Entrepreneurship for Computer Science

Market Research & Beachhead Markets

Today…

- Last Session:
    - The reality of startups
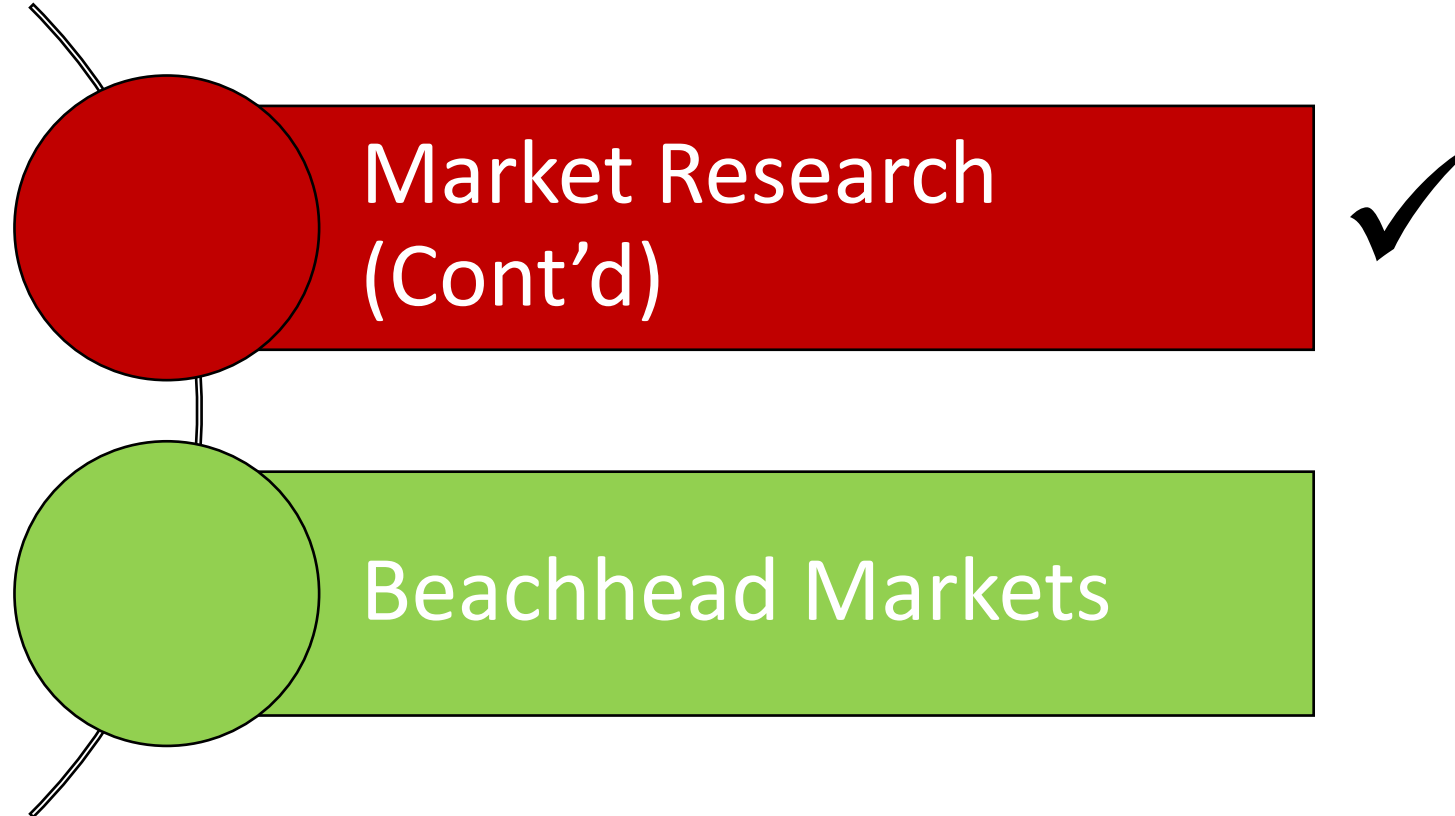   - Passion checklist
    - Team
    - Market segmentation

- Today's Session:
    - Market research & beachhead markets (a brief intro)

- Announcement:
    - PS1 will be out by tonight. It is due on Jan 23 by midnight.

Outline

Market Research (Cont'd) ✔

Beachhead Markets

Types of Market Research

Type	Definition
Primary Market Research	Involves "direct" interaction with (potential) customers to understand their situations and gain knowledge specific to your (potential) new venture
Secondary Market Research	Involves "indirect" investigations, especially via collecting information from reputable sources other than potential customers (e.g., standard industry and government reports)
Qualitative Market Research	An exploratory process that helps understanding qualitatively a subject matter, which might lead to new testable hypotheses (can be used in primary and secondary types of researches)
Quantitative Market Research	Focuses on gathering specific data, which prove or disprove a certain hypothesis

Obstacles to Effective Primary Market Research

- Although the concept of primary market research is very simple (go out and interact with potential customers), it can prove very hard to some people (especially engineers and computer scientists!)

- Some Obstacles:
  - Lack of a structured process: design a clear and thoughtful process before starting (*more on this shortly*)

  - Not properly executing the designed process: planning and execution require different skills

Obstacles to Effective Primary Market Research

- Some Obstacles:
  - Confirmation bias:
    - This bias involves seeing only the information that confirms your worldview
    - It can easily creep in based on how you design your process, inadvertently prompting customers to provide answers you want to hear
    - It becomes stronger after you build your product, leading to an effect known as the IKEA effect (*the "IKEA Effect": When Labor Leads to Love, by Michael I. Norton, Daniel Mochon, and Dan Ariely*)
    - Be objective and do not "lead the witness"
    - Apply "replication" (as in computer systems)

Obstacles to Effective Primary Market Research

- Some Obstacles:
  - Selection bias:
    - An ill-representative sample leads to incorrect conclusions
    - Select a representative sample and consider weighting responses if needed

  - Social acceptability bias: Interact with people who do not have a social connection with you so as to get a brutally honest feedback

A Process for Primary Market Research

1. Develop a thoughtful plan
   - Each potential customer is a very valuable and precious source of information. If you do not develop a thoughtful plan, you might not get the best out of your potential customer

   - A plan ensures "consistency" across interviewees, which allows detecting insightful "patterns"

   - Develop a light, yet deep questionnaire (this should be a teamwork). Do not add friction by asking sensitive data or too many facts

   - If necessary, adapt judiciously your questionnaire as you collect data

A Process for Primary Market Research

2. Start with secondary research, at least to learn the basics of your target industry

3. Start qualitative before quantitative, especially that qualitative can yield testable hypotheses

4. Ensure that demographic (e.g., age, gender, etc.,) and psychographic (e.g., personality, opinions, lifestyles, etc.,) characteristics match your (potential) customer group

A Process for Primary Market Research

5. Target "watering holes" (i.e., places where your potential or existing customers congregate physically or virtually)
   - E.g., For fitness enthusiasts, it is probably gyms
   - E.g., For women about to get married, it is probably Pinterest
   - E.g., LinkedIn or Facebook groups
   - E.g., Google or Facebook Ads

6. Use small "n" in qualitative stage and big "N" in quantitative stage (n and N refer to numbers)

A Process for Primary Market Research

7. Trust and verify
   - Optimistic approach (as in computer systems, especially in caching and concurrency control)
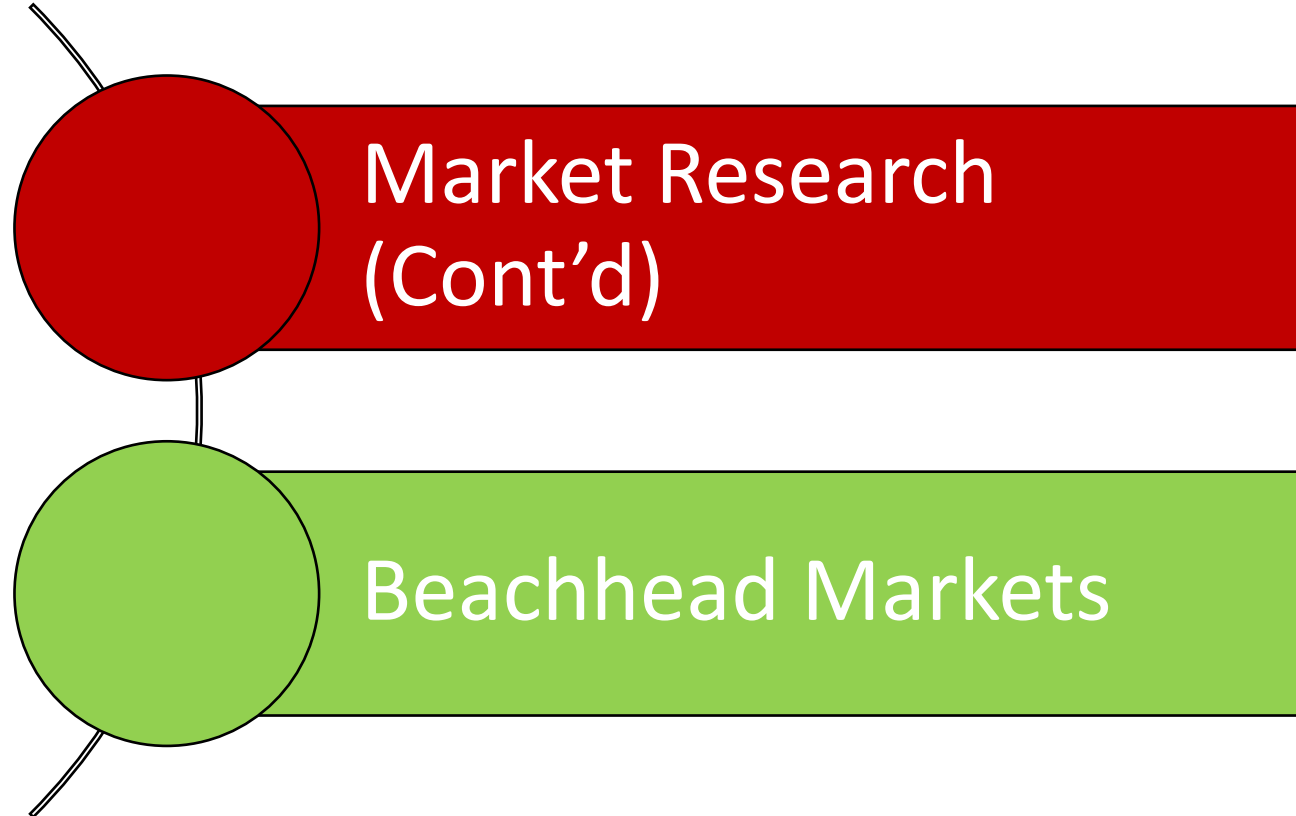   - Consistency can yield "patterns", which can act as verifications

8. Act like a journalist
   - Be in "inquiry" mode and not a bit in "advocacy" mode
   - Listen intently and make the person being interviewed feel like she/he is the most important person in the world
   - Use the person's name and reciprocate words
   - Observe nonverbal reactions

Tools for Primary Market Research

Tool	Description
Customer Interviews	By and large, the most common tool. It is "essential" for qualitative research and "good" for quantitative research
Observation	Watch (potential) customers in your target industry
Immersion	Do the (potential) customer's work and fully experience all its dimensions
User Tests	Apply A/B testing: • Randomly divide (potential) customers into groups • Treat groups differently and observe how different treatments affect behaviors and responses

Outline

Market Research (Cont'd)

Beachhead Markets ✓

How to Become a Great Tennis Player?

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Beachhead Market

- In military operations, if an army wants to invade an enemy territory, the army may employ a *beachhead strategy*

- A beachhead strategy entails planning and focusing all time and resources on wining a small strategic boarder area
  - This small area is called *beachhead*

- The beachhead market then becomes the stronghold to land troops and supplies for the bigger invasion to the enemy territory

- The 1944 invasion of Nazi-controlled Europe by the Allied forces is one of the most famous examples of a beachhead strategy

How to Select a Beachhead Market?

- Select a beachhead market via selecting just ONE market opportunity from your market segmentation matrix

How to Select a Beachhead Market?

- In many cases, there are multiple paths to success, hence, it is not imperative to choose the absolute best market

- Alongside, it is better to avoid selecting the largest or very large markets, even if they seem to be the best markets

- The first market you attack will be a significant learning experience (with perhaps a lot of failures) for you, so you are better off learning, *persevering* or *pivoting* in a smaller market

- But, what are the criteria to select a beachhead market?

How to Select a Beachhead Market?

- Here are some criteria that may prove useful in choosing your beachhead market:
  - Is the target customer well-funded? (*affordability metric*)
  - Is the target customer readily accessible to your sales force? (*accessibility metric*)
  - Does the target customer have a compelling reason to buy? (*motivational level*)
  - Can you today, with the help of partners, deliver a whole product? (*readiness level*)
  - Is there entrenched competition that could block you? (*competition level*)
  - Are there entrenched legalities that can block you? (*legality barrier*)
  - If you win this segment, can you leverage it to enter additional segments (i.e., proceed to the bigger invasion)? (*scalability metric*)
  - Is the market consistent with your passions, values, and goals? (*adherence level*)
  - What is the *Total Addressable Market* (TAM) size of this market? (*TAM size*)

What is TAM?

- TAM is the amount of annual revenue (in dollars) your company would earn if you achieved 100% market share in the chosen market
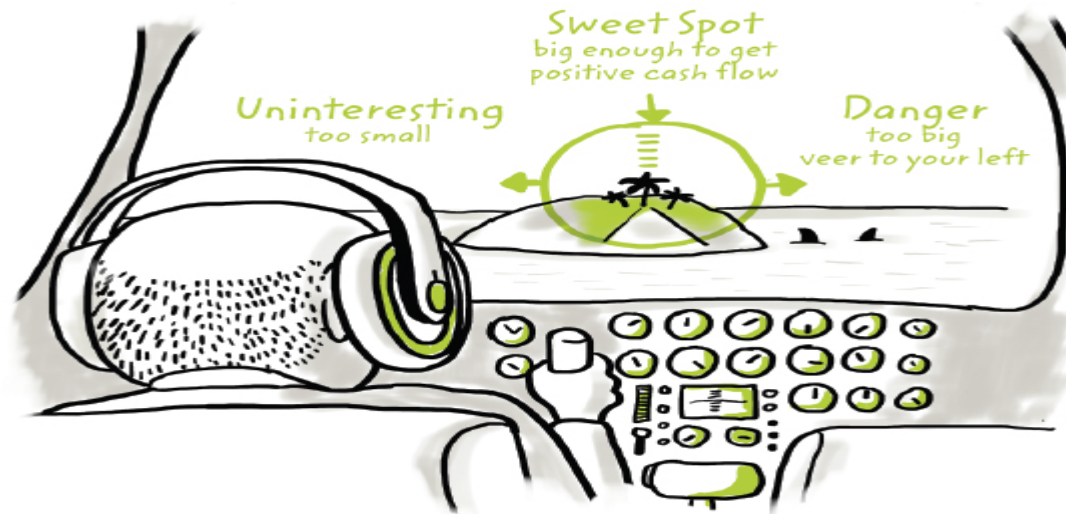
Beachhead TAM calculation is your sanity check that you are headed in the right direction

Next Class

- Beachhead Markets (*Continue*)
- Business Models (*Part I*)