# Dropbox is a late mover in a crowded space. What opportunity did Houston see? Specifically, what are the key elements of Dropbox’s current business model?

*Hint: Be specific in your answer to question #1. Does viewpoint matter? That is, would customers, networks, advertisers, etc. answer this question differently?*

The opportunity that Dropbox’s founder, Drew Houston, saw was a need that had been establish for a while now, a need that people would pay to be fulfilled, and more importantly a need that didn’t have the correct solution. Houston noticed that the backup and storage service space was more jammed with companies than cars on the roads of L.A. during rush hour. More importantly he noticed that, even with all the competition, none were designed head to toe with the individual user in mind. He decided to fulfill that niche by providing a software that would allow multi-platform for storing of files, it would be able to handle any size and any amount of files it was backing up to the cloud, but most importantly it would be simple. The simplicity and practicality was Houston’s way of hopefully breaking through and reaching all the common people out there that were in need of an easy intuitive way to back up files. Houston saw that the common person would eventual bring his software into the companies that these common people work at. This in hand would lead to IT certification, leading to massive penetration of the market, and Houston saw the promising values behind this

At the time of the case I feel that TiVo was indeed a good idea, and would’ve seen it as a profitable, strong, future company. I believe this for a number of reasons including their target market, their ability to provide information that no one else could at the time, their partnerships that they made, as well as their ability to bring revolutionary ideas to a product deeply ingrained in the everyday life of most Americans.

TiVo knew that the average household owned 2.4 TV sets,0 and that 20 Million households had been enticed into paying large dollars for top of the line surround sound entertainment systems. This information helps to confirm that TiVo definitely had a market it could reach out to that would be very interested in this particular product, and a growing market at that. DVD players were just beginning to be sold a few years prior to TiVo’s first units being built and DVD player distributors sold 4 Million units in 1999, this was a 400% increase in units sold from the year prior.3 While the DVD market doesn’t directly correlate to TiVo, it represented the number of families that felt inclined enough to consume home entertainment products, was growing, meaning that the potential market for future TiVo owners optimistically, was also expanding. More than just having the market and the consumers of that market, willing to buy TiVo units, it actually appeared to possibly hit a price point that consumers would be able to purchase at. Evaluating the price of the low line model and package deal that TiVo offered, as well as their top tier model wrapped with the lifetime subscription, and comparing it to the mean household annual income from 1999,3 we can see that a TiVo unit ranges from 1.5-3.6% of ones annual income, this is basically a weeks worth of pay. All TiVo had to do was convince their well-established market that a unit was worth a weeks labor and the company would be well off.

Besides their already sound and nicely expanding market size, TiVo had valuable information that was invaluable to advertisers and networks that no one else at the time could offer to the exact degree. With its collection of consumer data TiVo held the skeleton key that unlocked access to some of the most detailed accounts of consumer activity and interests relating to the TV experience. Owning such information allowed TiVo the capability to offer this information to advertisers so they could better reach their actual target audience with a refined approach. No longer did they have to rely on the spray and pray approach, where advertisers have some idea of their audience, a rough sketch at best, and proceed to flood them with as many ads as possible hoping some actual targets are impacted in the process. When looking at data TiVo acquired, 90% of commercials were bypassed by fast-forwarding,0  you see that astonishingly 10% of commercials were still viewed even though the user possessed the ability to skip over it. This shows that 10% of commercials were hitting their intended targets and enticed them enough to watch the advertisement. If advertisers could have the information that shined light on what kind of people this 10% consisted of, more and more advertising could be properly allocated towards a more appropriate demographic. This then leads to mutual benefits for the parties involved, consumers being better off having commercials that they are more interested in, and advertisers pushing sales higher.

                 Although this would make advertisers more accepting of TiVo, Networks would benefit in another way. The season pass allows for networks to be able to promote shows accordingly based off of the fan base, allowing for them to manage ad space more efficiently and even charge a premium. This along with the other features TiVo offered could be used by Networks to improve different aspects of their current operations.

The biggest challenges facing the product launch in 1999 had to have been the price of the actual unit, the actual marketing of the product, and TiVo’s public awareness.

                 Although TiVo was affordable to its target-market,4 this did not necessarily convert directly to people willing to purchase a TiVo. Without a good reference point for pricing, and having a new technology tackling a problem people didn’t know they previously had, TiVo would have to truly succeed at defining the problem that people couldn’t see initially. Crucial to success would be their ability to converse the solution to this problem with absolute transparency and understanding, to the consumer, before a substantial percent of the market could be penetrated. Recognizing this, TiVo representatives trained sales personnel for lengthy amounts of time in order to engrain all of the innovative features that TiVo provided its users. With the lengthy amount of training required being paired with a 50% turnover rate for electronics sales personnel, differentiation about how to pitch the product to customers rose. This ultimately increased consumer confusion as to what exactly TiVo was. Another troubling realization was that the first consumers who did purchase the unit, still didn’t have a clear cut, ‘nutshell’ concept of what exactly TiVo was, and could not carry out what most industries rely on early adopters to provide, the ability to entice others to join the bandwagon. Publicity for the product was for the most part positive but also created customer confusion because of inability to have solidarity around how the product was described and what it was described as (exempli gratia “DVR”, “PVR”, “IVR”, on-demand TV).

                 These issues would have to be cleared up before a major market penetration was to be seen, thus these would be some of the bigger challenges that TiVo faced in 1999.

# 2. When he applied to Y Combinator (see Exhibit 2), what hypotheses did Houston hold about key elements of Dropbox’s business model? As of June 2010, which of these hypotheses have been confirmed, and which have been discarded?

At the time of the case it seems as though TiVo is competing in the video recording industry, as it starts to define a new industry of digital video recording. This specific industry classification is supported by the amount of market dilution TiVo encountered on behalf of the VCR and DVD industries of the time.

-Porter’s Five-Forces Analysis-

1.Bargaining Power of Consumers: Relatively low, based on the fact that switching fees to the consumer are high and substitute products are low, also the strength of the distribution chain is secure.

2. Threat of New Entrants: Relatively moderate, numerous technological advances protected by patents made it harder for others to mimic features of TiVo in the same manner. Access to distribution was harder for others as TiVo had locked down both Philips and Sony. Barriers of entry were slightly above average as it took the technological know-how to program the actual operating unit.

3.Threat of Substitute Products: Relatively moderate, based on the fact that Price Performance of the substitute is lower than TiVo’s price; product differentiation is moderate because of patents and business models; TiVo was around first and had a head start so hopefully a substandard taste towards the competition exists.

4.Bargaining Power of Suppliers: Relatively low, based on the fact that there are substitute products that must be competed with, the industry has the potential to be one of the suppliers largest markets, and a low impact of input on differentiation and cost.

5.Competitive Rivalry Within an Industry: Relatively moderate, based on the fact that degree of transparency is high, level of advertising expense was low, and the sustainable innovation for competitiveness was moderate.

After analyzing this Porters Five Forces outline, if I found myself in a position to invest in TiVo back in 2000 I most certainly would have taken the opportunity to do so. With the ability to be able to define your industry and having relatively low consumer bargaining power, this meant that the possibility of returning a profit was very high. Having Sony and Philips already backing the company on the supply side made the barrier of entry rise, as well as created a sense of trust in consumers by presenting them with a familiar brand associated with TiVo. Simply because competition was growing didn’t mean that TiVo wouldn’t become a smart investment, because as this was a new industry the size of the true market was still being identified and had the potential of being quite large allowing for many of the companies targeting the market to profit not just one company.

# 3. Imagine that at the same time Dropbox was founded, Google decided to target the opportunity that Houston had identified. How would Google’s approach to pursuing “G-Drive” have differed from the approach that Dropbox’s team followed?

*Hint: Time of the case is May 2000.*

Roughly 281 Million people made up the total population of America in the year 2000,6 and according to census.gov the actual acceptable number of individuals that made up a household in 2000 was 2.59 individuals. Taking 281M people and dividing by 2.59 individuals per household we arrive at 108,494,208 households present in America during the year 2000. With this number we can go ahead and divide it in half as DVR’s at the time were an expensive commodity, thus defining the market to be made up of more financially stable families. Knowing that the median annual income for 1999 was $33,332, accounting for slight error in data collection, and adjusting for laggards, we can concur that at least 45,000,000 households had the potential of becoming consumers. These 45,000,000 households had an average number of 2.4 TV sets each, 0 leading to a total of 108 Million TV sets in a position of finding a DVR atop them.

# References

*Note: Any commonly used reference format for technical writing is acceptable. If need be, the reference section can be on page 4.*

0.     Luc Wathieu and Michael Zoglio, “TiVo”, HBS No. 9-501-038 (Boston: Harvard Business School Publishing, 2000).

1.     Department of Health and Human Services, U.S. Government Survey of Ice Cream Eating Habits, November 1999.

2.     <http://data.worldbank.org/indicator/NY.GDP.PCAP.CD?page=2>, GDP per capita (The World Bank, Data for the year of 1999.)

3.     DVD Demystified, <http://www.dvddemystified.com/dvdfaq.html#1.9>, 1999

4.     Consisted of slightly above average income households that had expenditures consisting of home entertainment systems or other advanced TV viewing enhancers

5.     <http://www.google.com/search?tbo=p&tbm=pts&hl=en&q=inassignee:%22TiVo+Inc.%22#hl=en&q=inassignee%3A%22TiVo+Inc.%22+1999&tbm=pts>, Various TiVo Patents filed before 2000

6. <http://search.worldbank.org/data?qterm=united%20states%20population&language=EN>, Population number for the United States for the year 2000