**UDACITY COURSE NOTES**

**Lesson 1 – WHAT WE NOW KNOW**

-more startups fail from lack of customers than from failure of product development

-waterfall engineering is for large, established companies.

-best to implement all the ideas, put it out there, and see which ones people actually want to keep.

-Customer Development: the search and it’s execution.

-Agile Development

-Start with founder spending min of 20% of time outside of building determining customer needs.

-Entrepreneurial Education is about search for the business model.

What’s a Startup? A **temporary** organization (aiming to become a company) designed to **search** for a **repeatable** (consistent) and **scalable** **BUSINESS MODEL.**

**Lesson 1.5A – BUSINESS MODELS & CUSTOMER DEVELOPMENT**

What’s a **BUSINESS MODEL?** How a company creates value for itself while delivering products or services for customers!

**1. Value Proposition:** Solving a problem or need for a customer. Who are your customers? It’s not all about your technology – customers just want to solve a problem or fulfill a need. **Needs are different from products.**

**2. Customer Segments:** You exist for your customers – they don’t exist for you. Get out of building and figure out demographics, social graphics, demographics – figure out who your customer archetype or persona is.

**3. Channels:** How does product get to customer? (Distribution). Used to just be physical – now have virtual as well.

**4. Customer Relationships:** How do I GET, KEEP, and GROW customers? How can I make existing customers spend more money or invest even more?

**5. Revenue Streams:** How do make money selling? What value is the customer paying for? What’s the strategy to capture that value? Different from pricing tactics – it’s the strategy. Must interact with customers until you understand the right revenue stream.

**6. Key Resources:** What are the most important assets to make the business model work? These will be financial, physical, intellectual, human.

**7. Partners:** Who are the key partners and suppliers needed to make the business model work? What activities will they perform, and when? What key resources are we acquiring from them? What key activities do they perform?

**8. Key Activities:** Most important things the company must DO to make the business model WORK?

**9. Costs:** Costs to operate the business model; most important resources to pay for; fixed costs, variable costs, economies of scale; most expensive resources?

**Lesson 1.5B – BUSINESS MODELS & CUSTOMER DEVELOPMENT**

-Hypotheses – how to turn them into facts.

-Start with business model canvas. Stick it on the wall and fill in with stickies. Make it VISIBLE.

-Get out of the building – talk to customers, partners, vendors. Design experiments, tests, etc.

**I. Customer Development Process:**

1. **Customer Discovery** (search)

**(1.5) Pivot ^ v**

**2. Customer Validation –** proposed solution match problem? (Product market fit) (search)

1. **Customer Creation** (execution)
2. **Company Building** (execution)
   * Customer Development is done by the founders, not VP of sales! Founders have the vision and can make PIVOTS each time you get feedback.
   * Don’t just go out and randomly talk to customers. Look for **insights,** not just data. Change canvas as you get insights.
   * Understand why initial hypotheses were wrong.
   * **MINIMUM VIABLE PRODUCT:** kind of a guess with a startup. Rather than waste time & money, get out and see, then build minimum product to get feedback so you know what to build and in what order.
   * **PIVOT:** What do you do when hypothesis doesn’t match reality??? Change the model! Keep them up with constant speed and tempo – relentless.
3. **Customer Discovery:** 
   1. State hypothesis; draw business model canvas.
   2. Test the problem.
   3. Test the solution.
      1. *Find product-market fit. The holy grail for entrepreneurs*!
   4. Verify OR Pivot – be honest with yourself.
4. **Customer Validation:**
   1. Get ready to sell.
   2. Get out of the building.
   3. Develop positioning.
   4. Verify.

Market Opportunity Analysis – *How big is this opportunity?*

-Identify customer and market need

-Size the Market

-Figure out Competitors

-Growth Potential

*Total Available Market – think of as an entire pie.*

-How many people would want/need product?

-How large is market if they all bought? (in profit, # of product, people, etc)

-How do I find out?

-Industry analysts in your domain.

-Wall Street analysts. (can get free industry analyst reports sometimes)

*Served Available Market – How big is MY slice?*

-How many people need/can use the product?

-How many have the money to buy?

-How big would market be in dollars and units? – Find out by talking to customers and competitors in real world.

-How many will I sell in years 1,2, &3? How many customers is that? How large if they all bought?

*Then determine Target Market (the slice of pie out of the served available market).*

Use JerseySquare to determine Market Size!

**TAM – Tot. Addressable Market** (How big is universe of potential users)

**SAM – Served. Available Market** (How many can I reach with my channel) – define SAM as tightly as possible.

**Target Market** (Who will be most likely buyers)

**Market Size: Summary**1. Talk to customers and sales channels

2. Market size by competitive approximation

3. Market Research Firms (should be heavily validated with cross research)

**Lesson 2 – VALUE PROPOSITION**

Goal: Find **Minimal Viable Product** and **Customer Archetype** (Customer Segment box) to find the **Product Market Fit.**

What product or service are you building?

For who, and what does it solve for those people?

It’s NOT about your idea or product! It’s about the **customer** & his need.

Value Prop works hand in hand with your Customer Segments.

Value Proposition + Customer Segments = PRODUCT MARKET FIT

Pivot and iterate between those two boxes.

3 Components to Value Prop:

1. What do your product features **do**?
2. What **gain (value)** are you creating for customers?
3. What **pain** are you solving for them?

These three come together to make a **minimal viable product (MVP).**

-What features/services should you build first?

-What do your customers think is important?

When planning an initial product, the most important thing is sufficient features to solve a problem for a known group of customers.

Know enough about the needs, gains, pains, jobs that need to be done to the point that you can create a **customer archetype.**

**3 Components to Value Prop, cont:**

1. What do your product features **do??**

1. For company that has a PRODUCT
   1. Which are part of your value proposition?
      1. Manufactured goods, Commodities, Produce…
   2. Which intangible products are part?
      1. Copyrights, Licenses, Patents…
   3. Which financial products?
      1. Financial guarantees, Insurance policies…
   4. Which digital products?
      1. Mp3 files, E-books, Apps…
2. For company that has SERVICES
   1. Which core services are part of your value proposition?
      1. Consulting, a haircut, investment advice…
   2. Which pre-sales or sales services?
      1. Help finding right solution, financing, free delivery…
   3. Which after-sales services?
      1. Free maintenance, disposal…
3. Pain Killers

I. ***Hypotheses***:

a. Produce savings?

b. Fix bad solutions?

c. Eliminate risks?

d. Do customers feel better?

e. Impact social consequences?

f. End challenges?

II. ***Rank*** each pain according to their **intensity** and **frequency.**

3.Gain Creators

I. ***Hypotheses***:

a. Happy customers?

b. Exceed current solutions?

c. Better outcomes?

d. Create positive consequences?

e. Job or life easier?

II. ***Rank*** each gain according to ***relevance*** to each customer. Business isn’t about your opinion at the end of the day. It’s about why customers think it’s relevant.

Keep in mind PROBLEM vs. NEED

Apple turned the iPhone from solving a problem into a need with iPhone.

**Minimum Viable Product**

Product or service you are building in your first instance that is delivered to customers.

Old days: waterfall development process.

MVP is NOT a 1.0 product; we’re doing work outside building first to find what major, minimum features customers want. *Test ability of product to meet minimal customer needs.*

* + - 1. Physical Channels

1. lots of interviews, demos, prototypes. Eye to eye contact.
   * + 1. Web/Mobile
2. Build a low fidelity app, site, or wireframe for customer feedback.
   1. DON’T demo that first!
3. Get customer feedback ASAP.
4. Later build a high fidelity app. This helps you avoid building products nobody wants; saves time.

The Art of the MVP

* 1. NOT a minimal product.
  2. NOT just cutting stuff off the feature list.
  3. It’s a product of iteration and pivoting.
  4. What if customers don’t know what they want?
     1. Still get out of the building
     2. How are they spending their time now?
     3. What solutions are they using?

Common Mistakes

1. Make sure it’s not just a feature of someone else’s product
   1. Don’t want to go out of business because a big company just adds it to their list of features
2. Don’t make it “nice to have” – make it “got to have”
   1. Prioritize pains and gains!!!!

c. Not enough customers care; not a big enough market.

Competition

1. Outside the business canvas.
2. Who else is out there? What are they doing?
3. Why is this problem/service so hard to solve or not being done?
   1. Ask people!!

Product

1. Market size
2. How do you do it?

Technology and Market Insight

1. Technology insight?
   1. Moore’s law, new scientific discoveries, etc.
2. OR Market insight?
   1. Value chain disruption, Deregulation/regulation going to change an industry

Types of Value Propositions

Vinn Diagram.

Overlap of Technical and Market Insight.

Examples in Slides and link at end of Lesson 2.

**Lesson 3 – CUSTOMER SEGMENTS**

Develop an archetype in specific details of who they are: geographically, socially, demographically.

Could have multiple customer segments.

**Jobs to be done:**

What functional or social jobs are getting done?

What emotional jobs?

What basic needs are you helping your customers satisfy?

**RANK each job:**

Rank each job according to its significance to the customer.

Crucial or trivial?

At what frequency does it occur?

Outline the context in which a job is done, that may impose constraints or limitations.

“**Day in the life of a customer”.**

Fill in the day in a life of a customer by getting out of the building and making sure it will work to reach them or deliver your message.

**Customer Gains:**

Benefits customer expects, desires, or is surprised by.

List them!

* + 1. Which savings would make customer happy?
    2. What makes life easy?
    3. Etc.

**Customer Pains:**

List these as well!

1. What do customers find too costly?
2. Main difficulties and challenges?
3. Underperformance or lack of features?

*Ask myself: Is this like #47 on the list of pains, or top 10?*

**CUSTOMER PERSONA/ARCHTYPES:**

PROFILE:  
Position/title

Age/sex

Role

How do they buy?

Discretionary budget

Motivations

*Who influences them? Role Models.*

What buttons do you push?

Age,

Social class,

Income,

Demographic (race),

Religion,

Type of buyer,

Facebook relationship status

**Who’s the Customer? (In context)**

User.

Economic buyer (payer or guy who signs off on it).

Influencer, Recommender, Decision Maker

Saboteurs (who might feel threatened)

**Pass/Fail Signals & Experiments**

Are these the right customers/buyers?

How do you test interest? How, where, why, what, etc.

How many do you test??

Business to business – maybe 20. Web/mobile – hundreds or thousands!

Surveys lie – get some in person data!!

**Multi-Sided Markets**

Each side has own value proposition!

Each has own revenue stream!

**MARKET TYPES**

**There are 4 types of startups. Know. Your. Type.**

**MARKETYPE!**

*Affects Market, Sales, Finance, Customers*

* + - 1. Existing Market
         1. Customers: known.
         2. Competitors: Many.
         3. Customer Needs: Performance (they can tell us)
         4. Risk: Lack of branding, sales, and distribution.
         5. Examples: Google!
         6. Incumbents exists, customers can name the market, customers want/need better performance, usually technology driven, positioning driven by product and value placed on features.
         7. Risks: Incumbents will defend their turf. Network effects. Continuing innovation.
         8. VERY small or nonexistent chasm between visionary and pragmatic market.
      2. Resegmented Market
         1. Customers: Possibly Known.
         2. Competitors: Many if wrong, few if right.
         3. Customer Needs: Better fit.
         4. Risk: Market and product re-definition.
         5. Example: Southwest Airlines; whole foods.
         6. Chasm between visionaries/early adopters and pragmatists is much larger. Sales curve may collapse until mainstream adapts.
      3. New Market
         1. Customers: Unknown.
         2. Competitors: None.
         3. Customer Needs: Transformational Improvement.
         4. Risk: Evangelism and education.
         5. Example: Group-On and their daily deals.
         6. GIANT chasm. You’ll have a small business until you get the masses to adopt – at which point you will skyrocket. This takes longer than expected. May have a valley of death for years first.
         7. PREMATURE SPENDING IS KILLER FOR STARTUPS.
      4. Clone Market
         1. Customers: Possibly known.
         2. Competitors: None.
         3. Customer Needs: Local version for your country or region.
         4. Risk: Misjudging local needs.
         5. Example: Baidu.
         6. Adapts foreign business model and adapts it to local conditions – language, culture, import restrictions, local control/ownership.

Time to Profitability (fastest to slowest):

Existing, clone, resegmented, then new.

Useful homework assignment.

**Lesson 4 – Distribution Channels**

Series of hypotheses about how to get product to customer

Old way: hire agents & marketers

2x2 matrix: Channel and Product (physical, bits/virtual for each)

**Product:**

* virtual
* physical

**Channel:**

* direct
* indirect

Web Distribution Channels:

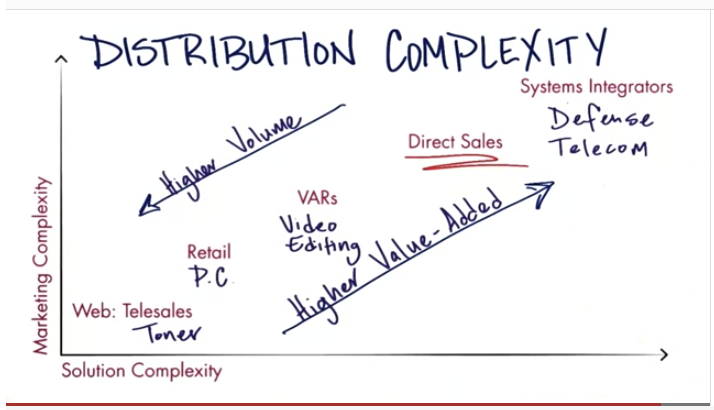
Virtual (can only afford to begin with ONE):

* dedicated e-commerce
* platform (app store, etc)
* 2-step distribution (amazon, walmart, etc. sell your product through theirs)
* aggregator (insurance, shoes, zappos)
* social commerce (facebook, twitter, etc)
* flash sales (groupon, living social, etc)

Physical Distribution Channels:

* OEM (original equipment manufacturer)
* System integrator
* Value added reseller
* Direct sales force
* Web/online
* Dealers
* Retailers

Value-adding channels come with a cost: volume.



Channel Economics:

Direct Sales:

* Consider List Price (best to watch slides)
  + Cost of goods
  + R&D
  + Selling Costs
  + General Administration

Resellers:

* Consider List Price
  + Cost of goods
  + R&D
  + Lower Selling Costs
  + General Admin

OEM

Dslfjklsfjds;fjsal;dj

**Lesson 5 – Customer Relationships**

Get, Keep, and Grow (double barreled funnel)

What’s their role?

Who are they?

How do they buy?

What matters?

Most companies are selling to multiple archetypes – 2,3,4-ish.

Put your archetype on the wall – keep him in mind! Even name it. Sally, Dave, etc. Just *know* who the people you’re trying to acquire are.

**Two ways to create demand (Feed the Funnel):**

* + - * 1. **Paid demand creation activities:**

Public Relations

Advertising

Trade Shows

Webinars

Email/Direct Mail

Search-engine marketing (google ad words, etc)

* + - * 1. **Earned demand creation activities (free):**

Publications

Conferences/Speeches

Blogging/Guest Articles

Social Media

Note: If you reach 100 people/day and pull in 10%, think about how many customers you have after 2 days, a week, etc. (20, 70, etc…)

**PHYSICAL CHANNEL**

**Getting customers for a physical channel (from their perspective):**

1. Awareness
   1. Generated from Earned and Paid Media
2. Interest
3. Consideration
4. Purchase

These loops may be modified for my own personal experience and startup.

**Viral Loop:**

Ex: Someone bought one of your products & couldn’t wait to tell their friends. It has a magnifying/viral effect of selling your product based on users loving it.

We can engineer this loop using rebates, incentives, turning customers into sales people, etc.

***Smart startups think about this loop all the time.***

**Keeping Customers:**

Ex: Loyalty programs, points, awards. Make them not want to leave because they’ll lose their rewards. Also, Product updates or customer satisfaction.

**Grow Customers:**

1. Un-bundling
   1. Don’t put all perks in one product for one price
   2. Decompose the product into separate pieces, charging for each piece (& charging more).
2. Up-Sell
   1. Ex: labeling products “good, better, best”. Get customers dreaming about the better and the best.
3. Cross-Sell
   1. Companion products
   2. “people who liked this also bought this other thing”
4. Referrals
   1. Generate **another viral loop**
   2. This outer loop may be thanking customers for their purchases, or giving discounts if they bring more customers, etc.

**WEB/MOBILE CHANNEL**

**Getting customers for a web/mobile channel (from their perspective):**

1. Awareness
   1. Generated from Earned and Paid Media
2. Activate
   1. Want them to engage – sign up, pay, etc.
   2. *Customer Acquisition Cost (CAC) – Do the math! What’s it cost for you to get 1 paying customer?*

**Keep Customers:**

Loyalty Programs

Contests/Events

Blogs/RSS/Email

Social Media

- Main worry is **Churn** (or Customer Attrition)

**Grow Customers:**

Consider *Lifetime Value (LTV)*, Can you get them to spend more and more over time, and reduce churn?

**LTV > CAC (Maybe 3>1?)**

Outline HOW you will get, keep, and grow in the business model canvas.

**Lesson 6 – Revenue Model**