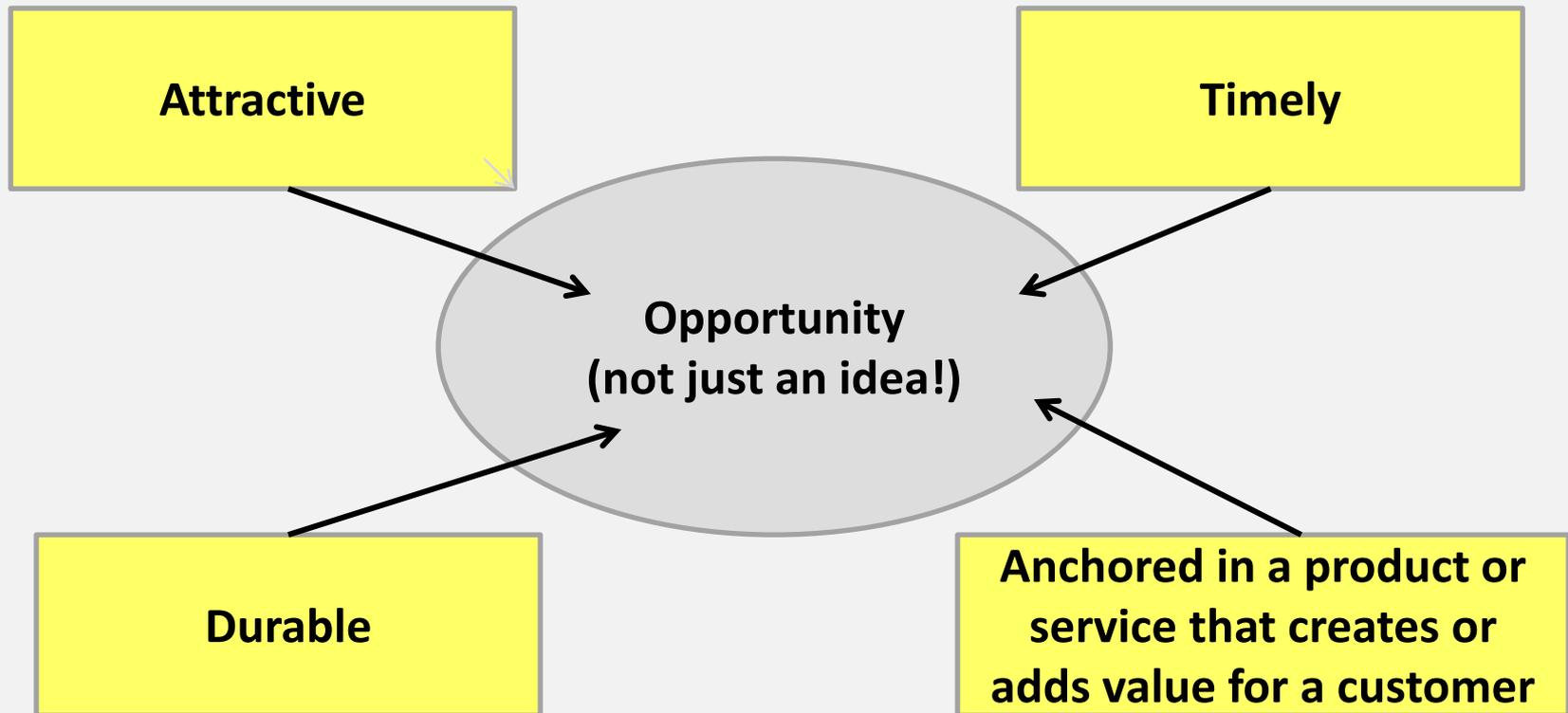
- Here are three ways to look for opportunity gaps –if many people share the same concern.
(Extraordinary Entrepreneurship, Stephen C. Harper, John Wiley)
 - 1. If only there was a business that....
 - 2. I wish I could buy a product or service that...
 - 3. There has to be a better way to...
- I wish I could find a gym that was not full of health nuts that intimidate me. => Planet Fitness
- I wish I could find a tee shirt that did not come untucked so often => Tommy John Underwear
- I wish I could carry my music with me everywhere => iPod
- I'm tired of carrying a phone, camera, laptop computer, and music player around with me => iPhone and other smart phones.
- I wish I did not have to transfer my files among my various computers => cloud computing
- I wish that I could better keep in touch with my friends and family => social media- Facebook, Twitter, Snapchat, LinkedIn, etc.

Four Criteria:

- **Durable: Has staying power**
 - Enough staying power to allow to be monetized.
- **Timely: not too early nor too late**
 - The market is ready to buy
 - The market has not already settled on an alternative
- **Attractive: rewards exceed the cost**
 - That include your return on investment (ROI)
 - Also the return on your time (ROIT).
 - There are direct costs but there is an opportunity cost in time and money.
- **Adds Value**
 - Is it a product or service that your target market would find valuable?

Four Essential Qualities or Dimensions to an Opportunity

- An opportunity needs to be attractive, timely, durable, and anchored in a product or service that creates or adds value to a customer.



Example: Rabies Mono-clonal antibody –UMass Biologics Lab

- Researchers at the UMass Biologics lab of the UMass Medical School discovered a monoclonal antibody for rabies.
- It is spectacularly more effective than current treatment regimen of a 30 day series of rabies vaccine shots.
- It reduces the cost of treatment dramatically from current treatments
- It reduces the suffering of person being treated.

- Now, This is a great **IDEA!**

- Is it a great **OPPORTUNITY?**

- For an idea to become an opportunity it needs a market ready and willing to pay for the alternative.

Example: Rabies Mono-clonal antibody –UMass Biologics Lab -2

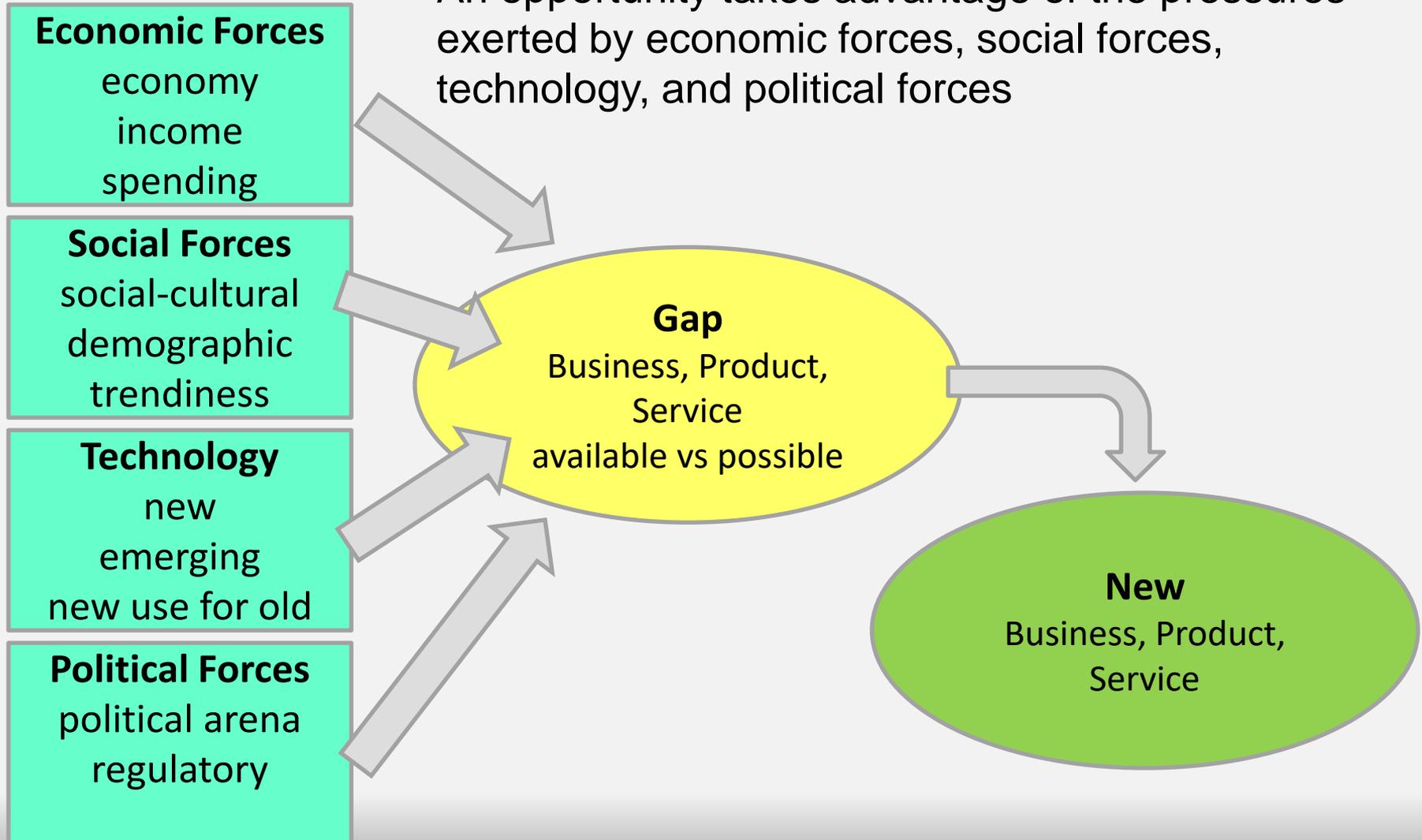
- Is this a great opportunity? Ask yourself:
 - Is there a huge need and demand for this product by a group that is willing to BUY it?
 - Does that identified market represent enough economic incentive to create a business and justify the investment?
 - What investment would be needed to bring this to market?
- The market:
 - The market in the U.S. is very small. Very few persons are treated for rabies each year. 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)
 - It takes an average of over 8 years to bring that drug to market.

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.
 - It is too expensive and takes too long to reach a very small market.
 - That is agonizingly sad, but absolutely true
 - It is also not that unusual in the medical field.
- Is there an alternate strategy to convert this IDEA into an OPPORTUNITY?
 - Rabies is endemic in India and tens of thousands die each year
 - The cost and duration of treatment is unsustainable for so many victims in very poverty stricken regions..
 - The cost (and regulatory burdens) of clinical trials and development in India is much lower
- Solution: license the mono-clonal antibody to an Indian company for development.
- Future strategy? Bring it back to the US after it is established in the market in India and other regions with more patients.

From Trends to Opportunity

- An opportunity takes advantage of the pressures exerted by economic forces, social forces, technology, and political forces



Failure to do a good job of evaluating an opportunity.

- The Segway case provides a cautionary tale of what can go wrong when the opportunity is not carefully evaluated.
 - Segway: <http://www.jackmwilson.net/Entrepreneurship/Cases/Case-Segway%20Case.pdf>



Economic forces -examples

Here are some examples of economic forces:

- A rising economy – more discretionary income
 - Until recently the growing China market has been one of the key factors driving the world economy.
- A falling economy – products that cut costs or expenses
- Increasing or decreasing energy prices
 - Gas prices are falling. Hybrid sales are down and truck sales are up.
- Increasing income disparity between groups.
- Interest rates are rising or falling, are low or high.
- Access to less expensive labor for products
- There are many others. Can you think of some?

Social forces

- This is the biggie for the last four decades: the **baby boomers** have changed every part of society as they have gone through the many stages of life from birth to retirement!
- The increasing diversity in the workforce has created many new opportunities.
- The formation of online communities and popularity of social networks
- The change from wired phones to mobile phones as the dominant communication device.
- An interest in healthy living (see boomers above!)
- Increasing use of alternative energy –especially “clean” energy.
 - Popularity fluctuates wildly with variation in energy cost.
 - As oil and gas prices decrease –alternative energy is less economical
- Educational need –continuing education. We are living in a learning economy in which a large premium is paid for education and skills.
- Income disparity is also a social force as well as an economic force.

Technology advances

Here a few technology advances that have helped to define the economy we live in today:

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

Take a few moments to reflect and consider some of the new products, services, and companies that have been enabled by these advances.

Three technology advances that defined our present

- The incredible advances that we have seen in computing, communication, and cognition have been driven by three rules:
- Moore's Law
 - The number of components on a chip, and hence the computing power, doubles every 18 months.
- Metcalfe's Law (Network Economics)
 - The Value of a network scales as the square of the number of those connected to it.
 - Value: economic, personal, societal,....
 - Double the network = four times the value!
 - "network economics" or "network externalities"
 - Social media depends upon capturing the largest network. If you double your network, you quadruple the desirability of your social media network.
- Gilder's Law (Bandwidth deployment)
 - Bandwidth deployment doubles every 6 months (three times as fast as computing power doubles).
- More details on these three can be found at:
<http://www.jackmwilson.net/Entrepreneurship/Cases/Moores-Meltcalfes-Gilders-Law.pdf>

Political and Regulatory Changes

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

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.



Execution Trumps Opportunity

- “Trust me, your idea is worthless”
 - Tim Ferris in the opening essay in Wise and Feld.
- “Ideas are a dime a dozen. People who implement them are priceless.”
 - Mary Kay Ash of Mary Kay Cosmetics

Research on why smart people do (and say) dumb things

- Extensive research has documented the sources of biases that catch many smart people in mistakes. The research also shows that those smart people do not even recognize they are doing it –but others often do.
 - Important reason to have advisors and take them seriously.
 - Aircraft co-pilots are now trained to criticize the captain.
- Confirmation bias- Confirms an existing bias.
 - If you already believe something, you will notice evidence to support the belief and ignore that which contradicts the belief.
- Overconfidence –
 - Research says that we all think we are above average. Sometimes we call that the “Lake Woebegone” effect.
- Availability bias –if it is easy to imagine than it must be common!
 - You have seen news stories on shark attacks (or terrorists) so you think they must be common.
 - And the reverse (black swans –I’ve never seen a Black Swan so they do not exist.) Look for evidence and not just for what we expect.
- Prospect theory: Too much importance given with too small differences
 - A 1% chance appears much better than zero - which it is not or
 - a 99% chance is much worse than 100% - again it is not).
 - Also, it depends upon expectations –anchor point
 - Marketing professionals use the anchor point to set your expectations! It works on even the smartest and most trained people.
- “*Thinking Fast and Slow*” - Great book by Nobel Prize Winner Danny Kahneman

Nudging

- The 2017 Nobel Prize winner was Richard Thaler of the University of Chicago for his work in behavioral economics.
- His particular contribution was in the area of “nudging.”
- He wrote a book with Cass Sunstein of Harvard entitled “Nudge.”
- This work builds on the biases revealed in earlier work to nudge people in the direction of a desired decision.
- Marketing departments use his work to nudge you toward a decision to buy their product.
- Governments use his work to nudge you toward making better decisions –at least from their perspective!
 - <https://www.economist.com/blogs/freeexchange/2017/10/2017-nobel-prizes>