Caption Project

Airbnb Booking Analysis

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Sience 2008, guests and hosts have used Airbnb to expend on travelling possibilites and present a more uniqe, persinalised way of experiencing the world. today Airbnb became one of a kind sevice that is used and recognized by the whole world. Data analysis on millions of listings generate a lot of data - data that can be analysed and used for security, business decisions, understanding of customers and providers(hosts) behaviour and performance on the platform, guiding marketing intiaitves, implementation of innovation additional services and much more.

The Airbnb Pitch Deck slide structure

1. Market Validation
2. Market Size
3. Product
4. Business Model Competition
5. Competitive Advantages
6. Team
7. Press
8. Financial
9. Problem

1. Market Validation

Not every pitch deck needs this slide. We made this chart a few months ago showing the 'required' slides on a deck. However, market validation is essential here to demonstrate how people are looking to move away from the hotel model. Craigslist is a classifieds site, not optimized for travelers or experiences (with that UI, it's not optimized for anything). However, it still shows how many people are looking to rent out their spaces. Similarly, over half a million Couchsurfers demonstrate, once again, the problem statement: people are looking for cheaper travel options and are willing to sleep on a shared space. Airbnb offered a new concept, but CouchSurfing provided the validation it needed, which is the reason this slide was critical.

2. Market Size

This is not my favorite slide here. What the founders were trying to demonstrate is how many trips they could potentially reach if they owned 20% of the Budget/Online travel market. 20% of the Total Addressable Market is a bold statement, most definitely. However, with 2MM+ guests sleeping on an Airbnb location every night- we can safely say they've beat that metric.

When I write pitch decks, I tend to avoid lines like 'if we could only get 1% of this market'. I would much rather show a more in-depth study of the market opportunity, focusing on the industry data of similar companies.

Product

3. Product

Not much to add here. Showcase your product. If you don't have product screenshots to show, you are probably not ready to be pitching investors.

Once again, this slide assumes a bold and ambitious piece of the travel market. I think that the most significant value on this slide is, once again, simplicity:

We take a 10% commission on each transaction. That's simple and straightforward, and it provides a number that can be used to estimate business dimensions.

Notice how they are using an average fee per night, as well as actual data on their average room price. These are not made up numbers: Airbnb had an operational MVP when this pitch deck was created.

5. Competitive Advantages

I believe the highlights here are:

1 1st to market.

2 Host incentive.

Airbnb was the first site of its kind. One of those game-changing ideas that were, of course, combined with fantastic execution.

The host incentive, as well as real ease of use,   were also incredibly valuable. The motivation for extra revenue from unused home space is hard to beat, and non-tech people could easily list their homes and filter guests. Airbnb's system and insurance also protected both the guest and the host from scams, which are quite common on Craigslist.

Not a lot to add on the team slide. Make sure you only talk about core team members (people who will be 100% dedicated to the company). Advisors are useless here unless they are incredibly relevant in the space.

Also, the team shown on the slides needs to have the capacity to bring the business to its next fundable point. With the $500,000 Airbnb was planning on raising, they probably wouldn't be able to afford any industry leaders or extremely skilled employees. These guys were going to be the upper-level management for the next months to come.

Press and user testimonials are helpful. I usually like to merge these two into a single slide, perhaps even combining it with TRACTION, meaning revenue

8. Financial

Simple and to the point, and most importantly, with a clear goal: reaching 80,000 transactions. The only detail I would add here is the use of funds: a rough estimate of where the round is going.

In this case, considering the product MVP was already developed, we could assume that the round would go to growth (validating the business); but we'd need Brian to answer that question.

9. Problem

This is one of my favorite problems slides ever: 3 clear, direct, and indisputable statements. Writing a problem slide is a common challenge; founders who are familiar with the status quo tend to overcrowd this slide excess industry details. Remember, the investor seeing your deck might not be familiar with the inner workings of a specific market niche. Travel is by no means a niche- so the purpose here was simply to establish the reality of travel and three key points that the Airbnb was looking to tackle and solve. This slide is also, the first slide. You don't want to start the pitch deck with a statement that will make investors question your actual industry expertise. Remember, use undebatable statements. The Problems stated on this slide need to be tackled on the next slide, the SOLUTION. I usually like to show the product on this slide, but these guys opted to move the product showcase later in the deck. Instead, they focused on answering the problems with three statements. Once again, notice how simple the headline is: A web platform where users can rent their space to host travelers. So. Simple. No complicated tech jargon. Explaining what your product does in 10 words or less in such simple words is by no means an easy task. Be prepared to iterate time and time again over this slogan- you'll know when you find it. When your grandma asks you what you do, you can answer in a single sentence, and she can grasp it- you'll be there. Elevator pitch Nirvana.

Problem Statement

I completed this short technical exercise as part of a job application. I was given the data set 'AB_NYC_2019.csv' and asked to conduct exploratory data analysis and produce a 10 minute presentation of my findings. I was required to demonstrate:

- a general understanding of what the data is, including an assessment of its quality

- some analysis I have carried out to show findings of interest in the data

- suggestions for data science techniques I would apply if I had more time

File ➡ This depository contains the raw data set as a csv file, the Jupyter notebook I used to conduct analysis (I mainly used Pandas and Matplotlib), the presentation slides in pdf format, and a folder of graphics that I used in the presentation slides

- <u>id</u>: Unique identification code for the listing

- <u>name</u>: Descriptive name of the listing

- <u>host_id</u>: Unique identification code for the host

- <u>host_name</u>: First name of the host

- <u>neighbourhood_group</u>: Neighbourhoods are grouped into NYC boroughs

- <u>neighbourhood</u>: The name of neighbourhood of the listing

- <u>latitude</u>: A numeric variable that combining the longitude to represent the location of the listing

- <u>longtitude</u>: A numeric variable that combining the latitude to represent the location of the listing

- <u>room_type</u>: A categorical variable including Shared Room, Private Room or Entire Room/Apt

- <u>price</u>: The price of the listing

- minimum_nights: The minimum number of nights the host requires to book their property
- number_of_reviews: Number of customer reviews regarding the listing
- last_review: Date of the last review
- reviews_per_month: Number of customer reviews per month
- calculated_host_listings_count: Number of listings each host has simultaneously
- availability_365:   The number of days that the listing is available in a 365 days, which is pre-defined by the hos

A cursory internet search showed that the data comes from Inside Airbnb (http://insideairbnb.com/) - an activist project that provides data and analysis about Airbnb. It consists of publicly available data that was compiled from Airbnb.com, cleaned, and processed on 6 Aug 2019. This means that the data is clean and consistent (e.g. hosts have unique host_id and neighbourhoods are consistently labelled and match with city definitions), but it is limited in scope. That is, it is limited to the publicly available information on the Airbnb website. So we lack, for example, a detailed rental history for each listing.

My Analysis

At first I spent some time just exploring the data and getting a feel for its scope and limitations. I became interested in the question of how hosts were using Airbnb: casually - the way it was 'intended' to be used - or more like a full time business. I identified availability_365 and minimum_nights as good indicators for this and so conducted short analyses of these variables on their own before examining their covariance. Since this was only intended to be an exploratory analysis I concentrated on getting a feel for the data through graphics and didn't apply any rigourous data science/statistical techniques