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GROWTH HACKING

A NEW MARKETING MINDSET

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Introduction

The world is increasingly going faster. The scientific progress is continuously redefining the everyday life. Globalization, information and communication technologies and the economic development of many emerging countries offer a far wider and wilder market than in the past.

The overall world production capacity and competition is rising year after year.

This changing landscape exacerbates the shortcomings of traditional marketing and management.

The rise in the numbers of players intensifies the pressure on the single company for effectiveness and efficiency.

The fast pace of innovation brings a higher degree of uncertainty.

Companies need to do more with less while facing major risks.

Growth hacking is a new mindset that aims to satisfy this need. Expanded by the Lean Startup framework, it is surging as a novel model to manage an entire organization throughout its evolution.

Traditional marketing is different in several ways.

Growth hacking enlarges the scope of marketing to overall management. Whether marketing is getting customers, applying the transitive property, anything that gets customers is marketing.

However, the Growth Hacking movement is still young and its ideas are in strong need for clarification.

Thus, the aim of this study is twofold.

Firstly, it carefully defines the Growth Hacking elements and its divergence from traditional marketing.

Once the framework is set, this research wants to demonstrate how growth hacking can better suit startups, organizations which particularly suffer of the traditional marketing flaws.

To reach this objective, each reported empirical case is linked to a concept and each concept is analyzed relying on many sources: books, papers, blogs, articles, essays and interviews. The focus is on tracking the common themes that represent the backbone of the growth hacking framework.

Thus, the first chapter will provide an explanation of the growth hacking mindset and its main differences with traditional marketing.

The second chapter will analyze the factors behind the Growth Hacking rise. Through this investigation, it deepens the comprehension of the Growth Hacking advantages and disadvantages in comparison to the old mindset.

The third chapter theoretically applies the Growth Hacking concepts, as refined by the Lean Startup model, to a new startup throughout its development.

Lastly, the fourth chapter will show an empirical application of most of these ideas to a specific company: Dropbox.

Chapter I

Grow Hacking as a new marketing mindset

1.1 Growth hacker definition

Though the expression “growth hacker” is increasingly spreading worldwide and it is, so far, a common word in the Silicon Valley and the overall USA startup environment, its roots are quite recent. Sean Ellis, CEO of Qualaroo and former growth hacker at Dropbox, Lookout, Eventbrite and others, is the first one to adopt this new term. In 2010, he defined a growth hacker as “a person whose true north is growth. Everything they [grow hackers] do is scrutinized by its potential impact on scalable growth”¹;

However, we can track back the real booster in an Andrew Chen article, *Growth Hacker is the new VP Marketing* (2012), identifying a growth hacker as “a hybrid of marketer and coder, one who looks at the traditional question of “How do I get customers for my product?” and answers with A/B tests, landing pages, viral factor, email deliverability, and Open Graph”².

On this point, Ryan Holiday (2014), while confirming that “a growth hacker is someone who has thrown out the playbook of traditional marketing and replaced it with only what is testable, trackable and scalable”³ states that “growth hackers often have a programming background, but it’s not required”⁴.

¹ Ellis, S. (2010, July 26). *Find a Growth Hacker for Your Startup*. Retrieved from Startup Marketing: <http://www.startup-marketing.com/where-are-all-the-growth-hackers/>.

² Chen, A. (2012, April 27). *Growth Hacker Is the New VP Marketing*. Retrieved from @andrechen: <http://andrewchen.co/how-to-be-a-growth-hacker-an-airbnb-craigslist-case-study/>.

³ Holiday, R. (2014). *Introduction to Growth Hacker Marketing*. Croydon: CPI Group (UK) Ltd, p. XXV.

Thus, the “common characteristic seems to be an ability to take responsibility for growth and an entrepreneurial drive”⁵ rather than the presence of a technical coding experience because “the end goal of every growth hacker is to build a *self-perpetuating marketing machine* that reaches millions by itself”⁶.

Growth hackers can apply a wide set of strategies to reach this aim.

Uber, the famous American mobile ride request company, sponsored tech events in San Francisco. Accordingly, it could target the tech community members as early adopters and gain a huge publicity through blogs, websites, social media and every other online platform they use to write on⁷.

PayPal made a deal with eBay, the leading auction site for online sellers to consumer sales. Its logo was published on the listings among the other preferred form of payments. Therefore, it could leverage on the large eBay community and spread among both buyers and sellers⁸.

Gmail, the email service provided by Google, had an invitation-only beta release, “this gave an air of exclusivity to the product and people were in fact asking for invites to others”⁹.

The list of growth hacking tactics is long but the most famous is surely that one applied by Hotmail, one of the first providers of free email, in 1996. Just through putting the tagline “Get your free email at HoTMaiL.” at the end of each message sent

⁴ Holiday, R. (2014). *Growth Hacker Marketing*. Cit. P.82.

⁵ Ellis, S. (2010, July 26). *Find a Growth Hacker for Your Startup*. Cit.

⁶ Gin, A. (n.d.). *What is a growth hacker?* Retrieved from Aginnt.com: <http://www.aginnt.com/growth-hacker/#.Vqj1MyorKUU>.

⁷ Brown, M. (2013). *Uber — What's Fueling Uber's Growth Engine?* Retrieved from GrowthHackers: <https://growthhackers.com/growth-studies/uber>.

⁸ *The Top Three Examples of Internet Growth Hacking*. (2013, May 10). Retrieved from Mixrank Blog: <http://blog.mixrank.com/the-top-three-examples-of-internet-growth-hacking/>.

⁹ Oppong, T. (2014, June 30). *13 of The Most Ingenious (and Successful) Growth Hacking Strategies...Ever*. Retrieved from Alltopstartups: <http://alltopstartups.com/2014/06/30/ingenious-growth-hacking-strategies/>.

by a Hotmail account, the user base increased to millions within few months¹⁰. The system was soon copied by other companies as Apple and BlackBerry.

However, as stated by Aaron Ginn, “growth hacking is a process, not a secret book of ideas. Growth strategies cannot be easily copied and pasted from product to product. Growth is never instantaneous. It is never overnight. It is a mindset at which you approach problems”¹¹.

Growth hacking is a new way to conceive marketing and the business strategy. Marketing has been traditionally viewed as “the action or business of promoting and selling products or services, including market research and advertising”¹². Nevertheless, the technological evolution and the changing economic landscape have put this definition under pressure. Growth hacking has combined the classic product development and marketing functions in a unified field where the focus is the user and viral diffusion. Everything is now interconnected to reach exponential growth. The product is modified and tweaked many times until it can fully satisfy the customer throughout all its life cycle. In fact, the virality must be firstly embedded in the product. Once the product is ready for the market, it is fully kick-start to the mainstream market using publicity stunts or other techniques. This evolution in the traditional marketing idea is further noted by the American Marketing Association that has recently broadened the definition of Marketing as “the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large”¹³.

¹⁰ Penenberg, A. L. (2009, October 18). Viral Loop: From Facebook to Twitter, How Today's Smartest Businesses Grow Themselves. New York: Hyperion. Retrieved from TechCrunch: <http://techcrunch.com/2009/10/18/ps-i-love-you-get-your-free-email-at-hotmail/>.

¹¹ Ginn, A. (n.d.). *What is a growth hacker?* Retrieved from Aginnt.com: <http://www.aginnt.com/growth-hacker/#.Vqj1MyorKUU>.

¹² *Marketing*. (2016). Retrieved from Oxford Dictionaries: <http://www.oxforddictionaries.com/definition/english/marketing>.

¹³ American Marketing Association. (2013, July). *Definition of Marketing*. Retrieved from Ama.org: <https://www.ama.org/AboutAMA/Pages/Definition-of-Marketing.aspx>.

A growth hacker does not need to be either a marketer or a coder, even if a basic knowledge of coding is required to be fully in sync with the development team. According to Ginn (2012)¹⁴ all growth hackers share three main attributes: data driven, creativity and curiosity.

Growth hackers use data to both strategize and analyze the results of foregoing experiments. While a traditional marketer usually designs a large campaign but cannot really understand its outcome, the ROI of the overall advertisement effort, growth hacker plans rely on technology and instruments that allow for the traceability of the results. All the decisions are data driven.

On the other hand, a growth hacker must be a creative problem solver. He needs the capacity to think outside the box. Creativity is needed to view the pattern behind the data and the best way to solve the related issues.

Finally, a growth hacker has to ask himself why the current users are users and why the prospectors are not converting, why a product is quickly growing and why another is failing. He questions himself about the user experience and the conversion rate. He is curious of what is hidden behind the surface.

Then, even if the “growth hacker” term is just dated back to 2010, the character and the mindset it denotes has been already present in the startup biology from decades.

Furthermore, being an approach, rather than a set of technological tools, growth hacking can be applied to every kind of product or service. Marketing is no longer something that starts once a product is finished. Marketing can be built inside every product. Once, the product or service is fully developed to compel customers, the tools of internet and social media make it possible to track, test, iterate, and improve the advertising.

The strategies and the practical techniques change constantly.

1.2. Differences with traditional marketing

¹⁴ Ginn, A. (2012, September 2). *Defining A Growth Hacker: Three Common Characteristics*. Retrieved from TechCrunch : <http://techcrunch.com/2012/09/02/defining-a-growth-hacker-three-common-characteristics/>.

Growth hacking cannot be viewed as an evolution of traditional marketing. A marketer usually approaches the product from a totally different perspective.

Firstly, as already mentioned, growth hacking and marketing affect the business at different phases. In the famous *Competitive Advantage: Creating and Sustaining Superior Performance*, Michael Porter depicts the *Marketing and Sales* activity as following the overall production – consisting of *Inbound Logistics*, *Production* and *Outbound Logistics*¹⁵.

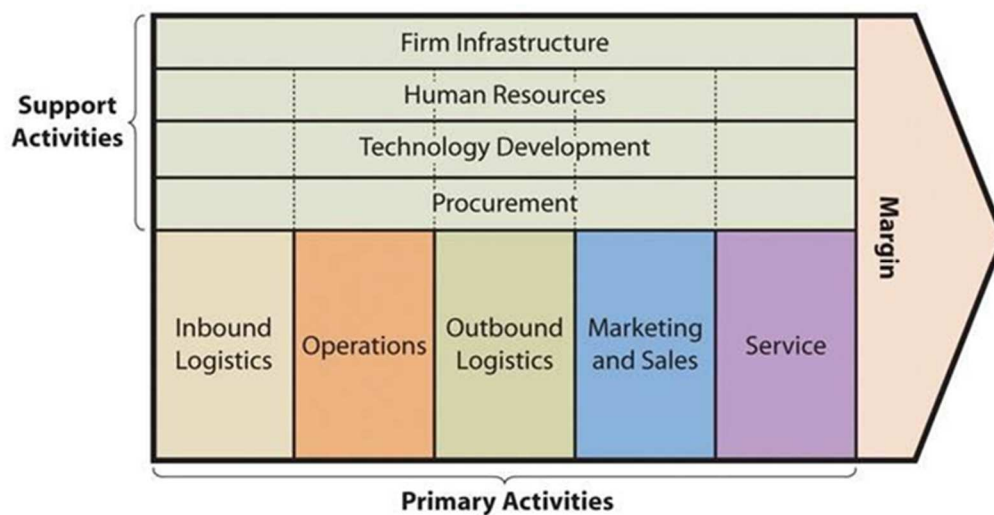


Figure 1: Michael Porter's Value Chain.

Source: <https://sites.google.com/site/dylanjbos7/home/chapter-3>

Traditionally, marketing has been viewed as the activity of promoting and selling an already made product. Once the product or the service is arranged, the marketer plans campaigns to attract clients and to make the prospect customers wanting it. The aim is to persuade people to like the product, and subsequently buy it.

Growth hacking changes this approach. Marketing does not start with the already developed product but in the developing phase. Growth hackers analyze the market, try to discover the customer/user preferences, search for reliable data and, only then, the product is built. Furthermore, it is an iterative process. Whether the initial

¹⁵ Porter, M. E. (1985). *Competitive Advantage: Creating and Sustaining Superior Performance*. New York: Simon and Schuster.

product does not perform as expected and the metrics through which the growth hacker planned to assess the results are not delivering the expected outcome, it is changed. The product can be tweaked and tweaked again until it reaches the so called product/market fit¹⁶. The aim is to build a product that people like.

Additionally, growth hacking also affects the Service activity - which includes all the processes required to make the product work effectively after it is sold. The customer care and the collection of the customer complaints and feedback are important inputs into the process of product improvement. The growth hacker curiosity characteristic treated above is mostly concerned with discovering what the user thinks about the product and why she/he acts in a specific way. Of course, the application updates so as the maintenance and warranty of a physical product can be included in this process of information gathering and customers' management.

Another important element of divergence between growth hacking and the traditional marketing is the kind of initial product. Firms used to sell products that were finished, ideally perfect. The idea behind many first releases is to distribute merchandise with high quality standards that can spread in the market and beat the competition. Growth hackers usually start with a minimum viable product (MVP).

The MVP concept was coined by Frank Robinson, CEO of SyncDev, in 2001¹⁷. A minimum viable product is “a unique product that maximizes return on risk for both the vendor and the customer”¹⁸.

A developing team can incur two equally wrong designs of product: on one side, a product without required features which fails to attract customers, on the other, an overdesigned product that increases the risk for both vendor and customer. For instance, an initial product with many components implies higher cost of development, higher quality assurance cost and more design time for the vendor and increases the adoption

¹⁶ Marc Andreessen defines the product/market fit as “being in a good market with a product that can satisfy that market”: see Andreessen, M. (2007, June 25). *Product/Market Fit*. Retrieved from Web.stanford.edu: <http://web.stanford.edu/class/ee204/ProductMarketFit.html>

¹⁷ SyncDev. (n.d.). *A Proven Methodology to Maximize Return on Risk*. Retrieved from Syncdev.com: <http://www.syncdev.com/minimum-viable-product/>.

¹⁸ *Ibidem*.

time and training for the customer. All these expenses are associated with the risk that the product fails to satisfy the customer at all. The overall development phase is based on hypotheses about the target market and the customer preferences. These assumptions may prove to be false.

The MVP is “a difficult-to-determine sweet spot”¹⁹ between these two opposite

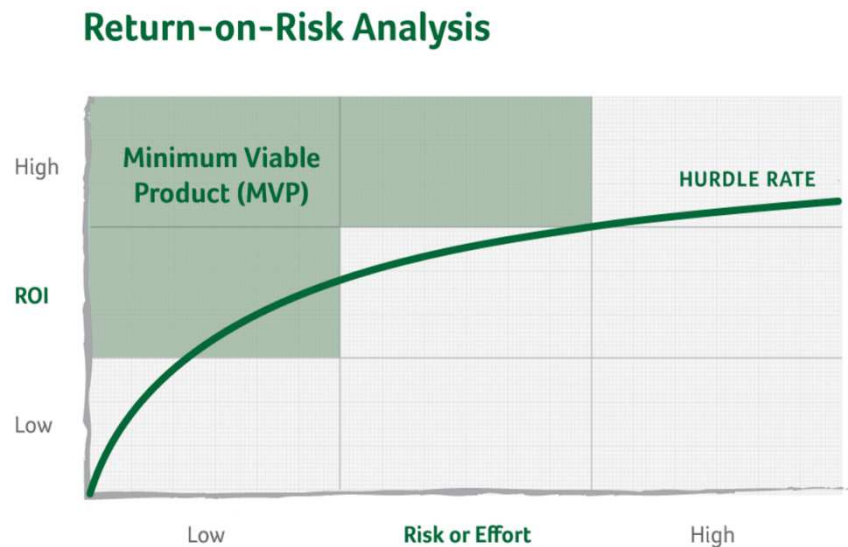


Figure 2: Return-on-Risk Analysis.

Source: <http://www.syncdev.com/minimum-viable-product/>

designs. It can be viewed as an application of the Sharpe Ratio²⁰ idea to the business strategy.

The MVP maximizes the return-on-risk of the overall business by acting on both the dividend and the divisor. It increases the return because it avoids costly extra features. Furthermore, the risk is reduced because the firm faces fewer fix expenses and the overall reduction of the product’s costs leads to a cheaper validation of the initial assumptions. Once the fundamental hypothesis about the target market is proved correct, the product can be improved according to the clients’ reactions. Consequently, the waste of money due to a failure of the original expectations is minimized.

¹⁹ *Ibidem*.

²⁰ The Sharpe Ratio is a measure of risk-adjusted return developed by the Nobel laureate William F. Sharpe. It is the average return earned in *excess* of the risk-free rate per unit of volatility or total risk. See: *Investopedia*. (n.d.). Retrieved from Sharpe Ratio: <http://www.investopedia.com/terms/s/sharperatio.asp>.

By this way, the growth hacker can collect valuable information on the customer tastes and feedbacks to employ for further refinements of the service or product. Thus, the MVP became just one point of an overall iterative procedure to learn and reduce the ambiguity. This system is known as Lean Startup and will be discussed later in this work²¹.

The idea of an incomplete perfectible product or service strikes with the marketing mentality. Nevertheless, it is more suitable to a context of extreme uncertainty.

Even after this whole process of product improvement, growth hacking still has remarkable dissimilarities with traditional marketing.

While old school marketing relies on instruments as television, radio and magazine advertisements, billboards or even email spam, growth hacking avoids these means or uses them in different and low cost ways.

The traditional channels suffer of two main shortcomings:

1. they often have high cost per acquisition of new clients and a low life-time value due to high saturation²² which makes them basically expensive;
2. they are not trackable.

In particular, the second point implies that traditional marketers cannot actually measure the ROI of their investments. In fact, even if the expenditure of a billboard

$$ROI = \frac{(\text{Investment Gain} - \text{Investment Cost})}{(\text{Investment Cost})} \times 100$$

campaign or of television ads – the “Investment Cost” part – is easily measurable, the related results – the “Investment Gain” part – are far more complicated to quantify. These traditional means are affected by the loss of information due to aggregate data. The new sales may be explained by seasonal factors, the word-of-mouth as much as by the marketing investments. Historically, this has reduced the marketing decisions to gut instinct and the overall function to gambling.

²¹ See p. 67.

²² Holiday, R. (2014). *Growth Hacker Marketing*. Cit.

Growth hacking relies on a series of web instruments, as Google Analytics, KiSSmetrics and SiteMeter, that make it possible to track the data to understand the “Investment Gain” part of the ROI formula. In this way, it is easy to investigate not only how much it is paid in a kind of online advertisement but also how many new customers are acquired and the return per person. The uncertainty is reduced and managed better²³. It is possible to recognise which investments are underperforming and cut them.

The online tools also facilitate scalability. While the classic marketers usually want to have a big launch with a massive advertisement campaign and are willing to spend millions on it, growth hackers prefer to experiment on low/local level and scale the investment if it has proven successful. They apply the scientific approach to assess the worthiness of a marketing decision. This can avoid the failure and the major waste of money of a campaign based on deceptive assumptions.

These instruments are coupled with a strategy that targets free advertisement. For instance, the Hotmail tagline “Get your free email at HoTMaiL”²⁴ allowed to convert each email sent from a Hotmail account in a free ad. The more the user base grew, the more Hotmail gained free sponsors.

Traditional channels are used in a different way. Rather than paying for an advertisement in a newspaper or on television, the growth hackers try to make the media talk about their products using publicity stunts. The Canadian firm ApTiquant may be considered a master in this field. It spread a study proving that people using Internet Explorer have a lower IQ than those who do not use the browser. The study was soon proven to be false but only after various media reported about it and the company was able to gain widespread free press²⁵.

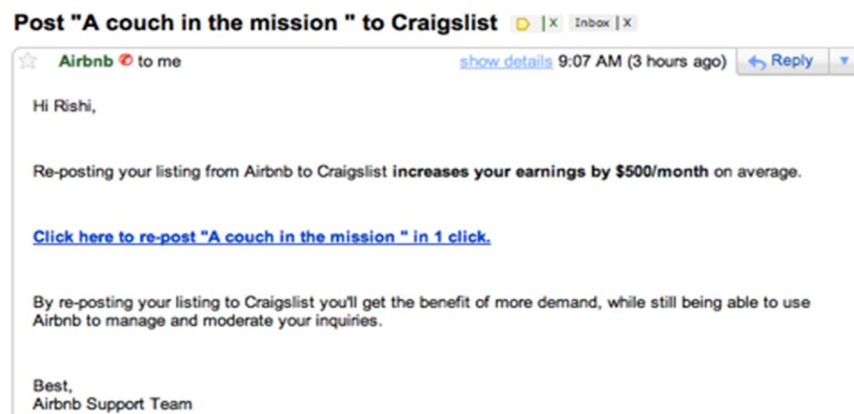
Lastly, growth hacking is often based on strategies that are very technical and complex, something a traditional marketer could not think about. The most famous

²³ Stefanski, R. (2015, May 5). *Hey Marketers, Stop Using Your Gut Instinct*. Retrieved from One Hour Professor: <http://onehourprofessor.com/hey-marketers-stop-using-your-gut-instinct/>.

²⁴ See p. 2.

²⁵ *100 Greatest Publicity Stunts of All Time*. (2012, October 23). Retrieved from BitesizePR: <https://bitesizepr.com/100-best-pr-stunts/>.

example is the Airbnb integration with Craigslist²⁶. Airbnb is a website founded in 2008 that let users to rent whatever lodging they have²⁷. It is a case of multi-side platform where each side, both the hosts and the guests, enjoy network effects²⁸. Then, during its first years, Airbnb had to quickly develop a large number of users. Back to 2010, it accomplished this task on the demand side - the guests - thanks to a successful integration with Craigslist, the largest USA website for renting. By exploiting a flaw in the Craigslist system, Airbnb made possible for its hosts to publish their listings on Airbnb and, clicking a button, automatically on Craigslist too. This difficult task was accomplished with no public Craigslist API²⁹. The Airbnb hosts could still enjoy the



Airbnb publication instruments, far superior to the relatively few automated tools of Craigslist, while having the huge amount of potential tenants provided by Craigslist.

Figure 3: Airbnb email to repost on Craigslist.

Source: <http://growth.digital/wp-content/uploads/2014/11/airbnb-craigslist-email1.png>

²⁶ Chen, A. (2012, April 27). *Growth Hacker Is the New VP Marketing*. Cit.

²⁷ Airbnb. (2015). *About Us*. Retrieved from Airbnb.com: <https://www.airbnb.com/about/about-us>.

²⁸ *Network effect*: “is the effect that one user of a good or service has on the value of that product to other people. When a network effect is present, the value of a product or service is dependent on the number of others using it.” See: *Network effect*. (2015). Retrieved from Wikipedia: https://en.wikipedia.org/wiki/Network_effect.

²⁹ “API (*application program interface*) is a set of routines, protocols, and tools for building software applications. The API specifies how software components should interact and APIs are used when programming graphical user interface (GUI) components. A good API makes it easier to develop a program by providing all the building blocks. A programmer then puts the blocks together”. See: Beal, V. (n.d.). *API - application program interface*. Retrieved from Webopedia.com: <http://www.webopedia.com/TERM/A/API.html>.

The Airbnb strategy resulted in quickly boosting the acquisition of new customers on both sides of the platform. However, even if the result was a good answer to the old marketing question of *how to acquire new clients*, the methodology is something technical more related to engineering.

Chapter II

Factors in the growth hacking rise

““Growth hacker” is a new word for most but a long held practice among the best internet marketers and product managers in Silicon Valley”³⁰.

The Aaron Ginn quote points to two important points about growth hacking. The first one is that although the term is new it refers to already established implementations. The latter is that the environment of such early applications is the Silicon Valley.

Growth hacking has been developed as a consequence of three main factors:

- A. the shortcomings of traditional marketing;
- B. the worldwide proliferation of mobile devices and internet access;
- C. an economic background filled with the presence of startups and entrepreneurship.

In the remainder of this chapter, the focus will be on these three causes.

2.1 The shortcomings of traditional marketing³¹

³⁰ Ginn, A. (n.d.). *What is a growth hacker?*. Cit.

³¹ This section is aimed to offer a panning shot of the issue. For a deeper analysis, see:

- Kamran Kashani, J.-P. J. (2005). *Beyond Traditional Marketing: Innovations in Marketing Practice*. Chichester: John Wiley & Sons.
- Lambin, J.-J. (2013). *Changing Market Relationships in the Internet Age*. Louvain-la-Neuve: Presses universitaires de Louvain.

A first definition of what is demarcated as *traditional marketing* has already been provided in the previous chapter³². The concept can be further deepened looking at the *marketing-mix* idea³³. Marketing can be made of many ingredients. E. Jerome McCarthy classified these elements under four Ps: *Product*, *Price*, *Place* and *Promotion*³⁴. The marketing executive must choose the right combination of strategies



Figure 4: E.J. McCarthy's 4Ps of marketing mix.

Source: <http://tips4eyedocs.com/wordpress1/2012/11/06/product-marketing-and-optometry-4ps-of-mccarthy-partone/>

for each of these aspects. In this process, he has to look at budget constraints, the firm size, the distribution channels available and at the interaction of all these factors.

The four Ps model has been expanded and revised by different authors³⁵, but traditional marketing is fundamentally the marketing rooted on this mindset and the old “ingredients” available.

³² See p. 2.

³³ The term *marketing mix* was first introduced by Neil Borden, president of the American Marketing Association, in 1953. See: Borden, N. H. (1965). The Concept of the Marketing Mix. In G. S. (Ed.), *Science in Marketing* (p. 286). New York: John Wiley.

³⁴ McCarthy, J. E. (1964). *Basic Marketing. A Managerial Approach*. Homewood, IL: Irwin.

³⁵ Among others, see:

Its shortcomings can be systematically analyzed looking at each different part of the McCarthy's marketing mix.

2.1.1 *Promotion*

Promotion includes all the methods used to provide information about the product or the company. Promotion strategies can imply advertising, public relations, sales organization and the management of word-of-mouth.

Traditional marketing suffers from the disadvantages of traditional advertisement channels – the Promotion “ingredients”. *Marketing channels* are all different types of vehicles for the company's message. They are instances of traditional marketing channels: television, radio, publications such as newspapers and magazines, billboards, telephone calls, mails, face to face, sponsorship of events and street marketing.

Several articles counter *traditional marketing* with *digital marketing*³⁶. Digital marketing is “the marketing of products or services using digital channels to reach consumers. The key objective is to promote brands through various forms of digital media”³⁷. This approach is flawed because of the fact that it only considers the

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- Booms, B. H., & Bitner, M. J.–5. (1981). Marketing Strategies and Organization Structures for Service Firms. In J. Donnelly, & W. George, *Marketing of Services* (pp. 47–51). Chicago: American Marketing Association;
 - Lauterborn, B. (1990). New Marketing Litany: Four Ps Passé: C-Words Take Over. *Advertising Age*, 61(41), 26.

³⁶ Among others, see:

- Digital-marketing-strategy.weebly.com. (n.d.). *Digital Marketing versus Traditional Marketing*. Retrieved from Digital-marketing-strategy.weebly.com: <http://digital-marketing-strategy.weebly.com/digital-marketing.html>;
- Lavinsky, D. (2013, March 8). *Is Traditional Marketing Still Alive?* Retrieved from Forbes.com: <http://www.forbes.com/sites/davelavinsky/2013/03/08/is-traditional-marketing-still-alive/2/#6c2c377436dc>;
- Mercer, C. (2015). *Traditional vs. Online Marketing*. Retrieved from Seriouslysimplemarketing.com: <http://seriouslysimplemarketing.com/traditional-vs-online-marketing/>.

³⁷ Financial Times. (2016, January 14). *Ft.com/lexicon*. Retrieved from Definition of digital marketing: <http://lexicon.ft.com/Term?term=digital-marketing>.

Promotion part of the marketing. It overlooks the *Product*, the *Price* and the *Place* fields. On the contrary, growth hacking encloses digital marketing but changes the overall architecture of traditional marketing.

Social media, search optimization, google AdWords, websites, blogs, mobile applications, emails, chats can be considered all examples of digital marketing. Digital marketing covers also other forms of advertisements such as SMS and MMS that are not strictly related to the internet.

It follows a list of relevant defects of traditional promotion that are overcome by digital marketing and growth hacking instruments.

Cost

The first disadvantage of advertisements on television, radio and the other media, as already mentioned in the previous chapter³⁸, is the high cost per client acquisition. Television ads are usually prohibitive for most small companies. Currently, a 30-second ad for the 2016 Super Bowl is selling for as much as \$5 million³⁹. The high level of demand raises the prices of the main media.

Furthermore, competition brings saturation, which lowers the life-time value of the investment. Customers are overexposed to several ads. They can read many commercials in a publication. Television breaks last for minutes. Even famous events usually have quite a lot of sponsors. It takes a short time before a person forgets about a specific promotion unless it is particularly impressive which is usually not the case.

The local media such as a regional radio station or a town newspaper is more affordable but this advantage is coupled with a significantly lesser reach.

Limited audience

Traditional marketing channels are affected by the constraints of a limited audience. While such limits are physical in the case of event sponsorship, face-to-face, street marketing and billboards where the audience is congenitally small, the broadcast media is often limited by national boundaries or regulation. It can typically reach a large group of spectators depending on the Country size.

³⁸ See p. 7.

³⁹ Groden, C. (2015, August 6). *This is how much a 2016 Super Bowl ad costs*. Retrieved from Fortune.com/: <http://fortune.com/2015/08/06/super-bowl-ad-cost/>.

Internet and digital marketing can enable companies to overcome geo-political constraints with a minor deployment of resources. Internet advertisement is potentially global.

Like of timeliness.

An old style marketing campaign is planned months in advance. It is carefully researched and has a focus on details and execution. Once it has begun, changing it may imply high adjustment costs and lags. Billboards, advertisements on magazines and flyers are nearly impossible to change once printed and released. The use of traditional media also faces some difficulties. An ad on a TV channel, for instance, is planned depending on its price, the audience characteristics and the overall network programming. Modifications may be subject to contractual constraints or lags due to the need to produce the spot again.

Updating a website, a blog, a Facebook account or a digital leaflet can be done in a matter of hours.

Additionally, digital marketing also has the advantage of providing real time results. It is possible to check the daily number of users for an application, the bounce rates, the conversion rates, trend hashtags and number of clicks virtually instantaneously.

The timeliness of information (input) and updates (output) leads to the possibility of being able to rapidly change and adapt the strategy, a luxury the traditional marketers could not afford.

No traceability

This issue has already been analyzed. This information can be found in the second paragraph of the first chapter⁴⁰.

Hard to Target Audience.

Traditional marketing channels usually have a high cost of acquisition per new client because there is a waste of resources on targeting the wrong kind of people. A radio ad may be heard by a vast audience of not uninterested people besides the prospectors that may actually convert to real customers.

⁴⁰ See p. 7.

Print and broadcasts provide statistics about audience demographics, but “once a magazine is mailed, a paper is delivered or an ad is broadcast, you don’t know who actually read, saw or viewed your ad”⁴¹.

Digital marketing provides far more refined instruments. Social media and search engines, among others, can store data about the user’s preferences and make an accurate profiling. They enable for targeting the kind of person that can really have an interest in the product or service that is provided. Digital marketing can be less “forced on user”. In turn, this implies very high conversion rate.

Static

Face-to-face, calls and mails are some of the more interactive traditional marketing instruments, however, besides small businesses, they are usually too expensive to cover the overall targeted market. Traditional marketing tends to be static and one-way. It is the company that sends messages trying to convert outside people into buying clients. In Traditional marketing “people don’t share a community with the brand, and as a result, they don’t care”⁴². There is a lack of community building.

Digital marketing provides news and sophisticated instruments for community building. Emails, websites and, above all, social media enable organizations to be more and more interactive. Customers can comment and share their ideas about a product. They can send feedback or complaints and have nearly instantaneous answers. They can “like” the company Facebook page and get real time updates about offers and events. They are engaged into the business.

Companies may also make specific offers depending on trackable user behaviors. Dropbox, a file hosting service, has been using a successful referral program to quickly increase its user base. Currently, a basic user can earn 500 MB of free space per referral and up to 16 GB⁴³.

⁴¹ Ashe-Edmunds, S. (n.d.). *The Disadvantages of Traditional Advertising*. Retrieved from Smallbusiness.chron.com/: <http://smallbusiness.chron.com/disadvantages-traditional-advertising-21215.html>.

⁴² Souza, J. (2012, February 22). *Pros & Cons of Traditional vs. Social Media Marketing*. Retrieved from Socialmediatoday.com: <http://www.socialmediatoday.com/content/pros-cons-traditional-vs-social-media-marketing>.

⁴³ Dropbox Inc. . (2015). *How do I earn bonus space for referring friends to Dropbox?* Retrieved from Dropbox.com: <https://www.dropbox.com/help/54>.

Focus on acquisition

Traditional marketers and digital marketers are still too much dedicated to the acquisition of new clients rather than the retention of current customers.

A Forrester Research study shows that individual resellers spend almost 80% of their interactive marketing budgets on display and search engine advertising, while most of the revenue comes from returning or repeat purchases from a small percentage of clients^{44,45}. In Europe, 38% of total revenue comes from returning and repeat purchasers which are merely 10% of the total visitors. In the U.S.A. this trend is even more evident: 41% of revenue is originated from returning and repeat purchasers that amount to only 8% of total users⁴⁶.

On the contrary, growth hacking firstly focuses on the satisfaction of the existing user base. Only after collecting good current customers' ratings, the product is advertised to expand its market share.

However, this difference is mostly based on the way the Product part of the marketing mix is approached.

2.1.2 Product⁴⁷

A product is “an item that satisfies what a consumer demands”⁴⁸. It can be either a tangible good or a service.

In the traditional mindset, the marketer only had to choose a strategy depending on the product's life-cycle. It merely had an influence on the product mix but the most of its work is outside the development domain. Marketing is predominantly related to branding and positioning.

⁴⁴ The report classifies website visitors into three categories: shoppers (no previous purchase), returning purchasers (one previous purchase), and repeat purchasers (multiple previous purchases).

⁴⁵ VanBoskirk, S. (2011). *US Interactive Marketing Forecast by Industry 2011-2016*. Forrester Research.

⁴⁶ *Ibidem*.

⁴⁷ For a detailed analysis of the problems of the *Product* part of the traditional marketing, see pp. 4 - 6.

⁴⁸ *Marketing mix*. (n.d.). Retrieved from Wikipedia.org: https://en.wikipedia.org/wiki/Marketing_mix.

As explained in the first chapter, this has the enormous downside of often reducing traditional marketing to the activity of promoting a defective product with the connected waste of resources for both the firm and the clients.

The *Product* part is the real focus of the growth hacking breakthrough innovation. By merging the development and marketing functions, growth hacking avoids the risk of wasting money on trying to market a hopeless product. Furthermore, the marketer is now in charge for tweaking the “bad” product until it becomes “good”.

The old marketing mindset also had a less important weakness related to the *Product* part. Products usually were not conceived to be customized. The customization was something viewed as costly and inefficient. The Lean Manufacturing framework developed through the 1990s has gradually changed this perspective⁴⁹.

The set of technologies, culture and procedures dating back to the Toyota Production System⁵⁰ have made clear how to efficiently produce in small bunches. These physical improvements coupled with digital marketing and growth hacking tools enable the company to customize its services and products. Though the technical aspects are complex, the overall mechanism is quite simple. The more a firm interacts with a client, the more it can collect information about them. The more data available, the more the company can develop customized products/services that appeal to the customer.

Amazon, an American ecommerce and cloud computing firm, has been one of the pioneers in using data to foster heighten quality customer experience. Amazon has two kind of users: sellers and buyers. Using data about transactions and trends, Amazon is able to make specific recommendations to both of them. One of the most famous

⁴⁹ Womack, J. P., Jones, D. T., & Roos, D. (2007). *The Machine That Changed the World (Reprint edition)*. New York: Free Press.

⁵⁰ The Toyota Manufacturing System (TMS) is a socio-technical system developed between 1948 and 1975 by Taiichi Ohno and Eiji Toyoda, industrial engineers working for Toyota, a Japanese automotive manufacturer. It reduces wastes inside the company through a set of principles, technologies and procedures affecting both the manufacturing and the logistics. To deepen the issue, see: Toyota Motor Corporation. (1998). *The Toyota Production System – Leaner manufacturing for a greener planet*. Tokyo: TMC, Public Affairs Division.

features is the Almost Out-of-stock email⁵¹. Analyzing data on selling, inventory and customers' seasonal habits, Amazon can warn a seller when he risks running out of a product. Additionally, it can also makes suggestions to sellers about new products or services that are likely to be easily sold which they can find useful to add to their existing inventory. On the buyers' side, crossing the user's individual data with the data of the other users buying the same type of products, Amazon is able to send to the customer ads and offerings about merchandise he is expected to find interesting. Then, Amazon's digital tools impact on the seller's inventory and product mix while making customized offerings to the buyers and pushing for the commercialization of products or services they are currently searching for but cannot find.

2.1.3 Price

The price is the amount that the customer pays for the product or the service. It is adjusted primarily according to the market penetration strategy, the competition, the price elasticity and the overall company cost structure.

The *Price* part of the marketing mix has been less subject to critics. Price strategies have already been widely treated by classical management literature and, in this field, the digital instruments adopted by the growth hackers offer essentially an incremental innovation rather than a disruptive one⁵².

Also concerning price, a refined differentiation is now possible depending on the collected data about the users' characteristics. Clients' income and average expenditure, tastes, price elasticity and community have important effects on the firm ability to determine and differentiate the price.

⁵¹ Rao, L. (2013, August 31). *How Amazon Is Tackling Personalization and Curation for Sellers on Its Marketplace*. Retrieved from Techcrunch.com: <http://techcrunch.com/2013/08/31/how-amazon-is-tackling-personalization-and-curation-for-sellers-on-its-marketplace/>.

⁵² *Incremental innovations* are improvements to already existing processes, products, services or organizations. They maintain or enhance a competitive advantage based on established businesses. *Disruptive (radical) innovations* are innovations that produce major changes significantly impacting on the market. They are departures from already existing businesses. Dess, G., Lumpkin, G., Eisner, A., & McNamara, G. (2011). *Strategic Management: Text and Cases 6th Edition*. New York: McGraw-Hill Education, pp. 475 – 477.

Through websites, mobile applications and other digital channels, firms can allow to people to choose the size of their offers, the number of “extras” and add-ins and charge vary prices accordingly.

Furthermore, the geo localization enabled by GPS, IP addresses and other technologies facilitates a price discrimination depending on the customer’s physical position.

The timeliness of digital information leads to the possibility of quickly adjusting prices and creating discounts based on time and date. This is particularly important for setting a winning *skimming price strategy*⁵³ in an automated fashion.

However, as noted above, these instruments are mostly an evolution of already existing traditional marketing strategies. Growth hacking does not change this approach.

2.1.4 *Place*

The *Place* refers to the methods used to deliver the product or perform the service. Thus, this part of the marketing mix concerns the distribution channels. There are several strategies available. For instance, a marketer can adopt an exclusive distribution⁵⁴ rather than an intensive distribution⁵⁵ heighten the customer’s perceived value.

⁵³ *Skimming price strategy*: the firm, at beginning, offers a new or innovative product at a higher price since the “early adopters” aren’t very price sensitive. Then, it lowers the price to “skim” off the next layer of buyers and so on until the product matures and the price is eventually set on a competitive level. See: Wilson, R. F. (2000, May 9). *P4: Pricing Strategy as Part of Your Internet Marketing Plan*. Retrieved from Webmarketingtoday.com: <http://webmarketingtoday.com/articles/plan-pricing/>.

⁵⁴ *Exclusive Distribution*: a form of distribution “in which only one wholesaler, retailer or distributor is used in a specific geographical area... This is a common form of distribution in products and brands that seek a high prestigious image”. See: Chand, S. (2015). *Types of Distribution: Intensive, Selective and Exclusive Distribution*. Retrieved from Yourarticlelibrary.com: <http://www.yourarticlelibrary.com/distribution/types-of-distribution-intensive-selective-and-exclusive-distribution/5780/>.

⁵⁵ *Intensive Distribution*: “aims to provide saturation coverage of the market by using all available outlets. For many products, total sales are directly linked to the number of outlets used (e.g., cigarettes, beer). Intensive distribution is usually required where customers have a range of acceptable brands to choose from. In other words, if one brand is not available, a customer will simply choose another”. See: *Ibidem*.

Traditional marketers changed and extended their strategies to adapt to the threats and opportunities of the Internet. E-commerce⁵⁶ has been growing throughout

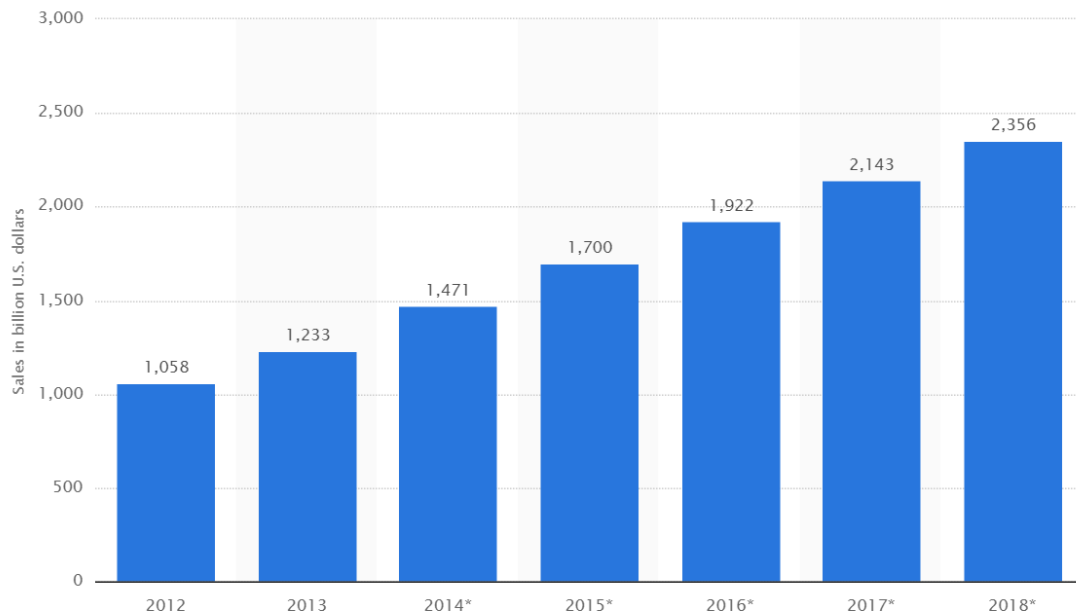


Figure 5: B2C e-commerce sales worldwide from 2012 to 2018 (in billion U.S. dollars). This statistic provides information on B2C e-commerce sales worldwide in 2012 and 2013 including a forecast until 2018. In 2016, global B2C e-commerce sales are expected to reach 1.92 trillion U.S. dollars.

Source: <http://www.statista.com/statistics/261245/b2c-e-commerce-sales-worldwide/>

the last two decades and it is expected to keep on this path.

Internet usage has also shifted the preferred distribution system from indirect channels towards direct channels where the firm can sell directly to the customer rather than from wholesale to retail.

This has improved the firm's ability to control the downward chain value and assure a higher level of quality to the clients. In fact, channel distribution problems can occur because of the channel partners. The partners can have inadequate products or

⁵⁶ According to OECD, an *e-commerce transaction* is the sale or purchase of goods or services over computer mediated networks (broad definition) or the Internet (narrow definition). See: Fredriksson, T. (2013, April 9). *E-commerce and Development - Key Trends and Issues*. Retrieved from Wto.org: https://www.wto.org/english/tratop_e/devel_e/wkshop_apr13_e/fredriksson_ecommerce_e.pdf.

market knowledge and conflicting incentives with the firm. The result is poor service to customers and lost sales opportunities⁵⁷.

However, even the *Place* strategies are affected by the classical downfalls of the traditional approach: gut instinct.

“Growth Hacker starts trying out different distribution channels to find a sustainable way to reach out to target users. The aim is to find out what works better for their product. Choices made at this point are driven by qualitative considerations—whether a channel seems to fit the nature of the product and target users. Later, the growth hacker will optimize further within the channels that seem to work to arrive at *the channel* which provides maximum desired user behavior per \$ spent”⁵⁸.

The issue will be deepened in the third chapter⁵⁹.

In conclusion, the afore-mentioned weaknesses of traditional marketing have pushed for related solutions of the growth hacking approach.

Nevertheless, it is important to underline two advantages that traditional methods may still claim and the growth hacking techniques lack:

- they have been tested and proven for decades;
- they use real word channels.

Particularly, the instruments that enable data gathering and analysis implied by growth hacking are mostly Internet based.

“With traditional marketing, anyone with a newspaper, mail service, television or radio can learn of your business or service”⁶⁰. Internet instruments are tied to people having an online medium and being Internet savvy.

⁵⁷ Linton, I. (n.d.). *Marketing & Solving Channel Distribution Problems*. Retrieved from Smallbusiness.chron.com: <http://smallbusiness.chron.com/marketing-solving-channel-distribution-problems-20661.html>.

⁵⁸ Jain, A. (2014, December 30). *Growth Hacking and The Art of Experimenting with a Distribution Channel*. Retrieved from Medium.com: <https://medium.com/@ankitjain/growth-hacking-and-the-art-of-experimenting-with-a-distribution-channel-41071a22a35a#.9h45foeze>.

⁵⁹ See p. 53.

Growth hacking is backed by a specific technological environment.

2.2 The changed technological landscape

The world has rapidly changed in recent years. Notebooks, smartphones and tablets have drastically changed everyday life.

A famous NBC News's collage highlights the diffusion of the new technologies.



Figure 6: St. Peter's Square in 2005 vs. 2013.

The first pic shows St. Peter's Square in 2005 after Pope John Paul II's death, when his body was carried across the square and into the Basilica for public viewing.

The second pic represents the same place in 2013 on occasion of the first Pope Francis's speech after his election.

Source: NBCNews

⁶⁰ Higuera, V. (n.d.). *Advantages & Disadvantages of Traditional Marketing*. Retrieved from Smallbusiness.chron.com: <http://smallbusiness.chron.com/advantages-disadvantages-traditional-marketing-25573.html>.

The difference between the two pictures in the figure 6 is impressive. After only eight years, almost every person in St. Peter's Square is equipped with mobile devices. Furthermore, the kind of mobile device is totally different. The computation capabilities, internet speed and storage have all drastically increased.

Growth hacking relies on analytics, real time results, A/B tests, online surveys, automation, SEO - search engine optimization, content marketing, social media, emails and a set of technical tools. These instruments are based on the connection of users with the firm.

Then, besides mere innovation, three main technological factors have built the field for the growth hacking diffusion:

- greater internet access;
- the propagation of mobile devices;
- the rise of huge internet platforms.

2.2.1 Growth in the internet access

Growth hacking may imply strategies that depend on digital channels that are not internet based such as SMS and calls and it may also apply real world techniques. However, most growth hackers are programmers that use internet based solutions both to gather data and to launch the product into the market.

Furthermore, growth hacking has been a practice mostly in high tech startups whose products often are applications available for download in the app store.

Thus, the internet access of firms and customers is a fundamental precondition.

Internet access “connects individual computer terminals, computers, mobile devices, and computer networks to the Internet, enabling users to access Internet services, such as email and the World Wide Web.”⁶¹

In recent years, the number of internet users has increased substantially.

⁶¹ *Internet access*. (2016). Retrieved from Wikipedia.org: https://en.wikipedia.org/wiki/Internet_access.

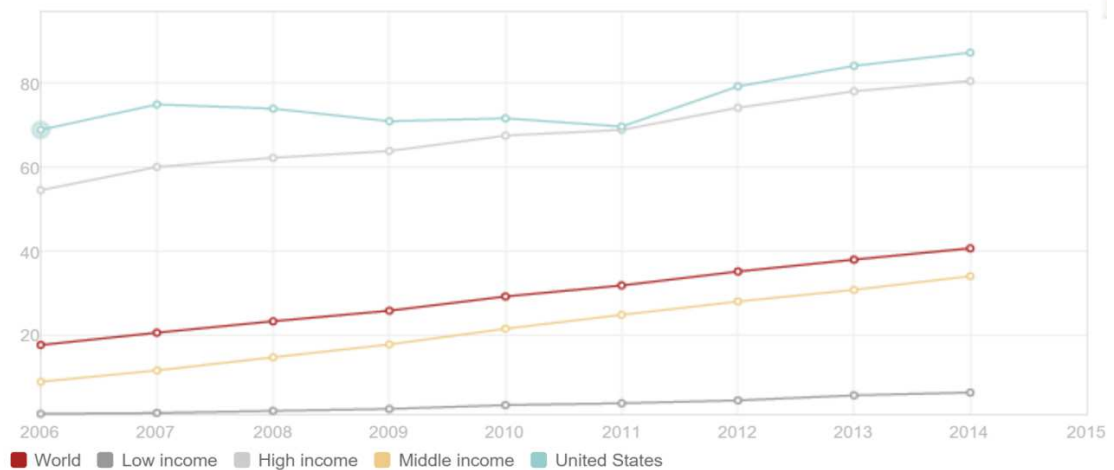


Figure 7: Internet users (per 100 people)

Internet users are individuals who have used the Internet (from any location) in the last 12 months. Internet can be used via a computer, mobile phone, personal digital assistant, games machine, digital TV etc.

Source: International Telecommunication Union, World Telecommunication/ICT Development Report and database, and World Bank estimates.

While in 2006, less than the 20% of the world's population had internet access, in 2014, 4 people out of 10 been able to connect to the internet at least once in the previous twelve months.

However, figure 7 shows high inequality in internet distribution. In 2014, internet users were roughly 80% of the population in high income countries but only 6.3% in low income nations.

The uneven internet access is one of the main elements of the digital divide: “the gap between people with effective access to information and communications technology (ICT), and those with very limited or no access”⁶². Government policies, geographical location and financial conditions play all an important role in determining who can take advantage of internet.

The issue can be better analyzed looking at the broadband affordability which links the cost of the high speed net to people's financial resources.

⁶²Wattal, S., Hong, Y., Mandviwalla, M., & Jain, A. (2011). Technology Diffusion in the Society: Analyzing Digital Divide in the Context of Social Class. *44th Hawaii International Conference on System Sciences (HICSS)*, pp. 1 - 2.

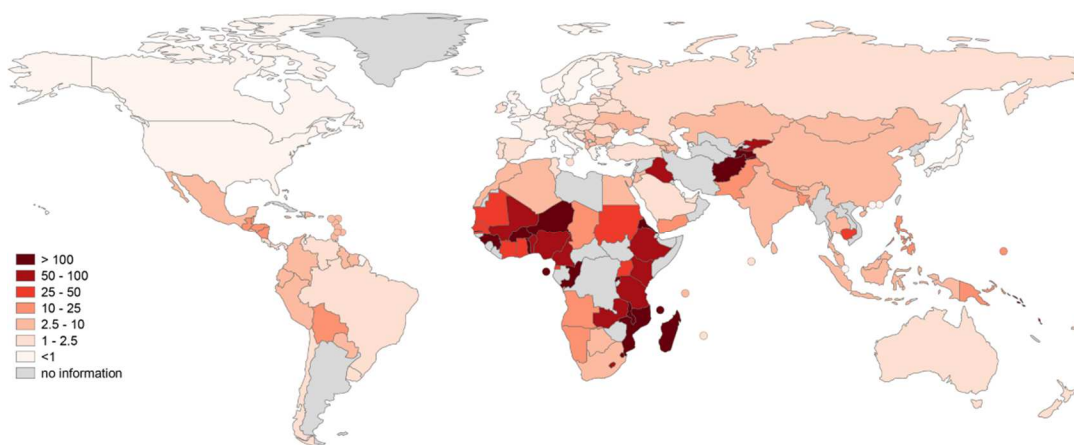


Figure 8: Broadband Affordability.
Cost of broadband subscription as a percentage of average yearly income.
Source: ITU and World Bank.

In some poor countries such as Madagascar, Afghanistan and Mali, the cost of a broadband subscription exceeds the annual income while in North America, Russia, Australia and the most of Europe it is less than 2.5%.

Nevertheless, even middle income countries can have serious problems regarding digital divide. The Affordability Report, drawn by the Alliance for Affordable Internet (A4AI), a consortium of private companies and public sector organizations dedicated to bringing internet costs down through policy change, found that the majority of people that cannot afford an internet connection do not live in the poorest countries but in countries as Indonesia, Iran, China and Brazil with high income disparity. Once Internet Service Providers (ISP) have connected the rich areas of the towns, they do not bring the internet access to the slums or the poor rural regions because of the low level of demand⁶³.

Besides internet access, another important issue is web quality. Low speed or frequent outages are likely to discourage internet use even if a person can access it.

Internet speed has been constantly improving. The bit rates for dial-up modems was 110 bit/s in the late 1950. As of 2015, broadband was ubiquitous around the world, with a global average connection speed exceeding 5.1 Mbit/s⁶⁴.

⁶³ Jorge, S., & Goldstein, J. (2013). *The Affordability Report*. Alliance for Affordable Internet.

⁶⁴ Akamai. (2015, December 30). *Akamai's [State of the Internet] Q3 2015 Report*. Retrieved from Akamai.com: <https://www.akamai.com/us/en/multimedia/documents/report/q3-2015-soti-connectivity-final.pdf>.

However, even on this side, there are strong disparities among countries. In 2015, South Korea had the highest average internet speed with 20.5 Mbps while some countries as Venezuela and Paraguay had an average connection of less than 2 Mbps⁶⁵.

Additionally, the Akamai⁶⁶ Q3 2015 Report shows how there are still frequent outages are worldwide. Outages may be due to human accidents, natural factors or political interventions. For instance, both Syria and Iraq experienced outages in 2015 whose causes are still unknown⁶⁷.

Growth hacking strategies are strongly affected by this disparity. Growth hacking is born in the Silicon Valley in the USA where, as showed by figure 7, 87.4% of the population has internet access. Digital marketing and all the internet based tools are likely to be defected for markets in low income country or in middle or high income regions with digital divide.

The usual distribution channels can completely fail. Even if there is an internet connection, the download of a program from the app store may be so time consuming to deter any possible user.

Furthermore, the growth hacking community has been multiplying around virtual places like blogs, websites, social media pages and forums⁶⁸. A further diffusion of the growth hacking mindset in new realities needs to be backed by an internet ecosystem.

⁶⁵ *Ibidem*.

⁶⁶ Akamai Technologies, Inc. is the American global leader in Content Delivery Network (CDN) services and a cloud services provider.

⁶⁷ *Ibidem*.

⁶⁸ Among others, see:

- <http://www.growthhackersconference.com/>
- <http://okdork.com/>
- <http://techcrunch.com/>
- <http://www.startup-marketing.com/>
- <http://growthhackers.com/>
- <http://andrewchen.co/>.

2.2.2 The spread of mobile devices

The Internet has been fundamental in the development of growth hacking.

As noted above, internet access may happen through a large set of instruments: individual computer terminals, computers, mobile devices, and computer networks which means that it is possible to access internet from both fixed and mobile instruments.

Through the last decades of the 20th Century, internet access was essentially desktop based. The first access to the mobile web was commercially offered in Finland in 1996 on the Nokia 9000 Communicator phone⁶⁹. In the first years of 21st Century, the development of new technologies enabled mobile devices to improve and perform better with a web connection.

Eventually, in 2014, the mobile web overcame the traditional fixed-line services on laptops and desktop computers.

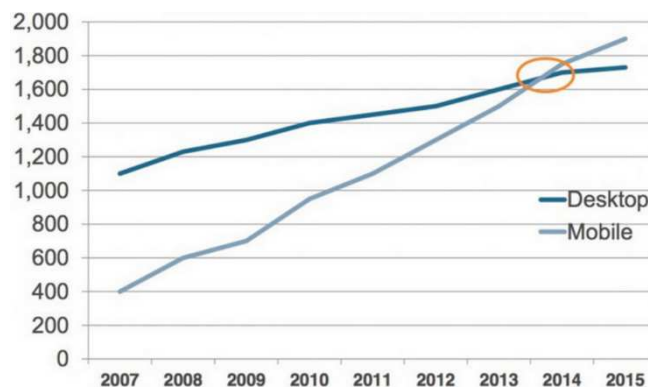


Figure 9: Number of Internet Global Users.

The figure shows the number of people using internet via desktop vs the number of people using internet via mobile. A person who connects via desktop and via mobile is counted for both.

Source: <http://www.smartinsights.com/mobile-marketing/mobile-marketing-analytics/mobile-marketing-statistics/>

The trend showed by the figure 9 is expected to continue, at least in the short run. The technological development is bringing into the market more and more mobile devices able to fully compete with desktop computer. Customers who do not have

⁶⁹ *Mobile Web*. (2015). Retrieved from Wikipedia.org: https://en.wikipedia.org/wiki/Mobile_Web.

particular professional needs see tablets, hybrids and even smartphones as comfortable substitutes of traditional desktop computers.

In 2015, the time spent per American adult user per day with digital media was allocated for the 42% to desktop/laptop and for the 51% to mobile⁷⁰.

On this point, the above mentioned Akamai Q3 2015 Report gives an interesting insight into the voice and data traffic for mobile phones.

As showed by the figure 10 below, both have been rising through the last five years, but data volume's development has been at a far higher rate. The slight increase in voice volume may be due to an increased number of mobile devices coupled with a lower voice usage of already existing users. A practice that can be explained in terms of a shift towards VoIP⁷¹ applications.

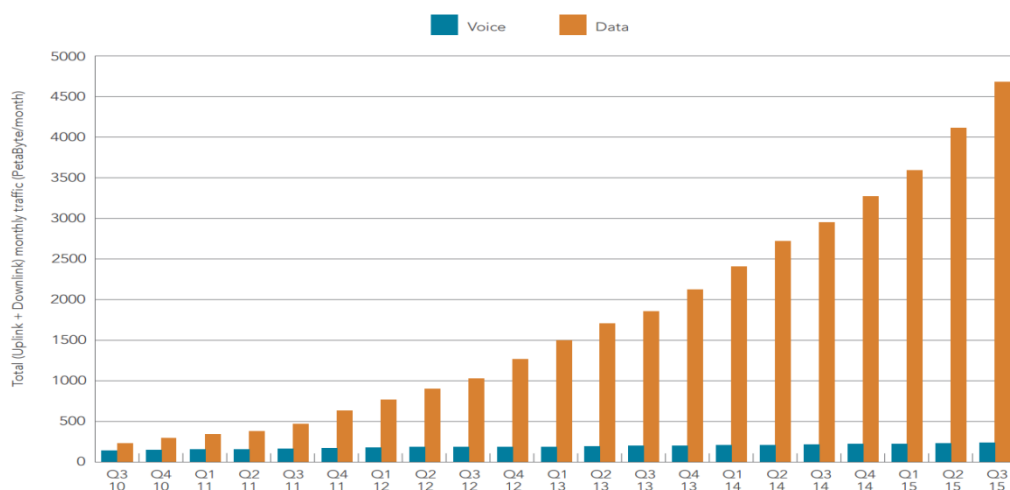


Figure 10: Total Monthly Mobile Voice and Data.

The figure shows mobile voice and data volumes from the first quarter of 2010 to the third quarter of 2015. The traffic is related to smartphones, tablets, computers, and other devices that connect to the Internet through mobile network providers.

Source: <https://www.akamai.com/us/en/multimedia/documents/report/q3-2015-soti-connectivity-final.pdf>

⁷⁰ Bosomworth, D. (2015, July 22). *Mobile Marketing Statistics compilation*. Retrieved from Smartinsights.com: <http://www.smartinsights.com/mobile-marketing/mobile-marketing-analytics/mobile-marketing-statistics/>.

⁷¹ *Voice over IP (VoIP)* “is a methodology and group of technologies for the delivery of voice communications and multimedia sessions over Internet Protocol (IP) networks, such as the Internet”. See: *Voice over IP*. (2015). Retrieved from Wikipedia.org: https://en.wikipedia.org/wiki/Voice_over_IP

The report identifies the growth in data traffic, instead, as being driven by two factors: the increase in average data volume per subscription, fueled primarily by increased viewing of video content, and the increased smartphone subscriptions⁷².

Mobile cellular subscriptions can be used as a proxy for the spread of mobile devices.

The World Bank data reported an average of 96.3 mobile cellular subscriptions per 100 people.

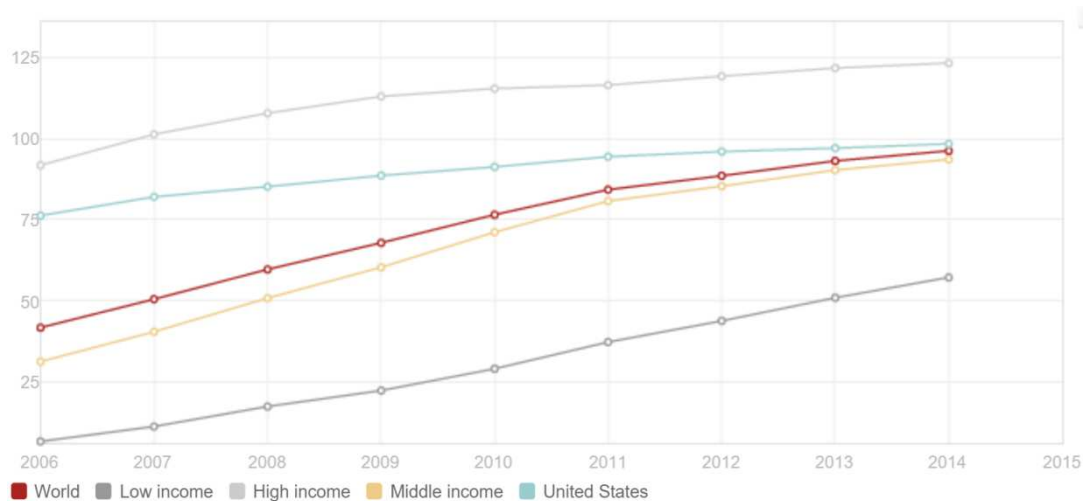


Figure 11: Figure 10: Mobile cellular subscriptions (per 100 people)

Mobile cellular telephone subscriptions are subscriptions to a public mobile telephone service that provide access to the PSTN using cellular technology. The indicator includes (and is split into) the number of postpaid subscriptions, and the number of active prepaid accounts (i.e. that have been used during the last three months). The indicator applies to all mobile cellular subscriptions that offer voice communications. It excludes subscriptions via data cards or USB modems, subscriptions to public mobile data services, private trunked mobile radio, telepoint, radio paging and telemetry services.

Source: World Bank, International Telecommunication Union, World Telecommunication/ICT Development Report and database

However, this data must be treated carefully. It would be a mistake to infer that 96.3% of the population has a mobile device. A single person can have many mobile phone subscriptions as made clear by the information about high income countries where there was an average number of 123.3 subscriptions per 100 people in 2014. Furthermore, the data does not account for USB modems, subscriptions to public mobile data and other means to have mobile internet access.

⁷² Akamai. (2015, December 30). Akamai's [State of the Internet] Q3 2015 Report. Cit. Pp. 43 – 44.

Nevertheless, the figure can be considered reliable in showing the quick spread of mobile devices around the world. The trend is particularly upward sloped for low income countries where the economic and financial constraints highly reduce the analysis problem of more mobile cellular subscriptions per person. In these States, the number of subscriptions per 100 people rose from 6.7 in 2006 to 57.2 in 2014 performing a clearly positive trend.

The spread of mobile devices has enabled forms of advertisements employing SMS, MMS, calls, mobile internet and GPS technologies that are different from the desktop based digital marketing.

Growth hackers are the vanguard in the utilization of these systems⁷³.

However, a comparison between figure 11 on the number of mobile cellular subscriptions and figure 7 about the internet users pinpoints how digital channels that are not internet based, such as SMS and calls, ideally can be used to reach a wider audience – 96.3 mobile cellular subscription per 100 people vs 40.7 internet user per 100 people worldwide. The proposition is true for every group of countries: high income (123.3 vs 80.6), middle income (93.6 vs 34.1) and low income (57.2 vs 6.3).

Nevertheless, once accounted for the issue of multiple subscriptions, this trend becomes really remarkable for low income nations. Here, a possible digital marketing strategy aimed at targeting the majority of the population could simply adopt not internet based solutions.

2.2.3 The rise of huge internet platforms

The spreading of cheaper internet access coupled with the proliferation of mobile devices has led to the last main technological factor behind the growth hacking mindset emergence: the rise of huge platforms.

As the Airbnb case discussed in the first chapter⁷⁴ attests, growth hackers design integrations with huge platforms to speed up the reach of a multitude of users.

⁷³ See p. 65.

⁷⁴ See p. 8.

These channels are both larger (billions versus million) and faster than traditional marketing channels. The main instance of such platforms are social networks like Facebook or Twitter with hundreds of millions of active users.

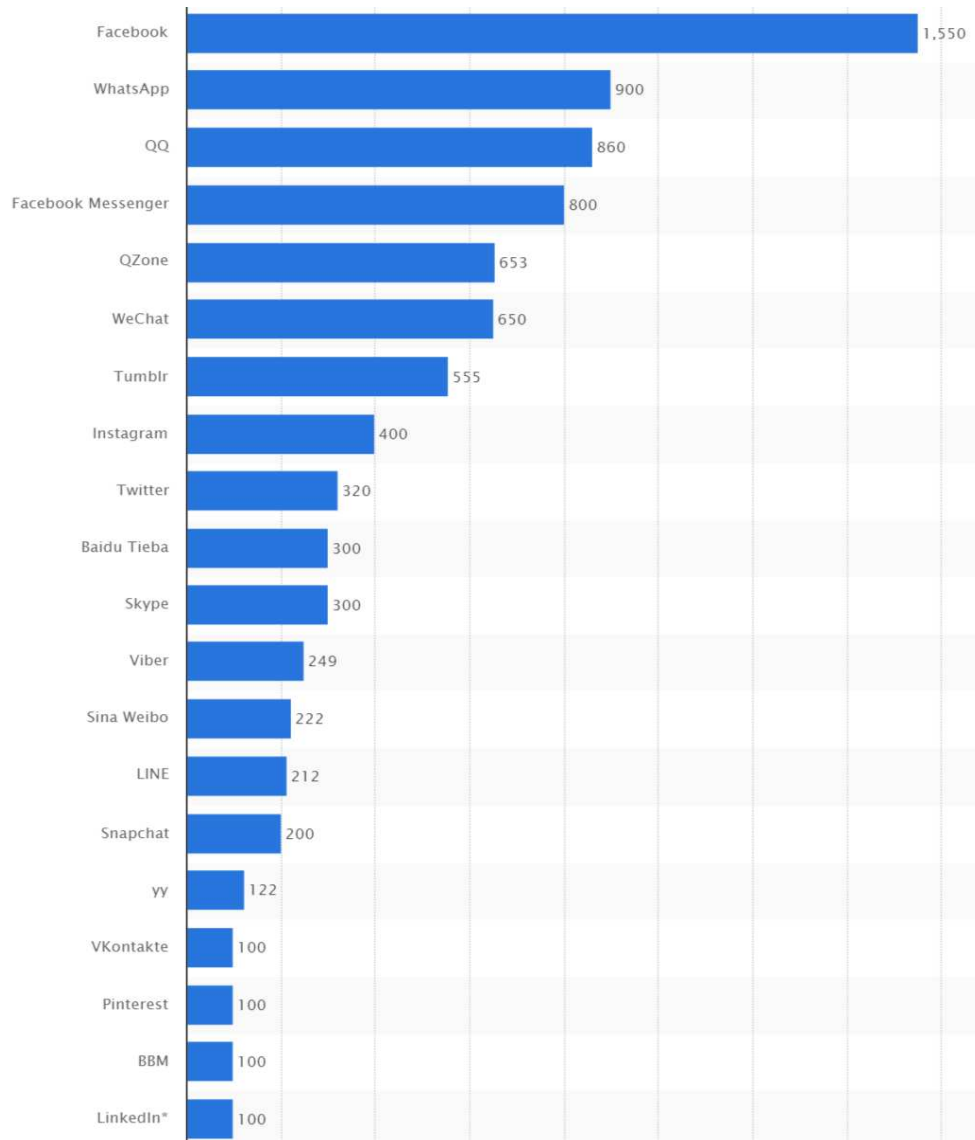


Figure 12: Leading social networks worldwide as of January 2016, ranked by number of active users (in millions).

This statistic provides information on the most popular networks worldwide as of January 2016, ranked by number of active accounts. Market leader Facebook was the first social network to surpass 1 billion registered accounts and currently sits at 1.55 billion monthly active users.

Source: <http://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/>

The major size of such channels trivially implies that the information about a product are now able to reach far more individuals than in the past and can easily cross the geo-political bounds that often constraint newspaper, radio and television networks. Particularly, a CNN study found that around 43% of all online news sharing happen through social media and the related tools⁷⁵.

A small group of influencers – those who share at least six stories per week - is responsible for most of the propagation. The research found that 27% of frequent sharers account for the online distribution of 87% of all news stories⁷⁶.

*Viral marketing*⁷⁷ is based on this framework.

Nevertheless, it is the speed by which these platforms are able to spread news that allows a business to grow exponentially.

Rumors are able to travel fast when they are shared by individuals that know each other. In fact, a study, conducted by Ceren Budak, shows that users are more likely to trust information and share it on social media because it comes from people they are familiar with⁷⁸.

However, the speed and dynamics affecting the data spread are still not clear.

On this point, the figure 14 shows the trends of some of the most famous hashtags following the terroristic attack at Charlie Hebdo, a French satirical weekly magazine, on 7th January 2015.

⁷⁵ Indvik, L. (2010, October 7). *Social Networks Dominate Online News Distribution [STATS]*. Retrieved from Mashable.com: <http://mashable.com/2010/10/07/cnn-news-study/#aZvzwBvPAPqa>.

⁷⁶ *Ibidem*.

⁷⁷ *Viral marketing* aims to achieve marketing awareness or other marketing objectives through the use of techniques able to create self-perpetuating mechanisms analogous to the spread of a virus.

⁷⁸ Ceren Budak, D. A. (2012). *Diffusion of Information in Social Networks: Is It All Local?* Santa Barbara, USA: ICDM.

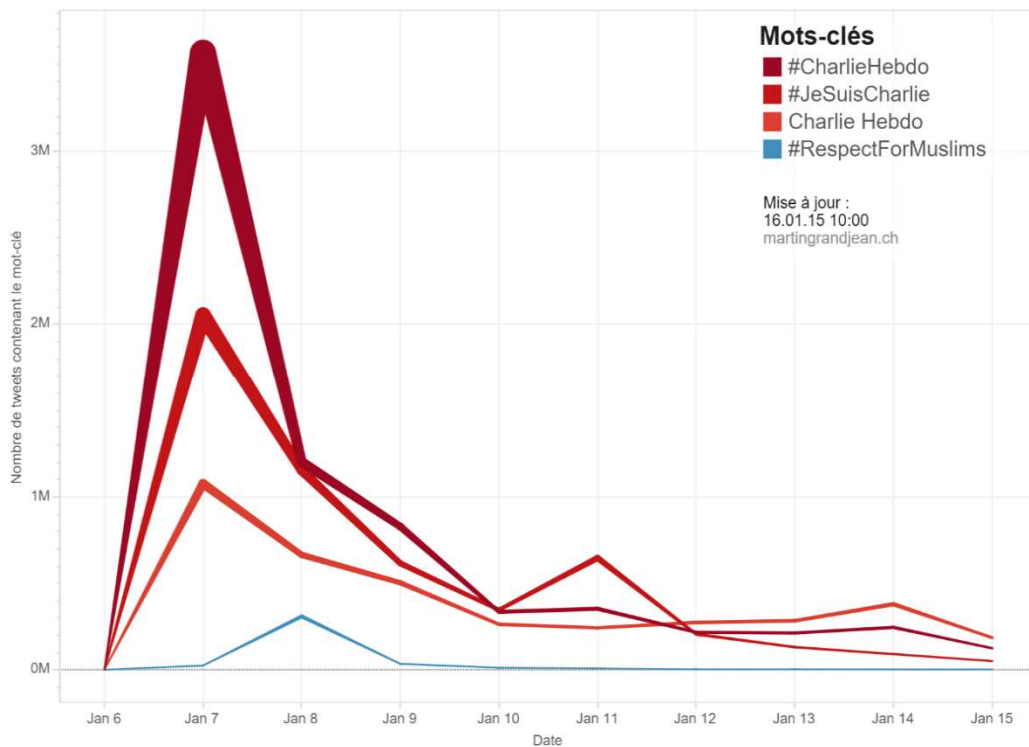


Figure 13: Charli Hebdo tweets: top-hashtags.

Source: <http://www.martingrandjean.ch/graphique-charliehebdo-jesuisccharlie/>

From the 6th January to the day after, the well-known hashtag *#CharlieHebdo* jumped from 0 to almost 4 million of tweets. The trend has a visible downstairs slope the following day.

There is an important momentum component in the propagation of rumors and growth hacking strategies that are able to use the momentum to boost the spread of ads.

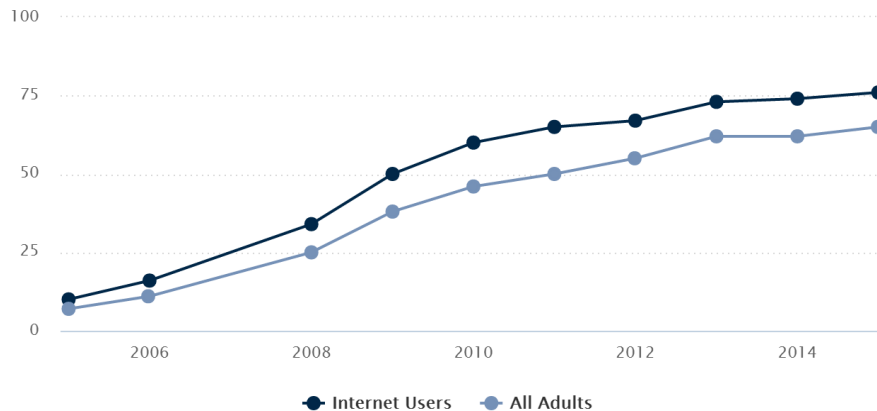
Though they present these astonishing numbers, huge internet based platforms are a recent phenomenon. The most famous social media, Facebook, was launched on February 4, 2004⁷⁹. Since then, social networks have been quickly evolving.

The Pew Research Center, a nonpartisan American think tank that provides information on social issues, public opinion, and demographic trends shaping the United

⁷⁹ Facebook Inc. (2015). *About Facebook*. Retrieved from Facebook.com: https://www.facebook.com/facebook/info/?tab=page_info.

States and the world, reports that, in 2015, 65% of American adults use social networks⁸⁰.

However, this percentage is the final result of a trend dating back to at least the 2005, the year in which the center started to collect data.

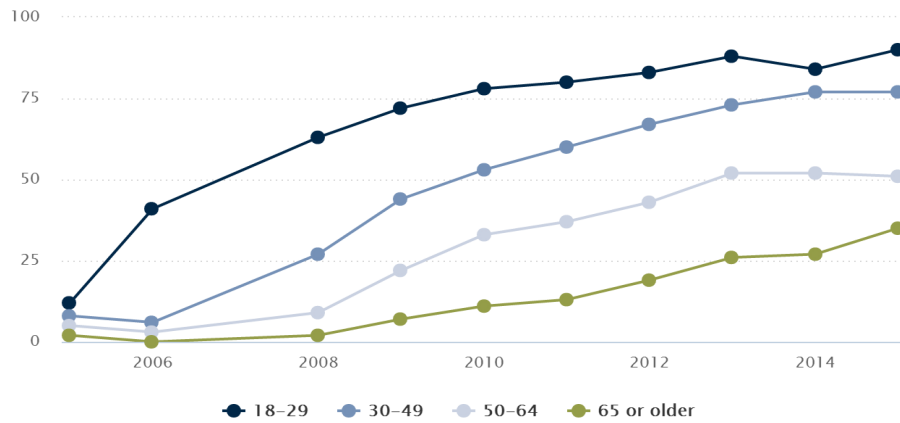


*Figure 14: Percentage of all American adults and internet-using adults who use at least one social networking site.
No data are available for 2007.
Source: Pew Research Center*

As a matter of fact, in 2005, only 7% of American adults - 10% of American internet-using adults, was active on social networks. This percentage was up to 25% in 2008 and to 46% in 2010, after which the slope drops so that the next increase was only to 55% in 2012.

Splitting social network usage by age delivers interesting results.

⁸⁰ Perrin, A. (2015, October 8). *Social Media Usage: 2005-2015*. Retrieved from Pewinternet.org: <http://www.pewinternet.org/2015/10/08/social-networking-usage-2005-2015/>.



*Figure 15: Percentage among all American adults, % who use social networking sites, by age.
No data are available for 2007.
Source: Pew Research Center*

In fact, as showed by the figure 15, there is a clear decrease of social network usage in relation to age. In 2015, the number of people operating on at least one social network is 90% in the 18 - 29 age group but only 35% of adults who are more than 65 years old. However, while the increasing trend seems to be stopping for the other age groups, a dynamic that may be due to market saturation, the curve of the 65 or older group is still upward inclined.

Further splitting the data in relation to the level of education, income or other variables would provide equally valuable insights⁸¹.

The main point is that huge internet based platforms, internet access and even digital devices (mobile or not) are differently available according to a wide set of factors ranging from the user's financial situation to her or his physical location.

While the spread of this instruments has surely widened the audience that can be reached with the common growth hacking tools, the degree of coverage may still be an important issue in expanding a target market.

However, the data driven mindset behind growth hacking should lead any modern marketer to account for this problem and use a mix of traditional marketing techniques or real word means together with the growth hacking instruments.

⁸¹ It is remind to the original work for deepening the issues. See: Perrin, A. (2015, October 8). *Social Media Usage: 2005-2015*. Cit.

2.3 The economic landscape⁸²

The shortcomings of traditional marketing and the changed technological landscape are useful in explaining the rise of growth hacking. Still, they are elements present in several regions worldwide.

Nonetheless, the Aaron Ginn quote at beginning of this chapter highlights how growth hacking took roots in Silicon Valley rather than in another USA area or in Europe or in Asia.

Then, there must be some variable that makes the Silicon Valley environment unique.

2.3.1 *Technical skills*

“Silicon Valley is a leading hub and startup ecosystem for high-tech innovation”⁸³.

The zone has a rare amount of technical capabilities and expertise that is absent in many other regions.

⁸³ *Silicon Valley*. (2015). Retrieved from Wikipedia.org: https://en.wikipedia.org/wiki/Silicon_Valley.

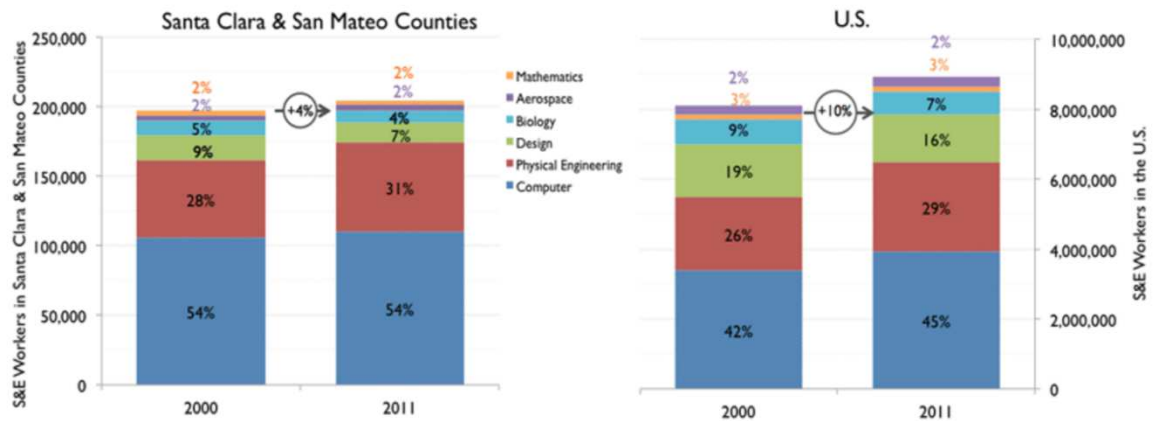


Figure 16: Science and Engineering Talent by Category.

The S&E category is comprised of workers in the following occupations: Computer, Physical Engineers, Design, Biological, Mathematics, and Aerospace Engineers & Scientists. Design includes Designers and Artists & Related Workers. Both were added to the S&E occupations to try to capture the employment in Graphic Designers and Multi-Media Artists & Animators. According to the U.S. Bureau of Labor Statistics Occupation Employment Statistics (May 2009), both occupations represent almost 60 percent of employment in both Designers and Artists & Related Workers.

Source: U.S. Census Bureau, 2000 Decennial PUMS, 2011 American Community Survey

As pointed out in the figure 16, in 2011, in Santa Clara and San Mateo Counties – Silicon Valley includes parts or most of Santa Clara County, San Mateo County, and Alameda County - there were more than 200,000 workers with science and engineering skills, mainly in the computer and physical engineering fields. Furthermore, the allocation of these workers is quite different from the United States distribution with a predominant orientation towards computer – 54% vs 45%.

This data is even more significant when compared to the total work force. In a 2013 Forbes article, Joel Kotkin points out that “the Valley’s ratio of 45 engineers per 1,000 employees is twice as high as any other big metro area” which is a factor that the author considers “the Valley’s key asset” and “has made it by most measurements the nation’s most affluent metro area”.⁸⁴

Regarding innovation, the area of San Francisco and Silicon Valley produces more patents in the U.S.A. than in any other zone. It accounts for 15% of all the American patents in 2014.

⁸⁴ Kotkin, J. (2013, July 31). *America's Engineering Hubs: the Cities with the Greatest Capacity for Innovation*. Retrieved from Forbes.com: <http://www.forbes.com/sites/joelkotkin/2013/07/31/americas-engineering-centers/#7a0586201e2f>.

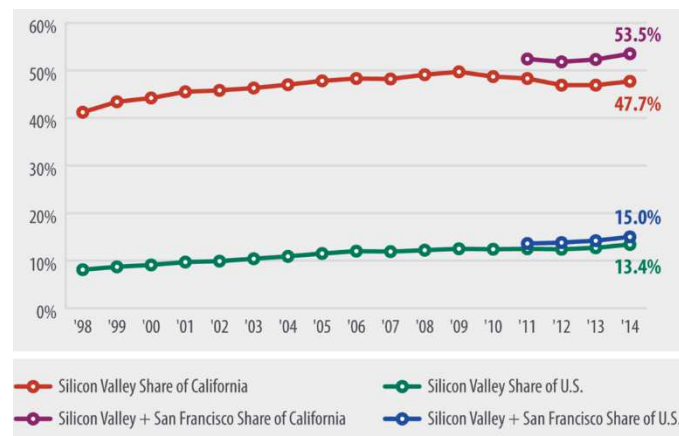


Figure 17: Silicon Valley and San Francisco Percentage of U.S. and California Patents. Geographic designation is given by the location of the first inventor named on the patent application. Silicon Valley patents include only those filed by residents of Silicon Valley. Source: U.S. Patent and Trademark Office and California Department of Finance

In 2014, the Silicon Valley number of patents granted per 100,000 people was 655 with a rise of 37.6% on the 2011 number of 476⁸⁵. In the same year, the overall USA patent applications were 285,096 which, considering it has a population of 318.86 million, implies a far lower rate of 84.91 patent per 100,000 people⁸⁶.

The number of technical workers and patents produced are important indicators of the skills and innovation available in a specific region. Such talents are required by the highly technical strategies and tools implied in growth hacking. SEO, landing pages⁸⁷, conversion rate optimization⁸⁸, marketing automation, product development and even a trivial website are all instances of cases which need a set of experts that may

⁸⁵ Siliconvalleyindicators. (2015). *Patent Registrations*. Retrieved from Siliconvalleyindicators.org: <http://siliconvalleyindicators.org/data/economy/innovation-entrepreneurship/patent-registrations/>.

⁸⁶ World Intellectual Property Organization. (2015). *Statistical Country Profiles: United States of America*. Retrieved from Wipo.int: http://www.wipo.int/ipstats/en/statistics/country_profile/profile.jsp?code=US.

⁸⁷ *Landing Pages*: is a web page that appears in response to clicking on an ad, a link or a search engine result. It aims either to convert the visitor in a lead by asking him for the email address or other contact information or to make the visitor straightly buy the product/service. Landing pages must be optimized to gain high conversion rates.

⁸⁸ *Conversion rate optimization*: is the optimization of a conversion rate, the rate of the user that perform a desired action over the total beginning cohort. For instance, the number of users that pay for an app subscription over the total number of users that have downloaded the app.

not be easily accessible. The famous Airbnb case is itself a proof of the importance of capable programmers.

Growth hacking could only exist in an area full of such competences.

Nevertheless, the startup ecosystem is the main reason behind the growth hacking rise in the Silicon Valley. The above mentioned skills, even if rare in such abundance, can still be found elsewhere in the world. What is really unique about the Silicon Valley is its economic landscape filled both with entrepreneurship and venture capitalism.

2.3.2 *Startup ecosystem*

While the link between the technical skills and growth hacking is quite trivial, it is more complicated in relation to startups.

The concept of startup lacks a univocal definition. Then, any explanation firstly needs a well-clarified meaning of the word.

Small Business Administration (SBA), the USA agency in charge of providing support to entrepreneurs and small businesses, in a 2007 paper describes as a start-up as “those individuals who have been in business up to 12 months”⁸⁹ while in another part stating that “the word “startup” goes beyond a company just getting off the ground. The term startup is also associated with a business that is typically technology oriented and has high growth potential. Startups have some unique struggles, especially in with regards to financing. That’s because investors are looking for the highest potential return on their investment, while balancing the associated risks.”⁹⁰

Then, the SBA common features of startup appear to be a group of people beginning a business, typically technology oriented, with high growth potential but also characterized by unique struggles and high risk.

⁸⁹ (SBA), U. S. (2007). *SBA Client Definitions and Reporting Instructions FY2007*. USA Small Business Administration (SBA).

⁹⁰ Small Business Administration. (n.d.). *Startups & High Growth Businesses*. Retrieved from Sba.gov: <https://www.sba.gov/content/startups-high-growth-businesses>.

Eric Ries seems to confirm this idea in the growth hacking mindset. In his book *The Lean Startup*, a startup is defined as a “human institution designed to create a new product or service under conditions of extreme uncertainty”⁹¹.

Thus, the uncertainty is the main element. Nobody would define a new restaurant as a startup even if it is a business started fewer than twelve months ago. It would be different if the “restaurant” is a new virtual application through which it is possible to order food online⁹².

The uncertainty makes the startup risky. Even if the prototype of a product looks good it may fail to reach a market, to have customers, or even to be finished and ready. This uncertainty is related to the basic components of the business plan: the product/service, the market and business model itself.

The growth hacking approach to company activities leads to a reduction of this uncertainty⁹³. Through the use of the minimum viable product and scalable experiments, growth hacking enables for a decrease of costs and the progressive acquisition of valuable knowledge about the business model, the market and the product/service.

Growth hacking is basically a mean to better manage the ambiguity of a rising company. Already established companies in mature markets do not face a high level of uncertainty; they have tested business models, reliable products and clear markets.

This kind of uncertainty is present in startups and rapidly evolving sectors like computers, software, pharmaceuticals and any other field affected by the need for disruptive innovation.

Furthermore, the same growth hacking approach to company activities that implies the merge of marketing and product development is ill-suited for the traditional hierarchical company within a well-defined structure. Established companies usually have specific marketing functions, a strict separation of roles and internal processes that

⁹¹ Ries, E. (2011). *The Lean Startup*. Cit. P. 27.

⁹² See, for instance, Foodpanda and Just Eat, online services acting as a web based intermediary between independent takeaway food outlets and customers.

⁹³ For a deeper analysis, see pp. 4-9.

do not encourage the flow of knowledge. Whether a marketer understands that the merchandise is lacking something important or has a defect, she or he has few means to share this important information and actively push for the modification of the product.

Startups lack a marked hierarchy. On the contrary, they are fluid. It is possible to see managers, marketers, designers, programmers and engineers all at the same table, sometimes even in one person. This is the kind of organization that exists in growth hacking: a multitude of different perspectives where the product, the website and other company assets are seen as something malleable that can be changed in response to customer feedback or further data.

Then, while the lack of uncertainty and the hierarchical organization of many huge companies in mature sectors struggle with the traditional marketing flaws, the startup's high risks and their fluidity is well-suited for the growth hacking integration of marketing and product development.

Their overall Product part of marketing mix is better shaped using a growth hacking framework.

Additionally, the traditional marketing defects on the Promotion part are even more problematic in the case of startups.

As Ryan Holiday underlines in the article *Everything Is Marketing: How Growth Hackers Redefine the Game*, startups are "averse to traditional marketing for two reasons:

- 1 they don't have the money;
- 2 they don't have the experience.”⁹⁴

Startups usually face really tight financial constraints, especially if they are bootstrapping.⁹⁵ As showed in the first paragraph⁹⁶, advertising on radio, television,

⁹⁴ Holiday, R. (2012, December 17). *Everything Is Marketing: How Growth Hackers Redefine the Game*. Retrieved from Fast Company: <http://www.fastcompany.com/3003888/everything-marketing-how-growth-hackers-redefine-game>.

⁹⁵ *Bootstrapping*: is a way to finance a business without taking any outside funding. The company has to rely on few money and use marketing that pays for itself.

newspapers and other traditional channels implies an expenditure that is beyond the budget of most small companies while huge established firm's can afford it.

On the contrary, publicity stunts and digital marketing instruments enable free promotion.

Even when startups use paid ads, they can optimize targeting the right audience, incrementing the conversion rate, creating scalable lead generation and using the other tools provided by the technological evolution and the spread of mobile devices and internet access.

Furthermore, startups do not usually have a function filled with people graduated in Marketing or with an advertising background. They lack the kind of skills required to implement traditional marketing.

However, this may turn out to be an advantage. Professional marketers may be frozen in the traditional marketing frameworks. Startups have the compelling need to do more with less to win the market, something that requires the ability to think outside the box.

Startups have been progressively forming growth hacking because they need to manage a high degree of uncertainty, they are fluid, they lack the traditional marketing expertise and they face compelling financial constraints. While, uncertainty and budget are typical elements of weakness in traditional marketing, growth hacking, which requires fluidity and an open mind, provides the right instruments.

Silicon Valley is the origin of growth hacking because, besides the huge amount of skills and innovation, it is filled in with startups.

The availability of funds and *angel investors*⁹⁷ mixed with the presence of valuable research centers, prestigious universities such as Stanford, high tech companies and strategic government facilities, such as the NASA Ames Research Center, make

⁹⁶ See p. 12.

⁹⁷ *Angel investor*: is a wealthy individual who invests in startups, usually in exchange of equity or convertible debts.

Silicon Valley the World's leading *startup ecosystem*⁹⁸ - “the broad infrastructure of talent, knowledge, entrepreneurs, venture capital, and companies that make up a startup community”⁹⁹.

In 2014, more than the 40% of all the USA venture capital investments – almost \$15 billion - flowed towards the Silicon Valley and the near San Francisco. The trend has been increasing from the beginning of the century.

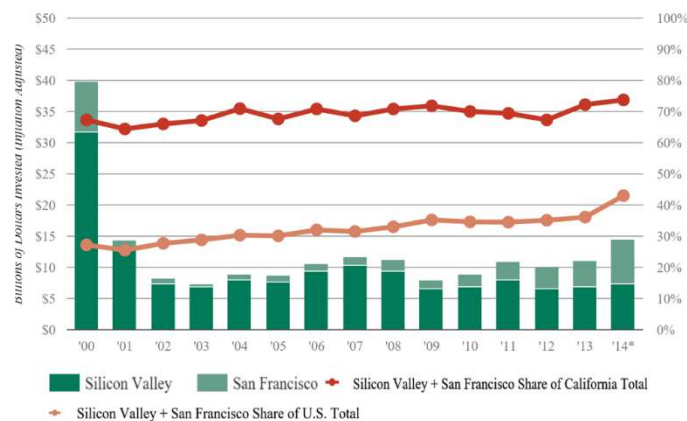


Figure 18: Venture Capital Investment

Only investments in firms located within the city-defined Silicon Valley region are included. All values have been inflation-adjusted and are reported in 2014 dollars, using the Bay Area consumer price index for all urban consumers from the Bureau of Labor Statistics, 2014 estimate for the Silicon Valley and San Francisco data, the California consumer price index for all urban consumers from the California Department of Finance May Revision Forecast (April 2014) for California data, and the U.S. city average consumer price index for all urban consumers from the Bureau of Labor Statistics for U.S. data.

*2014 data includes Q1-3.

Source: <http://siliconvalleyindicators.org/data/economy/innovation-entrepreneurship/venture-capital-investment/>

The venture capital flow is coupled with the presence of promising emerging startups.

A Financial Times research into “unicorns”¹⁰⁰ created for Atomico, a famous London-based venture capital group, shows that 52 out of 134 companies that had reached the billion-dollar mark over the period 2004 - 2014 were from the Silicon Valley area.¹⁰¹

⁹⁸ Florida, R. (015, July 27). *The World's Leading Startup Cities*. Retrieved from Citylab.com: <http://www.citylab.com/tech/2015/07/the-worlds-leading-startup-cities/399623/>.

⁹⁹ *Ibidem*.

¹⁰⁰ *Unicorns*: are fledgling tech groups that are valued at \$1bn following an initial public offering, sale or publicly-declared funding round.

However, the specific characteristics of startups do not enable for a clear distinction of these companies from other new non-startup businesses. The government and agency data, besides the mere economic sector, do not report the degree of risk or innovation implied in a new enterprise.

However, an approximation of startups numbers may be gained by looking at the *nonemployer firms*, defined by the U.S. Census Bureau as “entities with business receipts of at least \$1,000, without paid employees and subject to federal income taxes”¹⁰². These companies are businesses with no employees other than the owner(s) which is typically the case of startups.

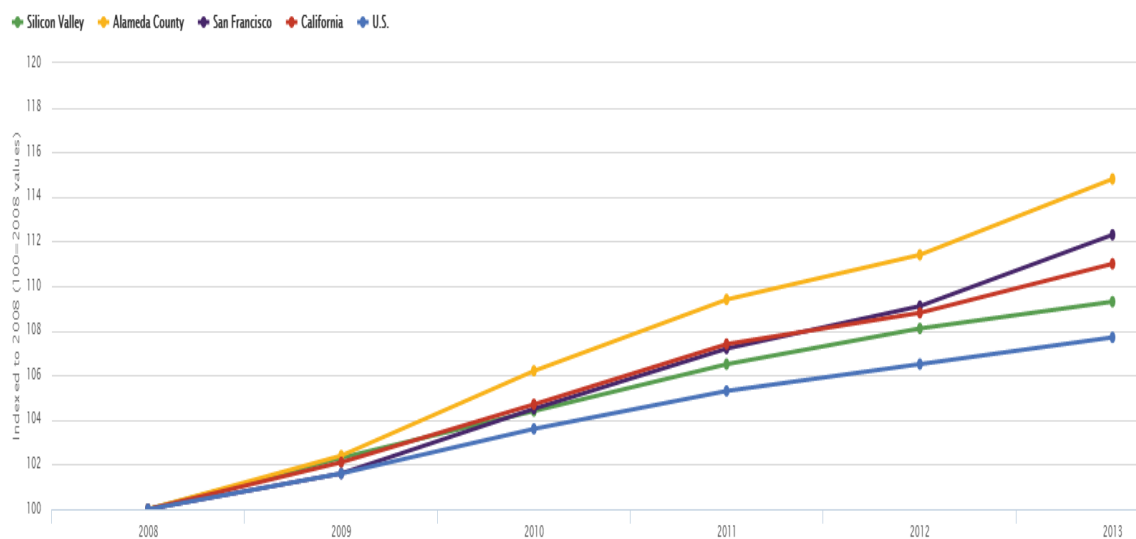


Figure 19: Relative Growth of Firms Without Employees.

Data for firms without employees are from the U.S. Census Bureau, which uses the term ‘nonemployers’. The Census defines nonemployers as a business that has no paid employees, has annual business receipts of \$1,000 or more (\$1 or more in the construction industries), and is subject to federal income taxes. Most nonemployers are self-employed individuals operating very small unincorporated businesses, which may or may not be the owner’s principal source of income. Silicon Valley data include Santa Clara and San Mateo Counties. The 2009 nonemployer data was reissued August 15, 2012.

Source: United States Census Bureau, Nonemployer Statistics

Figure 19 shows the increase in the nonemployer companies in the period 2008 – 2013 in relation to the overall amount in 2008 which is given the value of 100.

Throughout these years, Silicon Valley experienced an increase of about 9% while near San Francisco and Alameda County increased by 12% and 15% respectively- all over the U.S.A. the average is 8%.

¹⁰¹ Ahmed, M. (2014, October 26). *Big Tech Start-ups Bypass Silicon Valley*. Retrieved from Ft.com: <http://www.ft.com/intl/cms/s/0/3def41ce-5ac8-11e4-b449-00144feab7de.html#axzz3c9A66QG9>.

¹⁰² Acs, Z. J. (2009, December). *Nonemployer Start-up Puzzle*. Retrieved from Sba.gov: <https://www.sba.gov/sites/default/files/Nonemployer%20Start-up%20Puzzle.pdf>.

This data is even more impressive considering the absolute value of nonemployers. In fact, in 2013, Silicon Valley had 192,190 nonemployers while San Francisco counted 89,078 and the Alameda County 124,216¹⁰³. The total U.S. amount of nonemployers was 23,005,620.

Considering that start-up usually operate in high tech industries, nonemployer numbers may be analyzed using data about the related economic sectors to gain deeper insights about the kind of businesses they represent - whether startups or not.

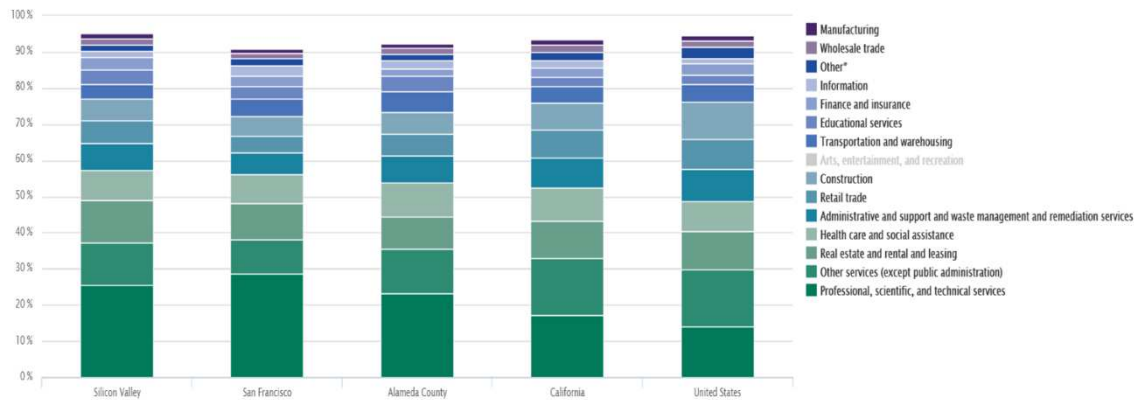


Figure 20: Percentage of Nonemployers by Industry, 2013.

Data for firms without employees are from the U.S. Census Bureau, which uses the term ‘nonemployers’. The Census defines nonemployers as a business that has no paid employees, has annual business receipts of \$1,000 or more (\$1 or more in the construction industries), and is subject to federal income taxes. Most nonemployers are self-employed individuals operating very small unincorporated businesses, which may or may not be the owner’s principal source of income. Silicon Valley data include Santa Clara and San Mateo Counties. The 2009 nonemployer data was reissued August 15, 2012.

*Other includes Accommodation & Food Services; Mining, Quarrying and Oil & Gas Extraction; Agriculture, Forestry, Fishing & Hunting; and Utilities.

Source: Silicon Valley Institute for Regional Studies.

Looking at the *professional, scientific and technical services*, figure 20 shows that Silicon Valley, San Francisco and Alameda County have a far higher percentage of nonemployers than the United States average – 25.4%, 28.6% and 23.1% vs 14.1% respectively.

Likewise, *information* has a similar dynamic with 1.8% of nonemployers in Silicon Valley, 2.9% in San Francisco and 2.2% in Alameda County, while the U.S.A. percentage is only 1.4%.

¹⁰³ Silicon Valley Institute for Regional Studies. (2014). *Relative Growth of Firms Without Employees*. Retrieved from <http://siliconvalleyindicators.org/data/economy/innovation-entrepreneurship/relative-growth-of-firms-without-employees/>, p. 2.

These fields are all related to software, computer and other high tech industries which are preferred areas of operation for startups.

Also, the *educational services* percentage of 4%, 3.2% and 4.3% for, in sequence, Silicon Valley, San Francisco and Alameda County compared with the U.S.A. average of 2.7% seems to confirm the great degree of skills and knowledge treated in the first part of this paragraph.

In conclusion, growth hacking can be explained as the response to a set of interconnected factors.

At first, there was a landscape dominated by traditional marketing and its defects.

Throughout the last two decades, scientific development coupled with the spread of better internet access and mobile devices has enabled the technical tools to form the backbone of the growth hacking data driven approach. Additionally, these instruments made even more evident the shortcomings of the previous mindset and enabled new strategies.

While these elements were present worldwide, the Silicon Valley startup hub localised a place full of the skills and innovation required to practically adopt the new set of technological means.

However, startups had a number of weaknesses such as a lack of financial resources, a lack of marketing experts and high uncertainty which constituted the main friction with traditional marketing flaws that eventually led to the spark.

Chapter III

The management of exponential growth

The first chapter has provided a first explanation of the growth hacking contributing a set of characteristic features and the main differences with the traditional marketing.

In the second chapter, there has been an analysis of the factors eventually leading to the growth hacking rise. Particularly, marketing shortcomings and technological evolution are elements present in many regions worldwide, whereas the required skills and startups are abundant in few places, above all the Silicon Valley.

This chapter analyzes theoretically the application of the growth hacking approach to a startup from the beginning through its evolution.

In fact, as already underlined, startups have characteristics that make them especially suited for. The high uncertainty, the scarcity of financial resources, the lack of bureaucracy, and an open-mindset culture make these companies different from the classical firms adopting the traditional marketing.

However, the chapter two has also showed how growth hacking changes the overall traditional marketing mix rather than only the Promotion part. Growth hacking has a complex mindset that goes beyond the pure advertising¹⁰⁴. A growth hacker must account for the company degree of development when strategizing.

Melinda Byerley, founder of TimeShareCMO, a data-driven digital marketing consultancy, highlights this point stating that “growth hacking has two phases and using

¹⁰⁴ See p. 6.

the wrong one will sink you”¹⁰⁵. What works for a company with a growing customer base does not fit for earlier-stage companies still looking for the product-market fit.

Julien Le Coupanec explains the same concept in terms of *traction/growth*¹⁰⁶. According to the Oxford Dictionary, among other meanings, *traction* can be defined as “the extent to which an idea, product, etc. gains popularity or acceptance”¹⁰⁷. Julien Le Coupanec thinks that, in the first weeks or months, a company should look for traction rather than growth.

Traction is needed to have enough customers to validate the hypotheses behind the business model. Through traction, the company can test changes, conduct experiments, gather opinions and everything is needed to refine its product. The startup has firstly to collect data to optimize. Only when the different assumptions are confirmed and the early adopters have provided positive feedbacks, the startup can seek growth.

Implementing growth hacker strategies aimed at growth before having the product/market fit implies making the behemoth of the traditional marketing flaws: advertising a defected product.

Once it reaches the product/market fit, the strategy changes. The company needs scalable channels to quickly reach a wide audience. It has to reduce the acquisition cost per new customer. It looks for way to improve the life-time value (LTV) of clients. There is a constant focus on the business model, the expenditures and the means to enlarge the user base.

“Traction seems to be a learning phase that consists of understanding the market and optimizing its product. So that growth does not kill you but enables you”¹⁰⁸.

¹⁰⁵ Byerley, M. (2015, August 11). *Growth Hacking Has Two Phases — and Using the Wrong One will Sink You*. Retrieved from Venturebeat.com: <http://venturebeat.com/2015/08/11/growth-hacking-has-two-phases-and-using-the-wrong-one-can-sink-you/>.

¹⁰⁶ Coupanec, J. L. (2015, June 15). *Growth Hacking: The 10 Key Concepts You Need to Remember*. Retrieved from Hackisition.com: <https://www.hackisition.com/growth-hacking-the-10-key-concepts-you-need-to-remember/>.

¹⁰⁷ Oxford Dictionaries. (2015). *Traction*. Retrieved from Oxforddictionaries.com: <http://www.oxforddictionaries.com/definition/english/traction>.

¹⁰⁸ Coupanec, J. L. (2015, June 15). *Growth Hacking: The 10 Key Concepts You Need to Remember*. Cit.

The landmark in assessing these two phases is the *product/market fit*.

3.1 Before product/market fit

Marc Andreessen defines the product/market fit as “being in a good market with a product that can satisfy that market”¹⁰⁹.

Product/market fit means that customers are increasingly buying the product. The company is expanding its sales staff and the overall personnel. The firm is creating and successfully delivering value. Basically, a product that achieves the market fit has virility embedded in it.

Thus, “the only thing that matters is getting to product/market fit”¹¹⁰.

Reaching the product/market fit is an iterative process rooted on repeated interactions between the corporation and the user base. The company must know the client.

However, customer, market and business model are all part of a set of hypotheses that the company must test.

3.1.1 *Starting with a set of ideas and hypotheses*

A startup starts with an idea. The idea usually concerns a specific human need and a new way to satisfy it. To rise founds, the entrepreneur has to write a seemingly feasible business plan, “a formal statement of business goals, reasons they are attainable, and plans for reaching them”¹¹¹.

However, the business plan is based on a set of assumptions covering a range of years.

¹⁰⁹ Andreessen, M. (2007, June 25). *Product/Market Fit*. Cit.

¹¹⁰ *Ibidem*.

¹¹¹ Wikipedia. (2015). *Business plan*. Retrieved from Wikipedia.org: https://en.wikipedia.org/wiki/Business_plan.

Startups are ill-suited for this approach. The innovation provided by startups and the uncertainty affecting their basic hypotheses make extremely difficult forecasting the future. The successful execution of an already written business plan may turn in a diligent way to reach the failure, i.e. efficiently creating a product that nobody wants.

Startups need to constantly learn and test the business plan. Furthermore, once it is accounted for the possibility of wrong predictions, the need for changing the strategy is evident.

Rather than making in depth market researches, a startup needs to experiment with real customers. An established company can rely on market studies, statistics and surveys because it operates in an already present market with decades of data about clients' preferences, price elasticity and so on.

The innovation brought by startups usually imply a new market or anyway a novel way to serve an existing one. Startups cannot completely lean on traditional market researches because there may not be a market at all or the customers may not know what they really want and are open to pay for.

All this leads to a failure of the application of traditional management principles.

Nevertheless, the “startup success is not a consequence of good genes or being in the right place at the right time. Startup success can be engineered by following the right process, which means it can be learned, which means it can be taught. Entrepreneurship is a kind of management”¹¹².

This is the main tenet of the Lean Startup, a management framework, developed by Eric Ries, that addresses the need for a new kind of management accounting for the high degree of uncertainty implied in startups and innovative industries.

The Business Dictionary defines *entrepreneurship* as “the capacity and willingness to develop, organize and manage a business venture along with any of its risks in order to make a profit”¹¹³.

¹¹² Ries, E. (2011). *The Lean Startup*. Cit. P. 3.

¹¹³ Business Dictionary. (2015). *Entrepreneurship*. Retrieved from Businessdictionary.com: <http://www.businessdictionary.com/definition/entrepreneurship.html>.

Traditional management does not shield properly from the startups' risks. The long term planning is not appropriate for rapidly changing economic sectors where the progress is shaped by disruptive innovation. Furthermore, drafting a business plan requires a knowledge of the market and other factors that only partially can be drawn from the theoretical analysis.

Thus, the Lean Start is a framework for empirically learning and adapting the strategy to the emerging information. This is exactly the new approach introduced by growth hacking.

Startups begin with a set of ideas and hypothesis. What they need is a way to continuously validate such assumptions and accordingly improve their ideas.

3.1.2 *The Minimum Viable Product*

As viewed in the chapter one¹¹⁴, a minimum viable product (MVP) is a product which a startup can release in the market to start scanning the hypotheses behind its business plan.

The product needs to have enough features for assessing the few fundamental assumptions. However, any extra feature is a waste.

Firstly, it may turn that a beginning hypothesis is false and, then, the product fails to attract customers. The company has wasted more resources than needed to learn the same sad truth.

Furthermore, a MVP with many attributes can restrict the firm ability to understand which characteristic is delivering value and which one is only a waste. The Lean Manufacturing, developed by Taiichi Ohno, clearly addresses this issue explaining that every firm activity should be broken down into its parts to analyze each one in term of value and waste¹¹⁵.

Overdesigning a product, also, leads to postpone the first launch because of the development and quality assurance activities' longer time, among other factors. Thus, a

¹¹⁴ See p. 8.

¹¹⁵ Ohno, T. (1988). *Toyota Production System: Beyond Large-Scale Production (English translation ed.)*. Portland: Productivity Press.

firm delays its ability to learn with all the related problems, for instance loss of competitive advantage, market share and costs.

Lastly, the MVPs are targeted to a set of customers known as *early adopters*. An early adopter is “an individual or business who uses a new product or technology before others”¹¹⁶. Early adopters are people inclined to experimenting and testing fresh things. Thus, they are likely to pay a premium in comparison to mainstream customers and this premium is related to both the higher risk implied in a slightly tested product and its higher price. Early adopters are a valuable source of revenue and feedbacks for a business. However, extra attributes are more likely to discourage them. In fact, the greater the number of features the more likelihood is that some is flawed or they are conflicting each other. Extra characteristics increase the risk implied by a new product/service.

The startup can also launch many products at the same time to separately test different assumptions. This is not a simple A/B test where there are two or more versions of the same product with just one or few different characteristics. Drawing from the Nordic School idea of goods as “transmitters of service”¹¹⁷, a whole product can be seen as set of elements each responding to a particular facet of the same need. To better understand what is actually providing value, a company could experiment separately delivering the different elements/services. Thus, once gathered the feedbacks on each element, the final product would be made of only the characteristics that have been proved to be useful for the clients.

Minimum viable products are basically a way to learn. They do not need to be real prototypes. The most important conjecture in a business plan is whether the product/service is valuable which means there is someone (not necessary the direct

¹¹⁶ Investopedia. (2015). *Early Adopter*. Retrieved from Investopedia.com: <http://www.investopedia.com/terms/e/early-adopter.asp>.

¹¹⁷ Vargo, S., & Lusch, R. (2004). Evolving To a New Dominant Logic for Marketing. *Journal of Marketing* 68(1), 1-17.

user) that would pay for it. Such hypothesis often can be tested without even building a product.

For instance, the online platform Kickstarter enables people to crowdsourcing for creative projects¹¹⁸. Tech startup founders may presell their innovative products introducing them on Kickstarter. They can make a video, a slide presentation or only an essay explaining the idea and see if someone is interested in funding it. These are all types of minimum viable products able to test a fundamental proposition: the product has a market.

However, despite the emphasis of growth hackers on minimum viable product it is not always the best approach.

According to Rahul Varshneya, “you can build a complete product and still run a lean startup.

Not every product or service launched requires one to build an MVP”¹¹⁹.

Sometimes a complete product is the only choice. If a company wants to test its ability to beat completion in an existing market with a new product that overcome the competitors’ ones, it can only release the ready product.

Furthermore, the lack of extra features and the presence of bugs and defects may give “false negative”, i.e. proving customers do not like an idea even if they are disregarding a product only because it is too poorly designed. This pitfall may be even more common with mainstream customers. While early adopters are forgiving for incomplete and flawed product, the most of the audience is quite demanding.

3.1.3 *The kick-start*

Once the MVP is ready, the startup needs to practically pull the first users to gain traction.

¹¹⁸ Kickstarter. (2015). *Start a project*. Retrieved from Kickstarter.com: <https://www.kickstarter.com/learn?ref=nav>.

¹¹⁹ Varshneya, R. (2015, June 09). *Why You Shouldn't Emulate Silicon Valley Companies for Startup Success*. Retrieved from Huffingtonpost.com: http://www.huffingtonpost.com/rahul-varshneya/why-you-shouldnt-emulate-silicon-valley-companies_b_7540910.html.

However, in this phase, startups should avoid promoting channels that can immediately scale out of control¹²⁰. The product still has to be tested and refined. “Nothing kills a bad company faster than good marketing”¹²¹,

Furthermore, while the old mindset is focused on attracting the attention of everyone, the growth hackers are mostly concerned with getting the attention of people that can become customers (leads). The focus is on attracting early adopters.

Early adopters are important because although being forgiving about the product defects, they are more likely to provide opinions to the company. Additionally, early adopters tend to become sponsors of good products, i.e. they spend their social capital actively promoting it.

Still, gaining traction is a task that usually cannot be accomplished spending large budget. Startups have strict financial constraints. Anyway, digital marketing can provide viable paths. There are several strategies available, some examples have been already provided in the previous chapters.

The company may use paid media marketing such as Google Adwords, Facebook Advertising, Reddit Advertising and Linkeding Advertising. They allow to startups to keep under control their budget while grasping the attention of the first users with a small investment. Pay-per-click campaigns are generally useful to gain traction.

A company can also organize a *pre-launch page* before even building the mvp. The page explains the product and starts to promote it. It may also be used to start collecting orders or build a list of potential users, with emails and other information, which can be contacted later. Actually, it may be a mvp itself.

Content marketing also provides a viable path. However, it should be targeted to the platforms used by early adopters and avoid large mainstream channels. For example, the startup founders can write articles or posts for blogs and forums related to their product sector.

¹²⁰ McKeown, S. (2015, May 15). *15 Early Traction Growth Hacking Strategies For Startups*. Retrieved from Gleam.io: <https://blog.gleam.io/traction/>.

¹²¹ VentureHarbour. (2015). *The Ultimate Startup Marketing Strategy*. Retrieved from Ventureharbour.com: <https://www.ventureharbour.com/ultimate-startup-marketing-strategy/>.

3.1.4 Learning

Once the minimum viable product is ready and the early adopters are attracted, the firm can start to gather data about the product usage.

It can use traditional surveys, calls or the usual contact centers as collecting complaints is fundamental.

However, as underlined in the second chapter, growth hacking strongly relies on digital tools that enable to track and investigate the user behavior. For instance, Olark is a live chat plugin that allows to talk in real time with the website visitors¹²².

Considering the importance of word-of-mouth in growing a low budget business, a startup usually should focus on improving the Net Promoter Score (NPS) which is the leading indicator for measuring a user's likelihood to recommend the product or service¹²³.

Learning imply having the correct metrics. *Metrics* are “parameters or measures of quantitative assessment used for measurement, comparison or to track performance or production”¹²⁴. Gross metrics are usually biased and hide important factors. For

¹²² Olark. (2015). *About*. Retrieved from Olark.com: <https://www.olark.com/about>.

¹²³ The *Net Promoter Score (NPS)* is calculated asking to the customers how likely it is that they recommend the product to a friend or colleague. They can use 0-10 scale for answering. “Respondents are grouped as follows:

- *Promoters* (score 9-10) are loyal enthusiasts who will keep buying and refer others, fueling growth
- *Passives* (score 7-8) are satisfied but unenthusiastic customers who are vulnerable to competitive offerings.
- *Detractors* (score 0-6) are unhappy customers who can damage your brand and impede growth through negative word-of-mouth.

Subtracting the percentage of Detractors from the percentage of Promoters yields the Net Promoter Score, which can range from a low of -100 (if every customer is a Detractor) to a high of 100 (if every customer is a Promoter)”. See: Net Promoter Network. (2015). *The Net Promoter Score - Leading Growth Indicator*. Retrieved from Netpromoter.com: <https://www.netpromoter.com/know/>.

¹²⁴ Investopedia. (2015). *Metrics*. Retrieved from Investopedia.com: <http://www.investopedia.com/terms/m/metrics.asp>.

instance, an increasing number of users may not be related to the last changes made to the product, but rather to past choices.

This point is well analyzed in a famous Eric Ries's article *Vanity Metrics vs. Actionable Metrics*¹²⁵. *Vanity metrics* are those data that might be useful to impress investors or make employees feel good but are not really reliable for decision making. Examples are the hits to the company website, the number of downloads for an app, the amount of messages sent using an IM service or being the trend topic of Twitter. They may deliver a good company image but they are not able to show the cause-effect link that should lead any sound strategy.

Contrarily, actionable metrics may still have the vanity metrics "striking effects", nevertheless they are useful information for decision making.

Any company should focus on actionable metrics.

By disaggregating gross data, growth hackers can find valuable information about the customer's demographics, behavior, conversion rates and anything useful to understand how the product is performing. The way a product can appeal to determined prospectors is clearly influenced by their own characteristics as tastes, income, age, political preferences and gender.

It is particularly useful the application of the *sales funnel* concept drawn from traditional marketing. *Sales funnel* is based on the idea that firms drive customers through a buying procedure divided into different steps. The number of steps depends on the kind of business and the overall marketing approach. However, it usually starts with a large number of potential customers and ends with a much narrow segment of loyal clients.

The figure 21 offers a typical configuration of a sales funnel – specifically with four sell steps.

¹²⁵ Ries, E. (2009, May 19). *Vanity Metrics vs. Actionable Metrics*. Retrieved from Fourhourworkweek.com: <http://fourhourworkweek.com/2009/05/19/vanity-metrics-vs-actionable-metrics/>.



Figure 21: Sales funnel

Source: <http://buyfactors.com/wp-content/uploads/2014/02/sales-funnel-02.jpg>

Growth hacking applies digital marketing to the sales funnel measuring specific metrics for each designed step. Matching these metrics with *Cohort analysis*¹²⁶ provides valuable data about the product and the effectiveness of some changes.

For instance, rather than measuring the overall user base increase, a tech startup concerned with the growth of its internet based app, can assess the weekly number of downloads. This gross data can be split according to the specific sells funnel steps:

- the number of users that download the app but do not register;
- the number of users that register but do not log in;
- the number of users that log in but use the app once;
- the number of users that use the app different times but do not pay;
- the number of users that pay for the upgrade at premium account.

Looking at this data, the company can understand where it should improve. Additionally, it can assess the impact of any change tracking the evolution of these metrics through different weeks. In fact, the cohort analysis can shield from the legacy problem of gross numbers where trends may be related to past choices rather than current actions.

Once they have chosen the right metrics, companies can better learn about the worthiness of a new product feature using *A/B tests* which means releasing two or more versions of a product (“version A”, “version B”, “version C”, etc.) and look at the data to understand which performs better.

On this point, startups should be aware of the value due to the interaction of different features in experimenting and assessing data. Something that may be

¹²⁶ *Cohort analysis* break data about the total users/clients into groups arranged accordingly to specified characteristics ranging from time periods to personal features.

considered worthless alone may have an import impact on the customer experience when matched with other elements.

Then, the growth hacking learning is not only matter of right minimum viable product, tools to collect data and other technical instruments. It is mostly about looking at the right metrics. Specifically, according to Enric Ries, the company metrics should be:

1 actionable: they must demonstrate clear cause-effect relationships;

2 accessible: reports must be clear and simple to and accessible from everyone inside the organization;

3 auditable: the data must be credible to employees who should be able to analyze and test both if they mutually consistent and if they are true. Even better whether the data can be tested with real customer as using interviews. Thus, employees can also earn insights about why the customers are behaving that way¹²⁷.

3.1.5 *Rebuilding*

The Startup discoveries about the customers are the inputs for improving the product.

A Startup can be fundamentally viewed as a mean to convert an idea into something material. Testing the basic hypotheses leads to a refinement of the overall idea that, in turn, should be translated into building a better product.

However, this process is not a one-sequence approach. It is iterative. A firm can always discover something valuable about the market that should guide to practical changes in the overall business.

The Lean Startup model has at its core the *build-measure-learn feedback loop*.

¹²⁷ Ries, E. (2011). *The Lean Startup*, pp. 75 – 78. Cit.

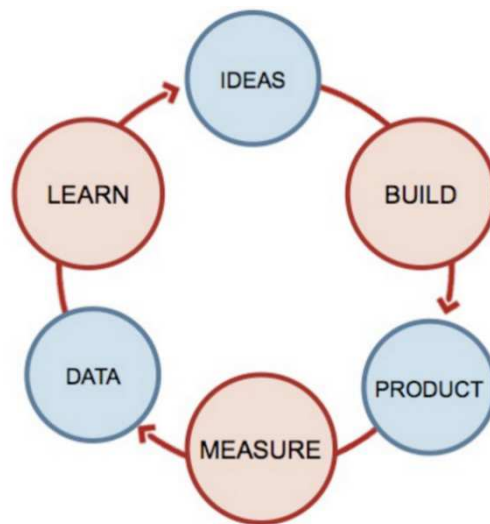


Figure 22: Build-Measure-Learn Feedback Loop

Source: <http://www.leanblog.org/2010/01/notes-on-a-talk-by-eric-ries-on-lean-startups/>

This approach is based on the concept of *validated learning*: “a process in which one learns by trying out an initial idea and then measuring it to validate the effect. Each test of an idea is a single iteration in a larger process of many iterations whereby something is learnt and then applied to succeeding tests”¹²⁸.

Thus, the starting point is a new hypothesis. Then, either the firm builds the minimum viable product or modified it accordingly in the case of successive iterations. Once, the product is changed, it is released in the market. Thus, the company can collect data about the customers’ reactions. This data must be analyzed in accordance with actionable metrics.

The firm can learn from this analysis and repeat the process over and over again in a loop of continuous improvement.

However, even if the loop is Build-Measure-Learn its planning works in the reverse order. The company should start thinking about what it needs to learn. Then, it has to set the actionable metrics that can properly track the linked customer’s reactions. Lastly, the engineers should develop a product that can be used to elicit these customer’s behaviors.

¹²⁸ Ries, E. (2011). *The Lean Startup*. Pp. 9 – 10. Cit.

The company should try to minimize the total time spent through the all loop for learning faster and faster. This is especially important if the startup has left not much runway¹²⁹.

Nonetheless, a flaw of this approach is its focus on current customers. Even using cohort analysis the firm is mostly able to assess the reactions of the users it is already attracting. However, there may be far more profitable groups of people with totally different preferences.

Eric Ries and the overall Lean Startup Movement seems to be overlooking the importance of positioning and its main pitfall: choosing a low-profit margin segment.

Once a lean startup has started to attract a specific kind of user, using the Build-Measure-Learn feedback loop it tailors its activities accordingly. Thus, the opinions from current customers will be more and more positive the most the company refines its product.

Looking at the famous Michael Porter's paper *What is strategy?*, it is straightforward stating that the startup is actually pursuing either a *need-based positioning* that is "serving most or all the needs of a particular group of customers" or a *variety-based positioning* that is "based on the choice of the product or service varieties rather than customer segments"¹³⁰. However, whether the company started serving a market segment with a low average profitability, it would modify all its structure accordingly iteration after iteration until it is practically stuck in perfectly serving a not much worth group of customers. The problem becomes even more evident considering that many startups delay the moment in which they start charging customers for part or all the service to enhance the user base growth.

This seems to be a new version of the traditional management pitfall that growth hacking and the lean startup method claim to solve: successfully executing a business plan that leads nowhere.

¹²⁹ Runway: the amount of time until a startup goes out of business, assuming the current income and expenses stay constant. Typically calculated by dividing the current cash position by the current monthly burn rate. See: Startupdefinition. (2015). Runway. Retrieved from Startupdefinition.com: <http://www.startupdefinition.com/runway>.

¹³⁰ Porter, M. E. (1996, November-December). What Is Strategy? *Harvard Business Review*, pp. 61 – 78.

3.1.6 *Innovation accounting*

The Build-Measure-Learn loop describes a potentially infinite process of refinement for the entire business.

This procedure is particularly important before the product/market fit. As Marc Andreessen underlines “lots of startups fail before product/market fit ever happens”, actually “they fail *because* they never get to product/market fit”¹³¹.

The Lean Startup model addresses this issue through the *Innovation Accounting* which enables startups to prove objectively that they are learning how to grow a sustainable business”¹³².

As the Innovation Account framework is built on the Build-Measure-Learn Feedback Loop, it is made of three milestones.

Firstly, a startup builds the MVP to establish where it is right now - the baseline. Clearly, the company should start testing the riskiest assumption to optimize. Otherwise, it could have validated less important expectations only to later discover that the adopted business model has some major flaw.

After, it should refine the product and its activities adopting the Build-Measure-Learn loop. The company should be able to move from the baseline to the ideal which is the hoped situation prospecting since the beginning of the process.

Lastly, the company faces a decision point. Actually, it may have different decision points through all the process of tuning set up by the learning loop. At each point, it can persevere if it is making progress towards the ideal. Otherwise, it can *pivot*.

Eric Ries defines a *pivot* as “a new structured course of correction designed to test a new fundamental hypothesis about the product, strategy, and engine of growth”¹³³.

If the company pivots the process starts all over again. The company may change its customer target or widening it. It may implement a major transformation to

¹³¹ Andreessen, M. (2007, June 25). *Product/Market Fit*. Cit.

¹³² Ries, E. (2011). *The Lean Startup*. P. 116. Cit.

¹³³ Ries, E. (2011). *The Lean Startup*. P. 149. Cit.

the product serving a new need or the same one in a different way. It may also modify the way to profit. There are several kinds of possible pivot.

The sign of a successful pivot is that engine-tuning activities are more productive after the pivot than before. Once the company has implemented the major change - pivoted, it should be able to reach better improvements in its metrics because, now, it is refining a product that the current customers are really interested in.

However, a company does not have to throw away everything when pivoting. Most of pivots are about arranging already existing assets in a new more valuable way.

A famous instance on this point is Instagram. Instagram is an online service that enables its users to take pictures and videos, and share them either publicly or privately on the app, as well as through a variety of other social networking platforms, such as Facebook, Twitter and Tumblr. However, Instagram was born as a location-based HTML5 app “Burbn” that let users check in at particular locations, make plans for future check-ins, earn points for hanging out with friends, and post pictures of the meet-ups.

During its first month, Burbn was only earning a modest number of users. As one of its founders, Systrom, pointed out, there were "a jumble of features that made it confusing"¹³⁴. Then after keeping tweaking the app for a while, the Burbn founders adopted analytics to determine how, exactly, their customers were using Burbn. They found out that users weren't using Burbn's check-in features at all. They were using the app's photo-sharing features. Thus, they decided to discharge most features and focus only on the photo and video elements.

Relaunched in 2010 with the current name, Instragram quickly went viral.

3.2 After Product/Market Fit

¹³⁴ Garber, M. (2014, July 2). *Instagram Was First Called 'Burbn'*. Retrieved from Theatlantic.com: <http://www.theatlantic.com/technology/archive/2014/07/instagram-used-to-be-called-brbn/373815/>.

The improvement cycle embodied in the build-measure-learn loop can always bring positive results and should be run to stay ahead of the competition.

However, once the company has reached the product/market fit, it can start growing exponentially.

Marketing is, now, embedded in the product and it has all the right characteristics to start spreading.

3.2.1 *Engines of growth*

The startups do not need to build a “brand”, they need to build an “army of immensely loyal and passionate customers”¹³⁵. The second is easy to track, define and grow. It is real. The former is just an idea.

The Lean Startup is based on the concept of *engine of growth* that is “the mechanism that startups use to achieve sustainable growth” where *sustainable growth* means that “new customers come from the actions of past customers”¹³⁶.

The growth is self-sustaining when no external resources or one-time solutions are needed.

According to Eric Ries, there are three types of engine of growth: the sticky engine of growth, the viral engine of growth and the paid engine of growth. Each of them requires a different set of metrics and strategies¹³⁷.

The *sticky engine of growth*: is rooted on the importance of customers’ retention.

The company should focus on the churn rate and the acquisition rate.

The *churn rate*, also known as *attrition rate*, refers to the number of customers that abandon the company over the total number of customers in a given time. A high churn rate is often symptom of something wrong about the company that should be quickly investigated.

¹³⁵ Holiday, R. (2014). *Growth Hacker Marketing*. P. 28. Cit.

¹³⁶ Ries, E. (2011). *The Lean Startup*. P. 207. Cit.

¹³⁷ Ries, E. (2011). *The Lean Startup*. Pp. 206-223. Cit.

The *acquisition rate* is the number of new customers over the total number of customers in a given period.

The speed of the company growth is given by the *compounding growth rate* that is the acquisition rate less the attrition rate.

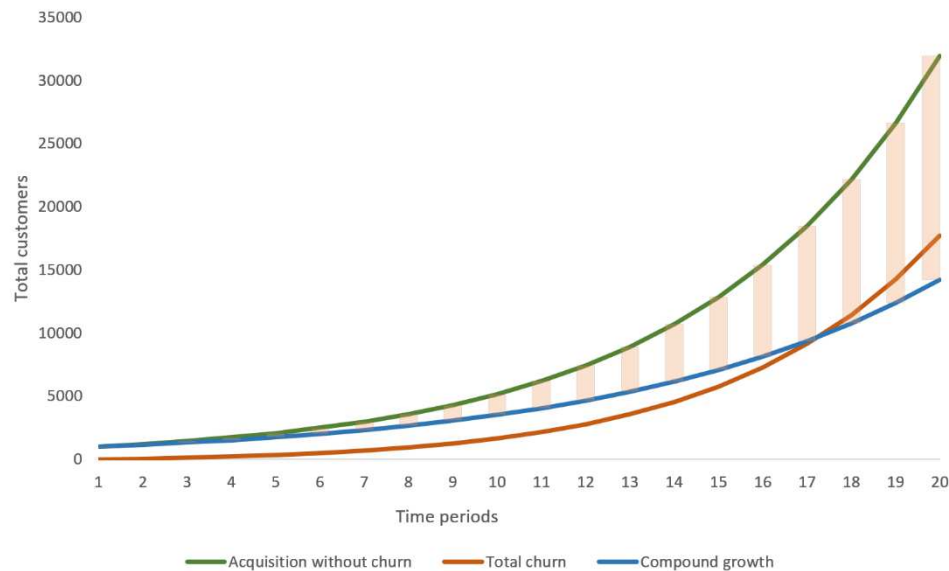


Figure 23: Acquisition rate and churn rate.

This figure is based on the following hypotheses: the beginning user base is 1000, the churn rate is 5% and the acquisition rate is 20%.

Source: made by the writer

The figure 23 well highlights the importance of the churn rate. In fact, even a small churn rate of 5% has a disastrous impact on the growth of the company. In the period 17, the total number of users lost overcome the total number of current users.

Customer retention is fundamental and, as reported in the chapter two¹³⁸, traditional marketing is usually more focus on the acquisition than on the retention even if acquiring a new customer is usually far less profitable than retaining an old one.

Modern companies can employ digital channels to design different levels of customer engagement. There may be one-time customers, customers with special privileges, premium customers and so on. Growth hackers usually analyze conversion rates from each category to understand the company ability in making the current customers increasingly loyal.

Strategies that foster engagement are fundamental.

¹³⁸ See p. 34.

For instance, Pinterest made use of ‘infinite’ scrolling to keep its users hooked on the platform. Thus, it enhanced the customer experience removing the loading times, the efforts and the other pains brought by the need to browse through web pages¹³⁹.

Anyway, besides the product features, a company can engage users building a community through social media. Facebook pages, chatting, Twitter or Instagram followers, videos or messages sharing, YouTube channels are all useful means. The customer must be kept updated and involved.

However, social media marketing has the downfall to rely on external channels. This exposes the firm to the risk that the management of the channel changes its policy. Facebook has been repeatedly modifying its policy about likes and page visibility¹⁴⁰.

A company should always use owned traffic too. *Owned media* is any web property that the firm controls and is unique to its brand such as websites, blogs and apps. A marketer has a complete control on this kind of channels.

The *viral engine of growth* is based on the quick spread of a product/service. Virility is enhanced by the word-of-mouth but mostly happen as a side effect of the normal product usage, as in the Hotmail case¹⁴¹.

As Ryan Holiday points out: “virality at its core is asking someone to spend their social capital recommending or linking or posting about you for free”¹⁴². A product should not be only worth spreading but also able to provoke a desire in people to spread it.

The viral engine of growth is based on a feedback loop called viral loop. The right metric is the *viral coefficient* (*K-factor*) that denotes the number of additional clients gained for each new customer.

¹³⁹ Minchin, A. (2014, May 28). *20 Awesome Growth Hacking Examples – What Do They Have in Common?* Retrieved from Zestdigital.com: <http://www.zestdigital.com/20-awesome-growth-hacking-examples/>.

¹⁴⁰ See, for instance: Kumparak, G. (2015, March 5). *If You Run a Facebook Page, Expect the Like Count to Drop Soon*. Retrieved from Techcrunch.com: <http://techcrunch.com/2015/03/05/disappearing-thumb-trick/>.

¹⁴¹ See pp. 4-5.

¹⁴² Holiday, R. (2014). *Growth Hacker Marketing*. P. 32 – 33. Cit.

The growth is viral when the K-factor is higher than 1.

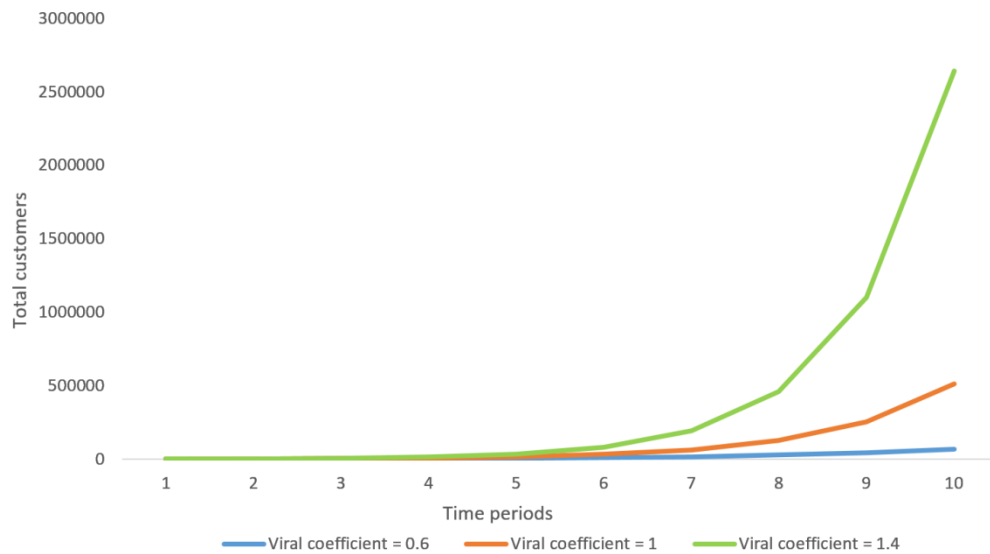


Figure 24: Viral coefficient.

This figure is based on the following hypothesis: the beginning user base is 1000.

Source: made by the writer

The figure 24 shows the impressive difference between a viral coefficient of 1.4 and a viral coefficient of 0.6. This data are even more meaningful thinking at them in absolute numbers. In fact, a viral coefficient of 1.4 simply means that every 100 customers bring 14 new customers while they bring only 6 new customers with a viral coefficient of 0.6.

To keep the viral coefficient high, many companies do not charge the customers directly but rely on indirect source of revenue as advertising. Social networks are a typical example.

As explained in the second chapter¹⁴³, virality can leverage on existing platforms. Growth hackers can use a thoughtful integration with a big platform like Facebook, eBay or Twitter to make full use of people networks to their advantage. For instance, Spotify, a Swedish commercial service for music streaming, podcast and video, allows to its users to post the tracks that they are listening to on Facebook, thus placing their platform in-front of a receptive audience¹⁴⁴.

Users should be enabled to share the product or related information seamlessly.

¹⁴³ See p. 34.

¹⁴⁴ Minchin, A. (2014, May 28). 20 Awesome Growth Hacking Examples – What Do They Have in Common? Cit.

A company employs a *paid engine of growth* when it spends for acquiring new customers. The company expenditure may be for advertising, public relations, sell force and any other kind of promotion.

In this case, the right metrics to track are the customer life time value and the cost of acquisition. The *customer lifetime value (LTV)* is equal to the revenue from the customer less the related variable costs over his/her lifetime.

On the other side, the *cost per acquisition (CPA)* is the total cost to acquire a new customer.

The speed of the growth is determined by the *marginal profit* that is the LTV less the CPA and represents the amount that can be invested in acquiring new customers per each customer.

Despite the widespread focus on the viral engine of growth, the paid engine of growth can be equally “viral”. This is well exemplified by the figure 25 where a beginning CPA of 40\$ compared with a LTV of 100\$ leads to a marginal profit of 60\$ that enables a paid acquisition of 1.5 (60/40 \$) customers for each client – blue line CPA1 (40,60,80,100) from period 1 to 6. This turns to be exactly a kind of K-factor and shows a clear exponential growth.

Through the time, the cost per acquisition tends to rise due to the competition. In fact, in an ideally perfect market the marginal profit is zero.

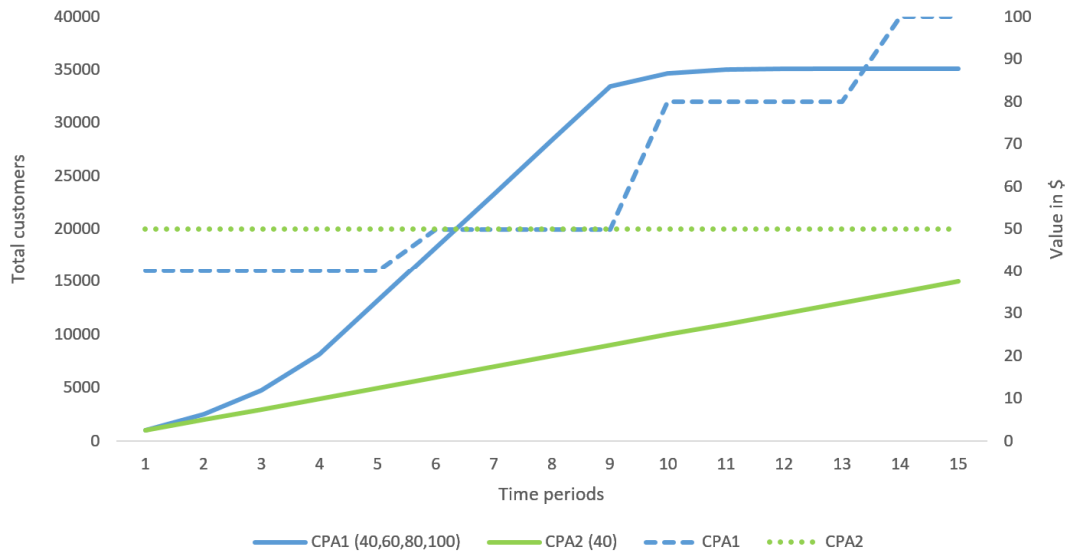


Figure 25: Viral coefficient.

This figure is based on the following hypotheses: the beginning user base is 1000 and the LTV is kept constant at \$100 throughout the period. The CPA1 changes.

Source: made by the writer

The blue line “CPA1 (40,60,80,100)” shows this trend. The CPA rises at 50\$ in the period 6, at 80\$ in the period 10 and 100\$ in the period 14 where no growth is anymore possible due to the erased marginal profit.

However, the same pattern is likely also for the other engines of growth where competitive pressures can increase the churn rate and lower the acquisition rate and the viral coefficient.

Startups can have more than one engine of growth at the same time.

Nevertheless, this kind of strategy may lead to confusion and undermine the efficiency. It is usually better focusing on one engine of growth at time and, when one is exhausted, moving to another¹⁴⁵.

Growth hackers should optimize the different engines of growth trying to make the related distribution channels frictionless as much as possible.

“An important aspect of Growth Hacking is to find a right traffic source (“distribution channel”) via which to put a new product in front of target audience and then convert them to become valuable users of the product.”¹⁴⁶

¹⁴⁵ Ries, E. (2011). *The Lean Startup*. Pp 222-223. Cit.

Growth hackers start trying out different distribution channels. Then, they discharge those that do not perform enough well and optimize the others.

The right channel depends on a set of characteristics: target customers' demographics, user's current contest, pre-existing awareness of the problem, budget and even level of control.

Additionally, despite the kick-start phase, a channel for growing the business should mostly be scalable which implies that it can reach a high percentage of the target market and per unit effort to setup and run the channel should decrease over time¹⁴⁷.

Channels should also be used to correctly educate the users. Most products fail because they are not understood from customers.

As Julien Le Coupanec points out, "one of the most common mistakes is to assume that your users understand what you are doing and that they are therefore ready to buy what you sell. And for this reason, one of the most important qualities in a growth hacker is empathy"¹⁴⁸.

Users are likely to understand the product core functionality rather quickly. However, they should be educated in taking fully advantage of its vary functionalities. This increases the perceived value of the product and makes the customer more engaged and loyal.

In this context, a particular focus should be given at the way the people can find the product. People are overexposed, there are millions of products and information nowadays.

Thus, the Search Engine Optimization (SEO) and the App Store Optimization (ASO) are prominent.

The figure 26 highlights the number of people using search engine.

¹⁴⁶ Ankit, J. (2014, December 30). *Growth Hacking and the Art of Experimenting with a Distribution Channel*. Retrieved from Medium.com: <https://medium.com/@ankitjain/growth-hacking-and-the-art-of-experimenting-with-a-distribution-channel-41071a22a35a#9or31pr7e>.

¹⁴⁷ *Ibidem*.

¹⁴⁸ Coupanec, J. L. (2015, June 15). *Growth Hacking: The 10 Key Concepts You Need to Remember*. Retrieved from Hackisition.com: <https://www.hackisition.com/growth-hacking-the-10-key-concepts-you-need-to-remember/>.

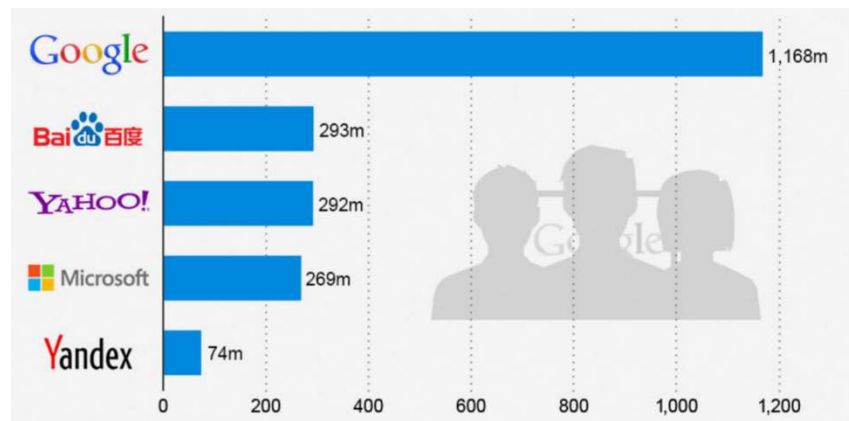


Figure 26: Worldwide number of people using the top 5 search engines in December 2012.
Source: <https://www.statista.com/chart/899/unique-users-of-search-engines-in-december-2012/>

However, the most important strength of search marketing is that the company has exactly the product that people are looking for, its website can appear at the perfect moment – when they are searching. On the contrary, promotion such as advertising on Facebook or YouTube or the traditional channels, rely on distracting the people from what they are currently doing.

3.2.2 One-time boost

Coupled with the long term sustainable growth, the startups may need to boost the customer acquisition with one-time expedients.

As in the case of kick starting a product among early adopters, this is the field of the growth tricks.

One solution is exploiting systems or platforms that others have not yet fully appreciated. These strategies capitalize on the first mover advantage.

However, exploiting a huge platform in an intended way, as in the Airbnb-Craigslist case, is temporary. Sooner or later the platform owners will fix the bug or the API break. They cannot scale on the long run¹⁴⁹.

A startup should base its growth on long term sustainable means as the engines treated above rather than on this expedients.

¹⁴⁹ Coupanec, J. L. (2015, June 15). *Growth Hacking: The 10 Key Concepts You Need to Remember*. Cit.

Content marketing can provide a valuable way to reach a wide audience. YouTube videos are viewed worldwide by billions and can be shared on websites, blogs and social networks or even sent in a chat or by email.

A smart growth hacking strategy can count on the production of content that is viral itself. A meaningful example is the Holstee manifesto, developed by the small Brooklyn-based apparel company Holstee. The manifesto is a set of fifteen short sentences encouraging people to fully live their lives and do not waste them. The manifesto video has been viewed by more than 50 million people and “although the company was founded with the aim of selling sustainably sourced consumer goods, the poster of the manifesto is now one of Holstee’s best-selling items”¹⁵⁰.

Publicity stunts can offer a way to earn free press. The core concept is doing something remarkable. Also established companies can use these instruments. For instance, in 2015, Chevrolet, an American automobile division of the American manufacturer General Motors (GM), issued a press release written entirely in emoji before publishing a decoded version a day later. The stunt was aimed at win over the younger customers. It gained a lot of publicity because bloggers and young community felt challenged in decoding the message¹⁵¹.

One-time expedients are useful but the company should be careful in choosing the right mean. Gaining publicity is itself worthless if it cannot be converted in value. Furthermore, things may go bad.

At this point, a Sarah Perez’s article *When Growth Hacking Goes Bad* on TechCrunch reports the case of Rap Genius, now Genius - an online site that allows users to provide annotations and interpretations of song lyrics, news stories, primary source documents, poetry, and other forms of text. In December 2013, Google penalized the app by removing it from its top search results because it was manipulating Google

¹⁵⁰ Khazan, O. (2011, November 17). *How the Holstee Manifesto Became the New ‘Just Do It’*. Retrieved from Washingtonpost.com: https://www.washingtonpost.com/business/on-small-business/how-the-holstee-manifesto-became-the-new-just-do-it/2011/11/17/gIQA2AYyUN_story.html.

¹⁵¹ Logan, M. (2015, June 22). *We Try to Decipher Chevy’s Bewildering Emoji Press Release*. Retrieved from Wired.com: <http://www.wired.com/2015/06/emoji-press-release/>.

search results, by offering Tweets or Facebook shares, in exchange for linking to Rap Genius with keyword rich texts¹⁵².

The Rap Genius example shows one of the pitfall of growth hacking: the stress on growth may undermine the overall quality of such growth.

While this case is related to an attempt of illegally enhancing the search engine optimization (SEO), most growth hackers simply spam risking of alienating their potential end users themselves.

“Social messaging are among the worst offenders”¹⁵³.

For instance, Path, a social networking-enabled photo sharing and messaging service for mobile devices, was involved in a dangerous spam controversy. Some of its users accused the company of sending messages to their contact list without permission. After this, Facebook blocked the Path’s “Find Friend” option for accessing the user’s Facebook friends and restricted its API for several applications¹⁵⁴.

3.2.3 *Speed of growth*

Once the one-time expedients have boost the customer acquisition and the engine of growth is running, the company needs a way to manage the growth.

This issue is behind the Lean Startup concept of *Adaptive Organization*: “one that automatically adjusts its process or performance to current conditions”¹⁵⁵.

A startup can manage its growth through a set of *speed regulators* that enable the company to slow down and solve the problems as soon as they arise. This idea is

¹⁵² Perez, S. (2014, Janaury 3). *When Growth Hacking Goes Bad*. Retrieved from Techcrunch.com: <http://techcrunch.com/2014/01/03/when-growth-hacking-goes-bad/>.

¹⁵³ *Ibidem*.

¹⁵⁴ Constine, J., & Butcher, M. (2013, May 4). *Facebook Blocks Path’s “Find Friends” Access Following Spam Controversy*. Retrieved from Techcrunch.com: <http://techcrunch.com/2013/05/04/path-blocked/>.

¹⁵⁵ Ries, E. (2011). *The Lean Startup*. P. 227. Cit.

tailored on the Japanese *andon cord* system that forces production to stop when there are quality troubles¹⁵⁶.

A company should slow down learning and production immediately to avoid far worst difficulties later. After the market/product fit, quality problems should not be tolerated anymore. While in the starting phase the company has just to run the learning loop as soon as possible, later it must care about the customer product quality perception. Mainstream customers, as already underlined, are not forgiving as early adopters and bad products can lower the overall image of the company and its ability to sell subsequently.

Thus, adaptive processes force the organization “to slow down and invest in preventing the kinds of problems that are currently wasting time. As those preventive efforts pay off, you naturally speed up again.”¹⁵⁷

The main adaptive process is the *five Whys*, developed as a systematic problem-solving tool by Taiichi Ohno¹⁵⁸. Five Whys is an investigative method that requires employees to ask themselves why five times for understanding an issue in its deep roots. Once the reasons are clear, the company can make proportional investments for each of the five level of the hierarchy. The investment should be smaller when the symptom is minor and larger when the symptom is more painful.

Thus, companies can tie investments directly to the prevention of the most problematic symptoms and, gradually, make incremental changes that ultimately end up in a systematic new way.

¹⁵⁶ “The *andon cord* is literally a cord that workers can pull – a cord they should pull – any time something in the manufacturing process goes wrong that would compromise the quality of the product or safety of the people. The line stops immediately. Everyone's attention is turned to the problem”. See: Wangsgard, T. (2010, February 12). *Pulling the Andon Cord: Lessons on Taking a Time-out*. Retrieved from Franklincovey.com: <http://franklincovey.com/blog/consultants/toddwangsgard/2010/02/12/pulling-andon-cord-lessons-timeout/>.

¹⁵⁷ Ries, E. (2011). *The Lean Startup*. P. 229. Cit.

¹⁵⁸ Ohno, T. (1988). *Toyota Production System: Beyond Large-Scale Production (English translation ed.)*. Cit.

A successful implementation of the five whys and the adaptive organization mindset requires a strong commitment. All the employees should be aware of the system. Leaders should support it and implement a culture of mutual trust and empowerment

The risk is that the five whys can be viewed as a way to find guilty people responsible for the company's problems and slow down.

Also, the introduction of the five whys should be supported by a careful management of expectations. As every prevention system, five whys implies a lost in the short run due to the required investments and the activities slowdown coupled with a greater gain in the long run.

A best practice is testing the new approach firstly on a minor issue and then, scale it cautiously to major problems as they emerge.

Five whys is a collective investigation instrument. It should be applied collegially. When a problem arise, all the employees and managers involved should meet and implement the five whys together. This is especially important to avoid that process turn into blaming the absent people.

However, besides five whys, a startup can implement other practices to be more reactive to external changes.

The Lean Manufacturing practice of *small batches* may be useful to speed the validated learning process and avoid wastes.

In fact, in many startups the development and design phases are still based on the old mindset of large batches.

Once the product manager has an idea, it talks to the designers. The design is performed as a unique process that ideally ends up with a perfect plan of how the product should look and what it should performs. Eventually, this design is sent to the developer for the technical specification.

This procedure is based on the Ford's mass production system. It exploits the functional efficiency implied in repeating the same set of activities over the time.

However, this process is flawed in many way. Firstly, developers build the technical specifications without any contact with final customers. Secondary, problems

are more likely to arise in large batches than in small batches and when they arise the work has to be sent back to the previous phase interrupting the related function. Thirdly, an error would affect the entire production rather than only a part and it may be more difficult to detect because of the correlation of many features. Lastly, there may be problems of interaction and waste of resources in handling the project from a function to another.

The claimed large batches functional efficiency does not seem enough to balance these shortcomings.

Growth Hacking implies a new management approach. Rather than applying this bureaucratic process, the production of a product can be split into the production of its single elements.

This mindset is clearly rooted in the continuous delivery framework: “a software engineering approach in which teams produce software in short cycles, ensuring that the software can be reliably released at any time. It aims at building, testing, and releasing software faster and more frequently”¹⁵⁹.

The core idea is that product managers, designers and developers should work in small teams together with customers on few product’s characteristics per time.

Thus, the company can speed up the process of learning and reduce the waste due to mistakes.

¹⁵⁹ *Continuous Delivery*. (2015). Retrieved from Wikipedia.org: https://en.wikipedia.org/wiki/Continuous_delivery.

Chapter IV

Dropbox, an empirical case

The third chapter has analyzed theoretically the application of growth hacking approach to a startup from the beginning throughout its evolution. Via the Lean Startup model, Growth hacking has become a framework able to shape the overall life of a new company.

This chapter is focused on the analysis of an empirical case.

However, as the first chapter has highlighted, the growth hacking movement has been evolving only over the last years. Sean Ellis coined the term in 2010.

Thus, even if growth hacking roots can be tracked back to the late 1990s, there is no established company that have adopted the growth hacking mindset throughout its development. Even the firms that currently employ growth hackers or claim to growth hack had only time to experience some of its aspects. The current scenario is still too young to offer instances of firms totally devoted to the new framework.

In this context, Dropbox is a unique case. It has consciously used growth hacking several times from its beginning throughout its evolution in one of the largest tech companies worldwide.

Sean Ellis was growth hacker at Dropbox indeed.

4.1 Dropbox overview

“Dropbox is a technology company that builds simple, powerful products for people and businesses”¹⁶⁰.

4.1.1 *The service*

Dropbox is a cloud storage service operated by Dropbox, Inc. that allows users to access files from multiple devices.

The user creates a special folder and any file dropped in the folder is automatically uploaded to Dropbox’s cloud-based program and made available to any other user’s device via Dropbox website or mobile apps. The user can work on files even offline. Once online, Dropbox syncs the folder and updates all the user files on all the devices¹⁶¹.

The user can create a link to share any file in Dropbox and send it by email, chat, or text message. The other people can preview and download a copy of the file even if they don’t have a Dropbox account.

The user can also create shared folders with other users. When a user edits a file in a shared folder, everyone gets the update automatically. Thus, different people can modify and work on the same files at the same time¹⁶².

The service currently supports the following operating systems (fixed or mobile): Android, BlackBerry 10, BlackBerry OS, iOS, Linux, MeeGo Harmattan, OS X, Symbian, Windows NT and Windows Phone¹⁶³.

4.1.2 *The company history*

Dropbox, Inc. was founded in 2007 by MIT students Drew Houston and Arash Ferdowsi.

¹⁶⁰ Dropbox. (2016). *About*. Retrieved from Dropbox.com: <https://www.dropbox.com/about>.

¹⁶¹ Dropbox. (2016). Retrieved from Dropbox.com: <https://www.dropbox.com/>.

¹⁶² *Ibidem*.

¹⁶³ *Dropbox (service)*. (2016). Retrieved from Wikipedia.org: https://en.wikipedia.org/wiki/TechCrunch#TechCrunch40_and_TechCrunch50.

Drew Houston developed the core idea. His speculation was moved by a practical need. Working on multiple desktops and a laptop, he could never remember to keep his USB drive with him, then he “tried everything [he] could find but each product inevitably suffered problems with Internet latency, large files, bugs, or just made [him] think too much. Nothing just worked, so [he] started hacking something together for [him]self and then realized it could solve these problems for a lot of other people”¹⁶⁴.

The company was soon funded by the startup accelerator Y Combinator and officially launched during the TechCrunch50, an annual conference held by TechCrunch, a famous online publisher of technology industry news, on September 9th 2008¹⁶⁵.

By 2008, it had raised \$7.2 million – “enough cash, given its robust economic model, to get it to its current stage”¹⁶⁶. Through the following years, it was able to raise additional funds by different venture capitalists such as Sequoia, Accel and Goldman Sachs.

Although the outbreak of the 2007 financial crisis, the company lean structure “enabled it to sail through the meltdown”¹⁶⁷. In fact, “in 2008 it had nine employees and 200,000 customers. Two and a half years later it had added five workers. Users rose tenfold”¹⁶⁸.

¹⁶⁴ Houston, D. (2009, February 5). *Meet the Team! (Part 1)*. (J. Ying, Interviewer) Retrieved from <https://blogs.dropbox.com/dropbox/2009/02/meet-the-team-part-1/>.

¹⁶⁵ Dropbox (service). (2016). Retrieved from Wikipedia.org. Cit.

¹⁶⁶ Barret, V. (2011, October 18). *Dropbox: the Inside Story of Tech's Hottest Startup*. Retrieved from Forbes.com: <http://www.forbes.com/sites/victoriabarret/2011/10/18/dropbox-the-inside-story-of-techs-hottest-startup/2/#61001d33334e>.

¹⁶⁷ Barret, V. (2011, October 18). *Dropbox: the Inside Story of Tech's Hottest Startup*. Cit.

¹⁶⁸ *Ibidem*.

Eventually, in the last funding round, in January 2014, Dropbox, Inc. collected \$350 million from BlackRock, T. Rowe Price, and Morgan Stanley among other investors. The sum implied a company valuation of over \$10 billion¹⁶⁹.

Through the years, Dropbox, Inc. has been signing many deals to quickly expand on a multitude of platforms. In 2011, it partnered with Samsung, to bring Dropbox to millions of people using Samsung devices around the World.¹⁷⁰ In 2012, Facebook integrated Dropbox for allowing people to share files to Facebook Groups using Dropbox's cloud-based storage system. Facebook did not replace the users' ability to upload files from their computer, but enabled people to upload files that they already have stored in the cloud to Groups¹⁷¹. In November 2014, Dropbox Inc. and Microsoft Corp. integrated their services across Dropbox and Microsoft Office on phones, tablets and the Web. Thus, the Dropbox and Microsoft users could start to access Dropbox from Office apps, edit Office files directly from Dropbox and sync them across devices, share new or edited files from the Office apps using the Dropbox sharing functionality¹⁷².

Along with partnerships, Dropbox, Inc. has conducted different strategic acquisitions to improve the service and added new valuable patents to its portfolio. In

¹⁶⁹ Macmillan, D. (2014, February 13). *Dropbox's New COO Has a \$350 Million War Chest*. Retrieved from Wsj.com: <http://blogs.wsj.com/digits/2014/02/13/dropboxs-new-coo-has-a-350-million-war-chest/>.

¹⁷⁰ Dropbox. (2014, September 3). *We're doing even more with Samsung*. Retrieved from Blogs.dropbox.com: <https://blogs.dropbox.com/dropbox/2014/09/dropbox-doing-even-more-with-samsung/>.

¹⁷¹ Taylor, C. (2012, September 26). *Facebook Integrates with Dropbox to Power File-Sharing within Facebook Groups*. Retrieved from Techcrunch.com: <http://techcrunch.com/2012/09/26/facebook-integrates-with-dropbox-to-power-file-sharing-within-facebook-groups/>.

¹⁷² Microsoft News Center. (2014, November 4). *Microsoft and Dropbox Announce Strategic Partnership to Give People More Freedom in How They Work*. Retrieved from News.microsoft.com: <https://news.microsoft.com/2014/11/04/microsoft-and-dropbox-announce-strategic-partnership-to-give-people-more-freedom-in-how-they-work-2/>.

fact, in 2012 the company acquired Audiogalaxy¹⁷³, a startup allowing users to store their music files and playlists in the cloud then stream them to any device. Some days later it was the turn of Snapjoy, which lets users aggregate, archive and view all of their digital photos from their cameras, phones and popular apps like Instagram and Picasa, and then view them online or via an iOS app¹⁷⁴. Another example is the 2014 acquisition of Bubbli, a 3D Photo Sharing App¹⁷⁵, and Hachpad, which enables users to collaborate and share documents¹⁷⁶.

The company has been increasing the personnel (and changing different offices) to accommodate its worldwide expansion. The service has been improved several times with the last version released on February, 9th 2016¹⁷⁷.

In 2015, Dropbox had more than 400 million of users around the world with about 1.2 billion files synced every day, 100,000 new shared folders and links every hour, and 4,000 edits every second¹⁷⁸.

By the end of the year, the company reached the 150,000 paying business customers¹⁷⁹.

¹⁷³ Perez, S. (2012, December 13). *With Audiogalaxy Acquisition, Dropbox Signals Its Cloud Music Ambitions*. Retrieved from Techcrunch.com: <http://techcrunch.com/2012/12/13/with-audiogalaxy-acquisition-dropbox-signals-its-cloud-music-ambitions/>.

¹⁷⁴ Lunden, I. (2012, December 19). *Dropbox Acquires Snapjoy And Puts Photos Into Its Focus*. Retrieved from Techcrunch.com: <http://techcrunch.com/2012/12/19/dropbox-acquires-snapjoy-and-puts-photos-into-its-focus/>.

¹⁷⁵ Sky News. (2014, May 21). *Dropbox Snaps-UP 3D Photo Sharing App Bubbli*. Retrieved from News.sky.com: <http://news.sky.com/story/1265895/dropbox-snaps-up-3d-photo-sharing-app-bubbli>.

¹⁷⁶ Billings, M. (2014, April 17). *Dropbox Acquires Startups Loom, Hackpad in Push to Expand Services*. Retrieved from Wsj.com: <http://blogs.wsj.com/venturecapital/2014/04/17/dropbox-acquires-startups-loom-hackpad-in-push-to-expand-services/>.

¹⁷⁷ Dropbox. (2016, February 2). *Dropbox release notes*. Retrieved from Dropbox.com: https://www.dropbox.com/release_notes.

¹⁷⁸ Dropbox. (2015, June 24). *400 Million Strong*. Retrieved from Blogs.dropbox.com: <https://blogs.dropbox.com/dropbox/2015/06/400-million-users/>.

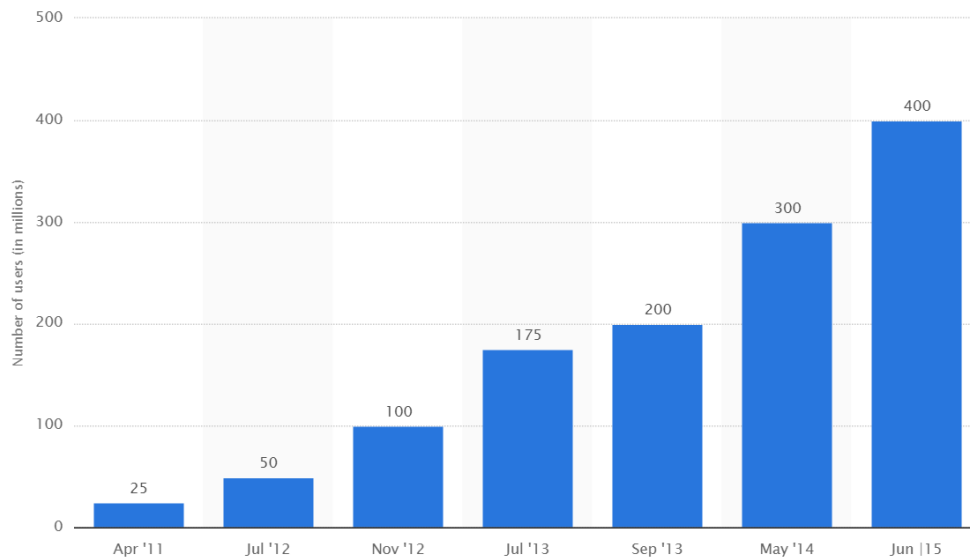


Figure 27: Number of registered Dropbox users from April 2011 to June 2015 (in millions)
Source: <http://www.statista.com/statistics/261820/number-of-registered-dropbox-users/>

4.1.3 The business model

Dropbox uses a freemium business model that is a pricing strategy by which a product or service “is provided free of charge, but money (premium) is charged for proprietary features, functionality, or virtual goods”¹⁸⁰.

Users are attracted with a free account with a set storage size. The free storage size is expandable through specific actions such as referral and sharing Dropbox on a social media.

However, paid subscriptions have more capacity and additional benefits.

Currently the application offer three kinds of offer:

- *Dropbox Basic*, free and with 2GB of space;
- *Dropbox Pro*, which costs \$9.99 per month, has 1TB (1000GB) of space, additional sharing controls and other benefits.

¹⁷⁹ Novet, J. (2015, November 4). *Dropbox Hits 150K Paying Business Customers, with 50K Joining This Year*. Retrieved from Venturebeat.com: <http://venturebeat.com/2015/11/04/dropbox-hits-150k-paying-business-customers-with-50k-joining-this-year/>.

¹⁸⁰ Hayes, T. (2008). *Jump Point: How Network Culture is Revolutionizing Business*. New York: McGraw-Hill Education. P 195.

- *Dropbox Business*, which costs \$12 per user per month, has unlimited storage, unlimited recovery, special customer assistance and file sharing controls for a better protection of intellectual property¹⁸¹.

Dropbox is private and does not disclose financials, however a 2015 Forbes's article written by Miguel Helft reports that "people close to the company say the numbers are healthy. Annual revenue is well north of the \$400 million figure that appeared in published reports", and it is growing fast¹⁸².

Particularly, Dropbox Business, launched in April 2013, signed up some 100,000 customers through the end of 2014 and alone brings in well over \$100 million annually. While the most of the Dropbox business clients are small and midsize, the number of large customers is growing rapidly¹⁸³.

These data refers to the year 2014.

In 2015, as already written above, Dropbox had 150,000 paying business customers and 400 million people using it. However, the company does not release information about the number of paying people – Dropbox Pro accounts. The last data available on this issue is a Forbes's article written by Victoria Barret on October 18th, 2011. Accordingly, the premium accounts were the 4% of the total users and the number was expected to grow because "that 96% of [the total users] is throwing their stuff into Dropbox at such a pace that thousands of people each day blow through the free 2 gigabytes of storage"¹⁸⁴.

Notwithstanding, this consideration did not account for the increasingly fierce competition made by Box, Google Drive, iCloud (Apple) and OneDrive (Microsoft).

¹⁸¹ Dropbox. (2016, January). *Choose your plan*. Retrieved from Dropbox.com: <https://www.dropbox.com/plans?trigger=homepagefoot>.

¹⁸² Helft, M. (2015, August 17). *Dropbox Is Under Siege -- But It's Not Slowing Down*. Retrieved from Forbes.com: <http://www.forbes.com/sites/brookecrothers/2016/02/14/tesla-model-3-vs-chevy-bolt-slugfest-begins-in-the-media/#52de9f452532>.

¹⁸³ *Ibidem*.

¹⁸⁴ Barret, V. (2011, October 18). *Dropbox: the Inside Story of Tech's Hottest Startup*. Retrieved from Forbes. Cit.

“While Dropbox led the \$904 million global market for business file-sharing last year [2014] with about a 24 percent share, No. 2 Box and No. 3 Microsoft each took about 21 percent and doubled their slice of the pie, growing almost twice as fast, according to researcher IDC”¹⁸⁵.

4.2 Dropbox growth hacks

Dropbox, Inc. implemented different instances of growth hacks throughout its history.

The company has always been influenced by the growth hacking since the beginning when it was funded by the startup accelerator Y Combinator, already committed to growth as conceived in the new mindset¹⁸⁶.

Actually, Dropbox began with a growth hack.

Before the service as it is known nowadays, it was a minimum viable product.

4.2.1 *A set of hypothesis and ideas*

Dropbox, Inc. perfectly fit the SBA definition of startup. The business was technology oriented, with great growth potential but also characterized by unique struggles and high risk.

Dropbox is a kind of innovative product that relies on a need, file synchronization, which most people did not realized they had. There was a high uncertainty about a fundamental hypothesis: the market existence. Other companies offering file-sharing and cloud storage were making ridiculous profit at the time¹⁸⁷.

¹⁸⁵ Newcomer, E., & Bass, D. (2015, June 24). *Dropbox Is Struggling and Competitors Are Catching Up*. Retrieved from Bloomberg.com: <http://www.bloomberg.com/news/articles/2015-06-24/dropbox-is-struggling-and-competitors-are-catching-up>.

¹⁸⁶ McKeown, S. (2015, March 2). *Y Combinator & 500 Startups both Focus Heavily on Growth*. Retrieved from Growthhackers.com: <https://growthhackers.com/articles/y-combinator-500-startups-both-focus-heavily-on-growth>.

¹⁸⁷ Ries, E. (2011, October 19). *How Dropbox Started as a Minimal Viable Product*. Retrieved from Techcrunch.com: <http://techcrunch.com/2011/10/19/dropbox-minimal-viable-product/>.

Thus, in 2007, Drew Houston was struggling to find investors for his idea. Many venture capitalists did not understand the unique characteristics of Dropbox. They were quite worried about the degree of competition in the cloud-storing market. There were already several players: AllMyData, Box.net, eSnips, Freepository, GoDaddy, iStorage, Mofile, Mozy, Omnidrive, Openomy, Streamload, Strongspace and Xdrive¹⁸⁸, to name some.

Nevertheless, Houston believed that none of the already existing cloud-storing services worked seamlessly as Dropbox.

Still, he could not effort to build a fully functioning prototype to prove the point because of the many difficult technical hurdles to overcome.

To clearly explain his idea, he arranged a demo video that eventually grasp the attention of Y Combinator¹⁸⁹.

4.2.2 *The Minimum Viable Product and the kick-start*

A year later, taking inspiration from the first demo, Dropbox released a separate video on Digg¹⁹⁰ during its private beta launch on March 11st, 2008¹⁹¹. This time, the aim was understanding whether there might be a real interest in the product which means customers interested in buying it.

The company needed to test the fundamental hypothesis about the market existence.

¹⁸⁸ Arrington, M. (2006, January 31). *The Online Storage Gang*. Retrieved from Techcrunch.com: <http://techcrunch.com/2006/01/31/the-online-storage-gang/>.

¹⁸⁹ Houston, D. (2011, November 1). (Founder Stories) How Dropbox Got Its First 10 Million Users. (J. Zelman, Interviewer) Retrieved from <http://techcrunch.com/2011/11/01/founder-storie-how-dropbox-got-its-first-10-million-users/>: <http://techcrunch.com/2011/11/01/founder-storie-how-dropbox-got-its-first-10-million-users/>.

¹⁹⁰ Digg is a news aggregator “aiming to select stories specifically for the Internet audience such as science, trending political issues, and viral Internet issues”. See: Digg. (2016). Retrieved from Wikipedia.org: <https://en.wikipedia.org/wiki/Digg>.

¹⁹¹ Hendrickson, M. (2008, March 11). *Dropbox: The Online Storage Solution We’ve Been Waiting For?* Retrieved from Techcrunch.com: <http://techcrunch.com/2008/03/11/dropbox-the-online-storage-solution-weve-been-waiting-for/>.

The video is a simply four-minute demonstration of how the product would work on a normal desktop. Drew Houston narrates it personally. As his voice describes, the video shows the Dropbox mechanism directly on a screen as the users were using it themselves¹⁹².

Thus, it had only enough features to properly explain the idea¹⁹³.

Traditional marketers would have implemented market researches and surveys. However, as Cronin and Taylor proved in their study on the service quality, customers' answers about expectations are far more unreliable than answers based on perceptions¹⁹⁴.

The human mind biases can mislead the results of an inquiry assessing the worthiness of a not yet built product. In fact, the investors' reactions were proving that the Dropbox idea was worthless.

On the contrary, the video was simple and clear and it actually gave the experience of the product. Using this system, customers' reactions lean on perceptions rather than expectations.

Obviously, the market existence was confirmed. Within 24-hours Dropbox had 75,000 people signup for the wait-list, a surge of 70,000 new contacts over the beginning 5,000¹⁹⁵.

However, the video was not only designed to test hypotheses. The Houston team filled it with jokes and easter eggs aimed at the Digg audience, a wide community of early adopters.

As in the best growth hacking practices, it had virality embedded.

¹⁹² See: <https://www.youtube.com/watch?v=7QmCUDHpNzE>.

¹⁹³ See p. 90.

¹⁹⁴ Cronin, J., & S., T. (1992). Measuring Service Quality. *Working Paper on Risk Management and Insurance*, No. 52, 3.

¹⁹⁵ Ries, E. (2011, October 19). *How Dropbox Started as a Minimal Viable Product*. Cit.

However, it was not the kind of virality that could enable growth in the mainstream market¹⁹⁶. As Drew Houston said, “to the casual observer, the Dropbox demo video looked like a normal product demonstration”¹⁹⁷. Only the tech community was able to grasp its humor

The video had exactly the kind of features needed to kick start the product only among early adopters and avoid a risky and early expansion to the mainstream audience¹⁹⁸.

Furthermore, not wanting to risk testing a buggy product on over 75,000 people, Dropbox carefully screened who could kick around early versions selectively extending invites. Thus, it could start its process of *validated learning* through customers’ feedbacks and tests and iterate and scale it as many times as needed.

Half a year later, during the TechCrunch50, the product was launched.

“Their strategy paid off. Just seven months after public launch Dropbox hit 1-million users. Roughly a year later they counted 10 million”¹⁹⁹.

4.2.3 *Virality embedded in the product*

Dropbox can be considered a service that relies on both a *viral engine of growth* and a *sticky engine of growth*. The overall product is designed to optimize virality and customer loyalty.

The k-factor is improved through the freemium business model that practically removes monetary entry-costs for prospectors. Furthermore, the free cloud-space offered with a Dropbox Basic account creates a positive incentive to test the product.

¹⁹⁶ See p. 10.

¹⁹⁷ *Ibidem*.

¹⁹⁸ See p. 10.

¹⁹⁹ Houston, D. (2011, November 1). (Founder Stories) How Dropbox Got Its First 10 Million Users. (J. Zelman, Interviewer). Cit.

Additionally, everything inside the product is refined to be clear and simple as complexity and ambiguity are typical instances of switching cost that discourage the acquisition of new customers.

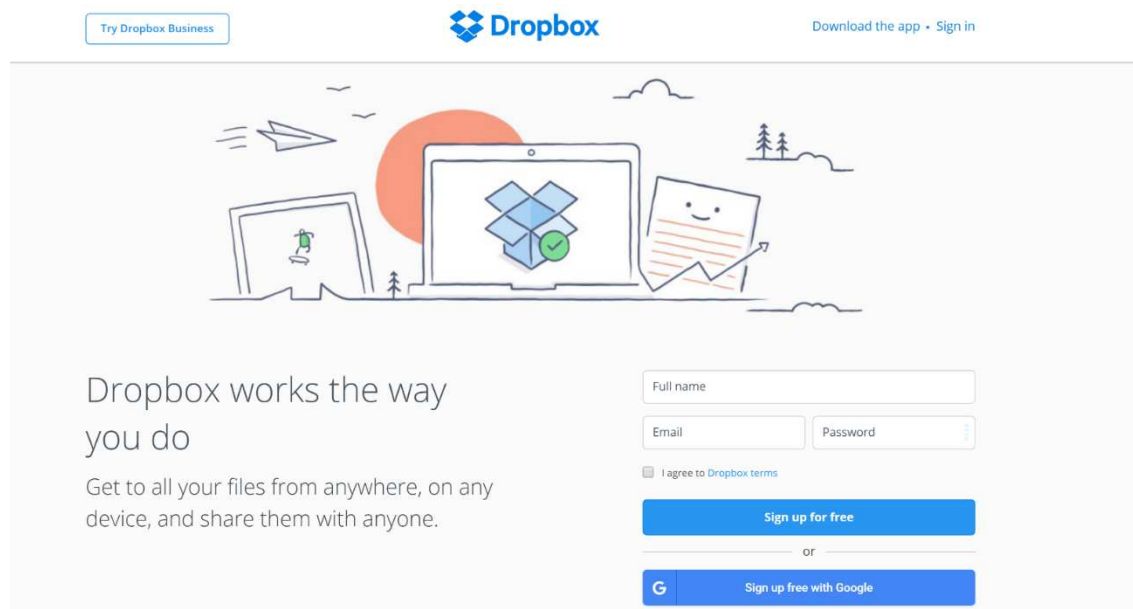


Figure 28: Dropbox website homepage
The figure is a screenshot of the Dropbox website homepage as it looks on January, 20th 2016.
Source: made by the writer

The website has a signup driven homepage.

Dropbox homepage disregards good press or enthusiastic customers' opinions. The number of visual options are limited because too many elements would distract visitors from signing up.

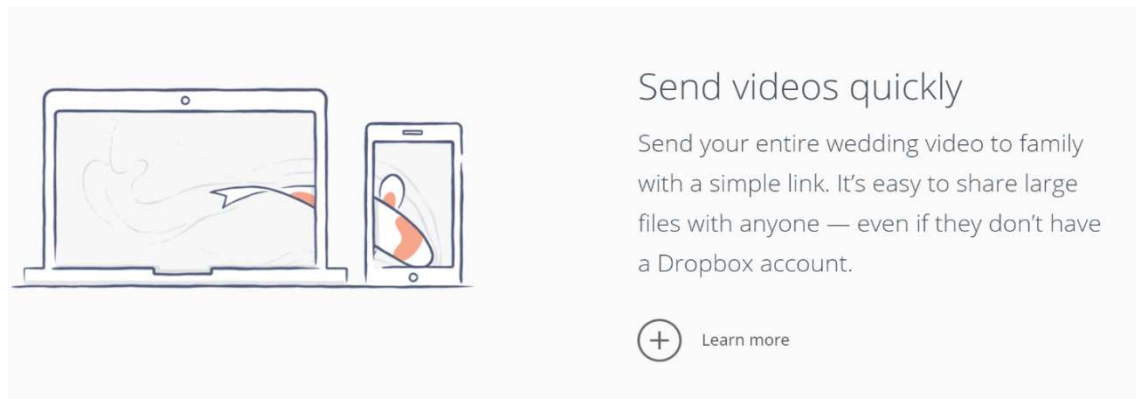
"First time visitors to the Dropbox website will notice the simple layout, which lays the groundwork for the rest of the Dropbox product"²⁰⁰.

The registration is further facilitated by the integration with Google that allows to Google accounts a one button signup.

Scrolling the page, the visitor is lead through a quick and intuitive explanation of the service's main features.

²⁰⁰ Bulygo, Z. (2012, June 13). *The 7 Ways Dropbox Hacked Growth to Become a \$4 Billion Company*. Retrieved from Blog.kissmetrics.com: <https://blog.kissmetrics.com/dropbox-hacked-growth/>.

The focus is the customer. Since the first contact Dropbox teaches how using the product.



*Figure 29: An instance of Dropbox home page explanation.
The figure is a screenshot of the Dropbox website homepage as it looks on January, 20th 2016.
Source: made by the writer*

Later, a Dropbox user can gain free space completing the *Get started*. Get Started is series of steps to involve the customer into the product: “take the Dropbox tour”, “install Dropbox on your computer”, “install Dropbox on your mobile device”, “puts file in your Dropbox folder” and others²⁰¹.

Using these strategies, the company can heighten the customer switching costs in abandoning. At the end of Get Started, the user has Dropbox everywhere he can need it and already knows how using it. Changing cloud-storage provider would imply doing everything again.

Thus, the company fosters the user’s loyalty and lower the churn rate²⁰².


Dropbox has always tried to support a wide range of different operating systems and web browsers in a seamless and uniform manner to be accessible to as many prospectors as possible. In fact, the company updates and improves the compatibility short after new versions of operating systems are released. Integration with communities is fundamental in boosting the user base growth. For instance, in

²⁰¹ Dropbox. (2016). *Get Started*. Retrieved from Dropbox.com: <https://www.dropbox.com/gs>.

²⁰² See p. 87.

2011, Dropbox struck deals with Samsung, Softbank and Sony Ericsson to make the service preloaded on their mobile telephones²⁰³.

The same strategy is currently addressed through the integration with social media. In fact, if a user connects her Facebook or Twitter account, or follows the company on Twitter, can earn additional 125MB for free for each option.

	Connect your Facebook account Share folders with your friends and family in a snap	125 MB
	Connect your Twitter account Invite your friends to Dropbox with a tweet	125 MB
	Follow Dropbox on Twitter Stay up to date with the latest Dropbox tweets	125 MB

*Figure 30: Dropbox section of the Get Space page.
The figure is a screenshot of the Dropbox website Get Space page as it looks on January, 20th 2016.
Source: made by the writer*

Currently, the company has more than 1.2 million likes on Facebook²⁰⁴ and 4.3 million followers on Twitter²⁰⁵.

Since 2009, Dropbox began releasing new features gradually to help measure customer interest which is an application of the Lean Startup concept of *small batches*²⁰⁶. Thus, it is able to test one element per time and quickly collect feedbacks and other data about the users' response.

The overall Dropbox process of learning is enhanced.

²⁰³ Levy, A. (2011, May 30). *Dropbox Partners with Softbank, Sony Ericsson for Global Growth*. Retrieved from Bloomberg.com: <http://www.bloomberg.com/news/articles/2011-05-30/dropbox-partners-with-softbank-sony-ericsson-for-global-growth>.

²⁰⁴ *Dropbox*. (2016, January 20). Retrieved from <https://www.facebook.com/Dropbox/>: <https://www.facebook.com/Dropbox>.

²⁰⁵ *Dropbox*. (2016, January 20). Retrieved from Twitter.com: https://twitter.com/Dropbox?ref_src=twsrc%5Egoogle%7Ctwcamp%5Eserp%7Ctwgr%5Eauthor

²⁰⁶ Tam, P.-W. (2010, May 20). Philosophy Helps Start-Ups Move Faster. Wall Street Journal.

The *continuous delivery* is clearly enabled by the subscription based business model – freemium model - while the traditional logic of one-time charged product would make its application far less linear and consistent.

Dropbox has be rewarded several times for the quality of the service²⁰⁷.

However, even if product/market fit and a good world-of-mouth are important elements, as underlined in the third chapter, virality mostly happen as a side effect of the normal product usage. A product should not be only worth spreading but also able to provoke a desire in people to spread it.

On this point, the Dropbox referral program is one of the most famous instance of growth hack able to turn users in active sponsors.

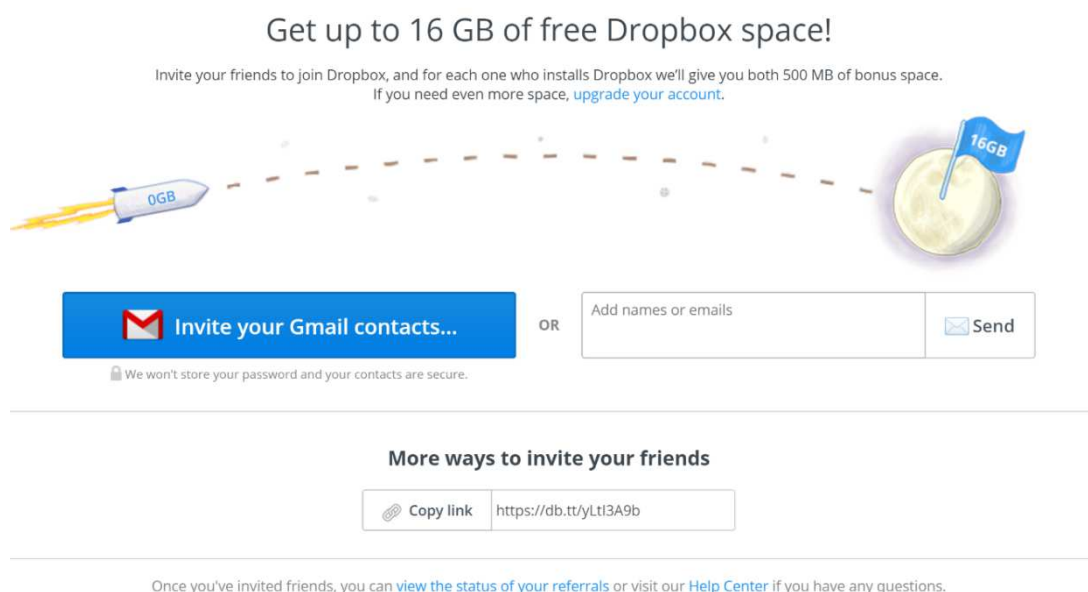


Figure 31: Dropbox referral page.

The figure is a screenshot of the Dropbox website referral page as it looks on January, 20th 2016.

Source: made by the writer

As showed in the figure 30, Dropbox makes extremely easy referring others. Also, it incentives clients giving them 500MB for each friend that becomes a new user. 500Mb is quite a lot if compare to the basic endowment of a Dropbox free account - it is 25% of 2GB indeed.

²⁰⁷ Dropbox (service). (2016). Retrieved from Wikipedia.org: [https://en.wikipedia.org/wiki/Dropbox_\(service\)](https://en.wikipedia.org/wiki/Dropbox_(service)).

Friends' referrals have higher conversion rate than other forms of advertisement. A 2013 survey shows that 84% of global respondents trust recommendations from friends and family, while trust in advertising on branded websites is 69%, as the second most trusted format, and 68% of survey respondents indicated that they trust consumer opinions posted online²⁰⁸.

However, the main reason behind the referral program is the cost. In the 2010 Startup Lessons Learned conference, Drew Houston showed the expenditure for a traditional marketing campaigns appraised by Dropbox, Inc. at the time of the launch. The cost per acquisition, using Google Adwords, was estimated to be between \$233 and \$388 per user – depending on the kind of keywords, that was definitely too high for a product which offered a yearly subscription of \$99²⁰⁹. The main problem was that Google Adword is better for reaching people that already recognized to have a need. Search optimization marketing with display ads and landing pages is to “harvest demand, not to create it”²¹⁰. Furthermore, they faced similar issues on other kinds of advertisement. Dropbox was a risky product because it offers a solution for a problem that most people did not know to have.

Thus, rather than hiring a VP marketing or recruiting a PR company, the company decided to spend the marketing budget on optimizing the product and integrate it with the referral features.

The referral permanently increased signups by 60%²¹¹.

Additionally, it only costed Dropbox few money. The storage limit is just a number in a database and does not cost Dropbox anything until the user actually starts

²⁰⁸ Nielsen. (2013, September 17). *Global Trust in Advertising and Brand Messages*. Retrieved from Nielsen.com: <http://www.nielsen.com/us/en/insights/reports/2013/global-trust-in-advertising-and-brand-messages.html>.

²⁰⁹ The video of the conference is available at: <https://www.youtube.com/watch?v=y9hg-mUx8sE>. For the proceedings, see: Houston, D. (2010, April 23). *Dropbox Startup Lessons Learned*. Retrieved from Slideshare.net: http://www.slideshare.net/gueste94e4c/dropbox-startup-lessons-learned-3836587/30-New_strategy_encourage_WOM_viral.

²¹⁰ *Ibidem*.

²¹¹ *Ibidem*.

using it. Additionally, storage expenses are negligible. Dropbox, as the other company operating in the *cloud computing*²¹² industry, enjoys economy of scale. In a 2013 study for the American Bureau of Justice, Amit Kumar Dutta and Ragib Hasan developed a full cost accounting model for cloud storage systems. Accordingly, the average cost was found to be lower than $\$71.51 * 10^{-11}$ per Byte that is an expense of \$0.5986 per GB²¹³.

Applying this estimate, the Dropbox's cost per acquisition of a new user via referral is in the worst case less than 30 cents.

²¹² *Cloud computing* is a kind of Internet-based computing, where shared resources, data and information are provided to computers and other devices on-demand, enjoys economy of scale on the storage cost.

²¹³ Dutta, A. K., & Hasan, R. (2013). *How Much Does Storage Really Cost? – Towards*. Retrieved from Bja.gov: <https://www.bja.gov/bwc/pdfs/dutta-2013-full-cost-accounting-gecon.pdf>.

Conclusion

The introduction of this work has pointed out the youth of the growth hacking movement and a need for a clarification of its tenets.

In particular, the first chapter has showed how there are different opinions about what is growth hacking. The problem is rooted in a lack of a unified theory. Growth hacking, as saw in the second chapter, stem spontaneously with a typical bottom-up fashion. No practitioner designed a new model that gained success and was consequently adopted and spread. It rather arose locally, in the startup environment, as a response to a set of interconnected factors – innovation, better intern access, diffusion of mobile devices, huge internet-based platforms and technical skills. They were gradually emerging in a context already affected by the shortcomings of traditional marketing.

Though famous growth hackers' have provided slightly different definitions of their activity, there are many common ideas.

The focus is on growth which is conceived as both the acquisition of new customers and the stickiness of existing ones.

The strategies practically implemented are vary and well diversified.

Nevertheless, there is a shared methodology. The choices are data driven and depend on a massive use of analytics that is quite unknown to traditional marketing. Growth hackers use instruments that enable for a reliable estimation of the ROI. The marketing choices are no more left to the gut instinct.

There is a strong customer orientation which manifests in practical tools to gather customer feedbacks and listen to their opinions.

Growth hackers also show a capacity to think outside-the-box and implement original solutions.

All growth hackers manage different aspects of their own companies. Growth hacking has a broad scope. While traditional marketing starts with an already made product, growth hacking works since the first idea. There is no distinction between product development and marketing. They are all part of the same integrated approach. The product should always be modified and tweaked to better match the customer needs. Growth hackers do not try to market a flawed product.

There is an important divergence with traditional marketing.

The initial product is different. Growth hackers usually are more risk adverse than traditional marketers. They prefer release a product as soon as possible to test it and avoid a major engagement before eventually discovering that it does not work.

Growth hacking use different promotion channels. They avoid the expensive traditional advertising and use more sophisticated instruments to specifically target their audience. They use creativity to earn free press. They capitalize on the audience of internet based platforms to promote their products/services beyond the country borders.

Thus, while most traditional instruments suffer high costs, lack of timelessness, an audience constraint to the national level, growth hacking allow company to spare money, quickly adapt and change their strategies, do not waste resources targeting the wrong audience, and test and scale hypothesis to reduce the uncertainty.

This divergence is particularly important for startups.

As the last part of the second chapter analyzed, while established companies can effort the traditional marketing channels, they are usually too expensive for the little budget of new businesses.

Established company also have a personnel with a marketing experience which often lacks in startups.

Furthermore, the hierarchical organization of many middle and huge corporation struggle with the lean approach brought by growth hacking while startups are fluid.

However, the main issue is the uncertainty.

Unlike the established companies, startups have still to test the basic hypothesis behind their business plan. There may be no market for the product. The business model

may relies on the wrong assumptions. The same product/service idea may be somehow flawed.

Growth hacking allows for a management and progressive reduction of this uncertainty. Thereby, it seems a far better approach for startups than traditional marketing.

In the third chapter, the paper has analyzed step by step how shaping the overall life of a startup with the new mindset. The final model is the Lean Startup theorized by Eric Ries.

The basic idea is that a startup should progressively validate the business model hypothesis. The first step is to launch a minimum viable a product which is a product that while reducing the company effort and risk has still enough features to test the customers' interest. Once the first valuable data flow to the company, product and overall organization should be modified accordingly. The product should always be improved. This is why traditional marketing and traditional management cannot properly address the startups' risk. Exactly following a business plan without having tested the underlying assumptions in the real market is insane for startups. Furthermore, no company should waste money trying to market a defected product. It should change it.

Startups can are traditionally viewed as a mechanism to translate an idea into a product. Besides this, they are mostly a way to turn uncertainty into validated learning.

Once the new perspective is adopted, a business can be transformed in an adaptive organization able to change in in response to the external environment, quickly grow but also endowed with speed regulators to stop when something may go wrong.

In spite of these many advantages, this paper also warns on some growth hacking's pitfalls.

Firstly, it strongly depends on internet and mobile devices. On one side, this narrows the set of products or services that may totally embrace it. On the other, it tighten its ability to market a product or improve a business in regions still affected by digital divide.

Furthermore, the high pressure on growth may mislead and lower the overall quality of the company's offerings.

Lastly, while traditional marketing instruments have been tested for years, growth hacking is still young. Empirical cases of totally lean startups do not exist yet. There is the need for further research.

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Summary

Chapter I: Grow Hacking as a new marketing mindset

1.1 Growth hacker definition

The expression “growth hacker” is increasingly spreading worldwide in the startup environment. However, its roots are quite recent. Sean Ellis, CEO of Qualaroo and former growth hacker at Dropbox, coined the term in 2010. *Growth hacker* is “a person whose true north is growth. Everything they [growth hackers] do is scrutinized by its potential impact on scalable growth”¹;

The list of growth hacking tactics is long. The most famous is surely that one applied by Hotmail, one of the first providers of free email, in 1996. Just through putting the tagline “Get your free email at HoTMaiL.” at the end of each message sent by a Hotmail account, the user base increased to millions within few months². The system was soon copied by other companies as Apple and BlackBerry.

However, as stated by Aaron Ginn, “growth hacking is a process, not a secret book of ideas. Growth strategies cannot be easily copied and pasted from product to product. Growth is never instantaneous. It is never overnight. It is a mindset at which you approach problems”³.

Growth hacking is a new way to conceive marketing and the business strategy. Marketing has been traditionally viewed as “the action or business of promoting and selling products or services, including market research and advertising”⁴. Nevertheless, the technological evolution and the changing economic landscape have put this definition under pressure. Growth hacking has combined the classic product development and marketing functions in a unified field where the focus is the user and viral diffusion. Everything is now interconnected to reach exponential growth.

¹ Ellis, S. (2010, July 26). *Find a Growth Hacker for Your Startup*. Retrieved from Startup Marketing: <http://www.startup-marketing.com/where-are-all-the-growth-hackers/>.

² Penenberg, A. L. (2009, October 18). *Viral Loop: From Facebook to Twitter, How Today's Smartest Businesses Grow Themselves*. New York: Hyperion. Retrieved from TechCrunch: <http://techcrunch.com/2009/10/18/ps-i-love-you-get-your-free-email-at-hotmail/>.

³ Ginn, A. (n.d.). *What is a growth hacker?* Retrieved from Aginnt.com: <http://www.aginnt.com/growth-hacker/#.Vqj1MyorKUU>.

⁴ *Marketing*. (2016). Retrieved from Oxford Dictionaries: <http://www.oxforddictionaries.com/definition/english/marketing>.

Even if the “growth hacker” term is just dated back to 2010, the character and the mindset it denotes has been already present in the startup biology from decades.

Furthermore, being an approach, rather than a set of technological tools, growth hacking can be applied to every kind of product or service.

1.2. Differences with traditional marketing

Growth hacking cannot be viewed as an evolution of traditional marketing. A marketer usually approaches the product from a totally different perspective.

Traditionally, marketing has been viewed as the activity of promoting and selling an already made product. Once the product or the service is arranged, the marketer plans campaigns to attract clients and to make the prospect customers wanting it. The aim is to persuade people to like the product, and subsequently buy it.

Growth hacking changes this approach. Marketing does not start with the already developed product but in the developing phase. Growth hackers analyze the market, try to discover the customer/user preferences, search for reliable data and, only then, the product is built. Furthermore, it is an iterative process. Whether the initial product does not perform as expected it is changed.

Another important element of divergence is the kind of initial product. Firms used to sell products that were finished, ideally perfect. The idea behind many first releases is to distribute merchandise with high quality standards that can spread in the market and beat the competition. Growth hackers usually start with a minimum viable product (MVP). The MVP is a product with a minimum amount of features and design. It is aimed at testing the business plan hypothesis.

While old school marketing relies on instruments as television, radio and magazine advertisements, billboards or even email spam, growth hacking avoids these means or uses them in different and low cost ways.

The traditional channels suffer of two main shortcoming:

1. they often have high cost per acquisition of new clients and a low life-time value due to high saturation⁵ which makes them basically expensive;
2. they are not trackable.

In particular, the second point implies that traditional marketers cannot actually measure the ROI of their investments. In fact, even if the expenditure of a billboard campaign or of television ads is easily measureable, the related results are far more complicated to quantify. These traditional means are affected by

⁵ Holiday, R. (2014). *Growth Hacker Marketing*. Cit.

the loss of information due to aggregate data. Growth hacking relies on a series of web instruments, as Google Analytics and KiSSmetrics, that make it possible to track the data to understand the “Investment Gain” part of the ROI formula. Then, it is possible to recognise which investments are underperforming and cut them.

Lastly, growth hacking is often based on strategies that are very technical and complex, something a traditional marketer could not think about.

Chapter II: Factors in the growth hacking rise

““Growth hacker” is a new word for most but a long held practice among the best internet marketers and product managers in Silicon Valley”⁶.

The Aaron Ginn quote points to two important points about growth hacking. The first one is that although the term is new it refers to already established implementations. The latter is that the environment of such early applications is the Silicon Valley.

Growth hacking has been developed as a consequence of three main factors:

- A. the shortcomings of traditional marketing;
- B. the worldwide proliferation of mobile devices and internet access;
- C. an economic background filled with the presence of startups and entrepreneurship.

2.1 The shortcomings of traditional marketing⁷

Traditional marketing suffers from the disadvantages of traditional *marketing channels* such as television, radio, publications such as newspapers and magazines, billboards, telephone calls, mails, face to face, sponsorship of events and street marketing.

The first disadvantage of advertisements on television, radio and the other media, as already mentioned in the previous chapter⁸, is the high cost per client acquisition.

⁶ Ginn, A. (n.d.). *What is a growth hacker?*. Cit.

⁷ This section is aimed to offer a panning shot of the issue. For a deeper analysis, see:

- Kamran Kashani, J.-P. J. (2005). *Beyond Traditional Marketing: Innovations in Marketing Practice*. Chichester: John Wiley & Sons.
- Lambin, J.-J. (2013). *Changing Market Relationships in the Internet Age*. Louvain-la-Neuve: Presses universitaires de Louvain.

⁸ See p. 7.

However, there are many less evident flaws.

Lack of timeless

An old style marketing campaign is planned months in advance. Once it has begun, changing it may imply high adjustment costs and lags. Updating a website, a blog, a Facebook account or a digital leaflet can be done in a matter of hours.

Additionally, digital marketing also has the advantage of providing real time results. It is possible to check the daily number of users for an application, the bounce rates, the conversion rates, trend hashtags and number of clicks virtually instantaneously.

The timeliness of information (input) and updates (output) leads to the possibility of being able to rapidly change and adapt the strategy, a luxury the traditional marketers could not afford.

Hard to Target Audience.

A radio ad may be heard by a vast audience of not uninterested people besides the prospectors that may actually convert to real customers. Print and broadcasts provide statistics about audience demographics, but “once a magazine is mailed, a paper is delivered or an ad is broadcast, you don’t know who actually read, saw or viewed your ad”⁹.

Digital marketing provides far more refined instruments. Social media and search engines, among others, can store data about the user’s preferences and make an accurate profiling. They enable for targeting the kind of person that can really have an interest in the product or service that is provided.

Static

Traditional marketing tends to be static and one-way. It is the company that sends messages trying to convert outside people into buying clients. There is a lack of community building.

Digital marketing provides news and sophisticated instruments for community building. Emails, websites and, above all, social media enable organizations to be more and more interactive. Customers can comment and share their ideas about a product. They can send feedback or complaints and have nearly instantaneous answers. They can “like” the company Facebook page and get real time updates about offers and events. They are engaged into the business.

Product

⁹Ashe-Edmunds, S. (n.d.). *The Disadvantages of Traditional Advertising*. Retrieved from Smallbusiness.chron.com/: <http://smallbusiness.chron.com/disadvantages-traditional-advertising-21215.html>.

In the traditional mindset, the marketer only had to choose a strategy depending on the product's life-cycle. It merely had an influence on the product mix but the most of its work is outside the development domain. Marketing is predominantly related to branding and positioning.

As explained in the first chapter, this has the enormous downside of often reducing traditional marketing to the activity of promoting a defective product with the connected waste of resources for both the firm and the clients.

By merging the development and marketing functions, growth hacking avoids the risk of wasting money on trying to market a hopeless product. Furthermore, the marketer is now in charge for tweaking the "bad" product until it becomes "good".

Nevertheless, it is important to underline two advantages that traditional methods may still claim and the growth hacking techniques lack:

- they have been tested and proven for decades;
- they use real word channels.

Particularly, the instruments that enable data gathering and analysis implied by growth hacking are mostly Internet based.

"With traditional marketing, anyone with a newspaper, mail service, television or radio can learn of your business or service"¹⁰. Internet instruments are tied to people having an online medium and being Internet savvy.

Growth hacking is backed by a specific technological environment.

2.2 The changed technological landscape

Growth hacking relies on analytics, real time results, A/B tests, online surveys, automation, SEO - search engine optimization, content marketing, social media, emails and a set of technical tools. These instruments are based on the connection of users with the firm.

Then, besides mere innovation, three main technological factors have built the field for the growth hacking diffusion:

- greater internet access;
- the propagation of mobile devices;
- the rise of huge internet platforms.

¹⁰ Higuera, V. (n.d.). *Advantages & Disadvantages of Traditional Marketing*. Retrieved from Smallbusiness.chron.com: <http://smallbusiness.chron.com/advantages-disadvantages-traditional-marketing-25573.html>.

Growth in the internet access

Most growth hackers are programmers that use internet based solutions both to gather data and to launch the product into the market.

Furthermore, growth hacking has been a practice mostly in high tech startups whose products often are applications available for download in the app store.

Thus, the internet access of firms and customers is a fundamental precondition.

In recent years, the number of internet users has increased substantially.

While in 2006, less than the 20% of the world's population had internet access, in 2014, 4 people out of 10 been able to connect to the internet at least once in the previous twelve months.

However, there are high inequality in internet distribution. In 2014, internet users were roughly 80% of the population in high income countries but only 6.3% in low income nations.

The spread of mobile devices

The Internet has been fundamental in the development of growth hacking.

Mobile cellular subscriptions can be used as a proxy for the spread of mobile devices.

The World Bank data reported an average of 96.3 mobile cellular subscriptions per 100 people.

However, this data must be treated carefully. It would be a mistake to infer that 96.3% of the population has a mobile device. A single person can have many mobile phone subscriptions as made clear by the information about high income countries where there was an average number of 123.3 subscriptions per 100 people in 2014.

The spread of mobile devices has enabled forms of advertisements employing SMS, MMS, calls, mobile internet and GPS technologies that are different from the desktop based digital marketing.

Growth hackers are the vanguard in the utilization of these systems¹¹.

The rise of huge internet platforms

The spreading of cheaper internet access coupled with the proliferation of mobile devices has led to the last main technological factor behind the growth hacking mindset emergence: the rise of huge platforms. These channels are both larger (billions versus million) and faster than traditional marketing channels. The main instance of such platforms are social networks like Facebook or Twitter with hundreds of millions of active users.

¹¹ See p. 65.

2.3 The economic landscape

The shortcomings of traditional marketing and the changed technological landscape are useful in explaining the rise of growth hacking. Still, they are elements present in several regions worldwide.

Nonetheless, the Aaron Ginn quote at beginning of this chapter highlights how growth hacking took roots in Silicon Valley rather than in another USA area or in Europe or in Asia.

Then, there must be some variable that makes the Silicon Valley environment unique.

Technical skills

“Silicon Valley is a leading hub and startup ecosystem for high-tech innovation”¹².

The zone has a rare amount of technical capabilities and expertise that is absent in many other regions. In a 2013 Forbes article, Joel Kotkin points out that “the Valley’s ratio of 45 engineers per 1,000 employees is twice as high as any other big metro area” which is a factor that the author considers “the Valley’s key asset” and “has made it by most measurements the nation’s most affluent metro area”.¹³

Startup ecosystem

While the link between the technical skills and growth hacking is quite trivial, it is more complicated in relation to startups.

The uncertainty makes the startup risky. Even if the prototype of a product looks good it may fail to reach a market, to have customers, or even to be finished and ready. This uncertainty is related to the basic components of the business plan: the product/service, the market and business model itself.

The growth hacking approach to company activities leads to a reduction of this uncertainty¹⁴. Through the use of the minimum viable product and scalable experiments, growth hacking enables for a decrease of costs and the progressive acquisition of valuable knowledge about the business model, the market and the product/service.

Furthermore, the same growth hacking approach to company activities that implies the merge of marketing and product development is ill-suited for the traditional hierarchical company within a well-defined structure. Established companies usually have specific marketing functions, a strict separation of roles and internal processes that do not encourage the flow of knowledge. Whether a marketer understands that the

¹² *Silicon Valley*. (2015). Retrieved from Wikipedia.org: https://en.wikipedia.org/wiki/Silicon_Valley.

¹³ Kotkin, J. (2013, July 31). *America's Engineering Hubs: the Cities with the Greatest Capacity for Innovation*. Retrieved from Forbes.com: <http://www.forbes.com/sites/joelkotkin/2013/07/31/americas-engineering-centers/#7a0586201e2f>.

¹⁴ For a deeper analysis, see pp. 4-9.

merchandise is lacking something important or has a defect, she or he has few means to share this important information and actively push for the modification of the product.

Startups lack a marked hierarchy. On the contrary, they are fluid.

Additionally, as Ryan Holiday underlines in the article *Everything Is Marketing: How Growth Hackers Redefine the Game*, startups are “averse to traditional marketing for two reasons:

- 1 they don't have the money;
- 2 they don't have the experience.”¹⁵

Startups usually face really tight financial constraints, especially if they are bootstrapping.¹⁶ Advertising on radio, television, newspapers and other traditional channels implies an expenditure that is beyond the budget of most small companies while huge established firm's can afford it. On the contrary, publicity stunts and digital marketing instruments enable free promotion.

Furthermore, startups do not usually have a function filled with people graduated in Marketing or with an advertising background. They lack the kind of skills required to implement traditional marketing.

Startups have been progressively forming growth hacking because they need to manage a high degree of uncertainty, they are fluid, they lack the traditional marketing expertise and they face compelling financial constraints. While, uncertainty and budget are typical elements of weakness in traditional marketing, growth hacking, which requires fluidity and an open mind, provides the right instruments.

Silicon Valley is the origin of growth hacking because, besides the huge amount of skills and innovation, it is filled in with startups.

Chapter III: The management of exponential growth

Melinda Byerley, founder of TimeShareCMO, a data-driven digital marketing consultancy, highlights how “growth hacking has two phases and using the wrong one will sink you”¹⁷. What works for a company

¹⁵ Holiday, R. (2012, December 17). *Everything Is Marketing: How Growth Hackers Redefine the Game*. Retrieved from Fast Company: <http://www.fastcompany.com/3003888/everything-marketing-how-growth-hackers-redefine-game>.

¹⁶ *Bootstrapping*: is a way to finance a business without taking any outside funding. The company has to rely on few money and use marketing that pays for itself.

¹⁷ Byerley, M. (2015, August 11). *Growth Hacking Has Two Phases — and Using the Wrong One will Sink You*. Retrieved from Venturebeat.com: <http://venturebeat.com/2015/08/11/growth-hacking-has-two-phases-and-using-the-wrong-one-can-sink-you/>.

with a growing customer base does not fit for earlier-stage companies still looking for the product-market fit.

Julien Le Coupanec explains the same concept in terms of *traction/growth*¹⁸. Traction is needed to have enough customers to validate the hypotheses behind the business model. Through traction, the company can test changes, conduct experiments, gather opinions and everything is needed to refine its product. The startup has firstly to collect data to optimize. Only when the different assumptions are confirmed and the early adopters have provided positive feedbacks, the startup can seek growth.

The landmark in assessing these two phases is the *product/market fit*.

3.1 Before product/market fit

Marc Andreessen defines the product/market fit as “being in a good market with a product that can satisfy that market”¹⁹. Product/market fit means that customers are increasingly buying the product. The company is expanding its sales staff and the overall personnel. The firm is creating and successfully delivering value. Basically, a product that achieves the market fit has virility embedded in it.

Reaching the product/market fit is an iterative process rooted on repeated interactions between the corporation and the user base. The company must know the client.

However, customer, market and business model are all part of a set of hypotheses that the company must test. Startups need to constantly learn and test the business plan. Furthermore, once it is accounted for the possibility of wrong predictions, the need for changing the strategy is evident.

Rather than making in depth market researches, a startup needs to experiment with real customers. An established company can rely on market studies, statistics and surveys because it operates in an already present market with decades of data about clients’ preferences, price elasticity and so on.

The innovation brought by startups usually imply a new market or anyway a novel way to serve an existing one. Startups cannot completely lean on traditional market researches because there may not be a market at all or the customers may not know what they really want and are open to pay for.

The Lean Startup, a management framework, developed by Eric Ries, addresses the need for a new kind of management accounting for the high degree of uncertainty implied in startups and innovative

¹⁸ Coupanec, J. L. (2015, June 15). *Growth Hacking: The 10 Key Concepts You Need to Remember*. Retrieved from Hackisition.com: <https://www.hackisition.com/growth-hacking-the-10-key-concepts-you-need-to-remember/>.

¹⁹ Andreessen, M. (2007, June 25). *Product/Market Fit*. Cit.

industries. The Lean Start is a framework for empirically learning and adapting the strategy to the emerging information. This is exactly the new approach introduced by growth hacking.

Startups begin with a set of ideas and hypothesis. What they need is a way to continuously validate such assumptions and accordingly improve their ideas.

Thus, they start with a minimum viable product (MVP) is a product which a startup can release in the market to start scanning the hypotheses behind its business plan.

The product needs to have enough features for assessing the few fundamental assumptions. However, any extra feature is a waste. Firstly, it may turn that a beginning hypothesis is false and, then, the product fails to attract customers. The company has wasted more resources than needed to learn the same sad truth. Furthermore, a MVP with many attributes can restrict the firm ability to understand which characteristic is delivering value and which one is only a waste.

Minimum viable products are basically a way to learn. They do not need to be real prototypes.

Once the MVP is ready, the startup needs to practically pull the first users to gain traction.

While the old mindset is focused on attracting the attention of everyone, the growth hackers are mostly concerned with getting the attention of people that can become customers (leads). The focus is on attracting early adopters.

Early adopters are important because they are a kind of customers that although being forgiving about the product defects, they are more likely to provide opinions to the company. Additionally, early adopters tend to become sponsors of good products, i.e. they spend their social capital actively promoting it.

Once the minimum viable product is ready and the early adopters are attracted, the firm can start to gather data about the product usage.

It can use traditional surveys, calls or the usual contact centers as collecting complaints is fundamental. However, as underlined in the second chapter, growth hacking strongly usually relies on digital tools that enable to track and investigate the user behavior.

Learning imply having the correct metrics. This point is well analyzed in a famous Eric Ries's article *Vanity Metrics vs. Actionable Metrics*²⁰. *Vanity metrics* are those data that might be useful to impress investors or make employees feel good but are not really reliable for decision making. Examples are the hits to the company website, the number of downloads for an app, the amount of messages sent using an IM service or

²⁰ Ries, E. (2009, May 19). *Vanity Metrics vs. Actionable Metrics*. Retrieved from Fourhourworkweek.com: <http://fourhourworkweek.com/2009/05/19/vanity-metrics-vs-actionable-metrics/>.

being the trend topic of Twitter. They may deliver a good company image but they are not able to show the cause-effect link that should lead any sound strategy.

Contrarily, actionable metrics are useful information for decision making.

Any company should focus on actionable metrics.

By disaggregating gross data, growth hackers can find valuable information about the customer's demographics, behavior, conversion rates and anything useful to understand how the product is performing. The way a product can appeal to determined prospectors is clearly influenced by their own characteristics as tastes, income, age, political preferences and gender.

The Startup discoveries about the customers are the inputs for improving the product.

A Startup can be fundamentally viewed as a mean to convert an idea into something material. Testing the basic hypotheses leads to a refinement of the overall idea that, in turn, should be translated into building a better product.

However, this process is not a one-sequence approach. It is iterative. A firm can always discover something valuable about the market that should guide to practical changes in the overall business.

The Lean Startup model is based on the concept of *validated learning*: “a process in which one learns by trying out an initial idea and then measuring it to validate the effect. Each test of an idea is a single iteration in a larger process of many iterations whereby something is learnt and then applied to succeeding tests”²¹.

Thus, the starting point is a new hypothesis. Then, either the firm builds the minimum viable product or modified it accordingly in the case of successive iterations. Once, the product is changed, it is released in the market. Thus, the company can collect data about the customers' reactions. This data must be analyzed in accordance with actionable metrics.

The firm can learn from this analysis and repeat the process over and over again in a loop of continuous improvement.

After Product/Market Fit

Once the company has reached the product/market fit, it can start growing exponentially. Marketing is, now, embedded in the product and it has all the right characteristics to start spreading.

²¹ Ries, E. (2011). *The Lean Startup*. Pp. 9 – 10. Cit.

The Lean Startup is based on the concept of *engine of growth* that is “the mechanism that startups use to achieve sustainable growth” where *sustainable growth* means that “new customers come from the actions of past customers”²².

The growth is self-sustaining when no external resources or one-time solutions are needed.

According to Eric Ries, there are three types of engine of growth: the sticky engine of growth, the viral engine of growth and the paid engine of growth. Each of them requires a different set of metrics and strategies²³.

The *sticky engine of growth*: is rooted on the importance of customers’ retention.

The company should focus on the churn rate and the acquisition rate. The *churn rate*, also known as *attrition rate*, refers to the number of customers that abandon the company over the total number of customers in a given time. The *acquisition rate* is the number of new customers over the total number of customers in a given period. The speed of the company growth is given by the *compounding growth rate* that is the acquisition rate less the attrition rate.

Customer retention is fundamental. Traditional marketing is usually more focus on the acquisition than on the retention even if acquiring a new customer is usually far less profitable than retaining an old one.

The *viral engine of growth* is based on the quick spread of a product/service. Virility is enhanced by the word-of-mouth but mostly happen as a side effect of the normal product usage, as in the Hotmail case²⁴. As Ryan Holiday points out: “virality at its core is asking someone to spend their social capital recommending or linking or posting about you for free”²⁵. A product should not be only worth spreading but also able to provoke a desire in people to spread it.

The viral engine of growth is based on a metric named *viral coefficient (K-factor)* that denotes the number of additional clients gained for each new customer. The growth is viral when the K-factor is higher than 1. To keep the viral coefficient high, many companies do not charge the customers directly but rely on indirect source of revenue as advertising. Social networks are a typical example.

As explained in the second chapter²⁶, virality can leverage on existing platforms. Growth hackers can use a thoughtful integration with a big platform like Facebook, eBay or Twitter to make full use of people networks to their advantage. For instance, Spotify, a Swedish commercial service for music streaming, podcast

²² Ries, E. (2011). *The Lean Startup*. P. 207. Cit.

²³ Ries, E. (2011). *The Lean Startup*. Pp. 206-223. Cit.

²⁴ See pp. 4-5.

²⁵ Holiday, R. (2014). *Growth Hacker Marketing*. P. 32 – 33. Cit.

²⁶ See p. 34.

and video, allows to its users to post the tracks that they are listening to on Facebook, thus placing their platform in-front of a receptive audience²⁷.

A company employs a *paid engine of growth* when it spends for acquiring new customers. The company expenditure may be for advertising, public relations, sell force and any other kind of promotion. In this case, the right metrics to track are the customer life time value and the cost of acquisition. The *customer lifetime value (LTV)* is equal to the revenue from the customer less the related variable costs over his/her lifetime. On the other side, the *cost per acquisition (CPA)* is the total cost to acquire a new customer. The speed of the growth is determined by the *marginal profit* that is the LTV less the CPA and represents the amount that can be invested in acquiring new customers per each customer.

Publicity stunts can offer a way to earn free press. The core concept is doing something remarkable. Also established companies can use these instruments. For instance, in 2015, Chevrolet, an American automobile division of the American manufacturer General Motors (GM), issued a press release written entirely in emoji before publishing a decoded version a day later. The stunt was aimed at win over the younger customers. It gained a lot of publicity because bloggers and young community felt challenged in decoding the message²⁸.

One-time expedients are useful but the company should be careful in choosing the right mean. Gaining publicity is itself worthless if it cannot be converted in value.

Speed of growth

Once the one-time expedients have boost the customer acquisition and the engine of growth is running, the company needs a way to manage the growth.

This issue is behind the Lean Startup concept of *Adaptive Organization*: “one that automatically adjusts its process or performance to current conditions”²⁹.

A startup can manage its growth through a set of *speed regulators* that enable the company to slow down and solve the problems as soon as they arise. This idea is tailored on the Japanese *andon cord* system that forces production to stop when there are quality troubles³⁰.

²⁷ Minchin, A. (2014, May 28). *20 Awesome Growth Hacking Examples – What Do They Have in Common?* Cit.

²⁸ Logan, M. (2015, June 22). *We Try to Decipher Chevy’s Bewildering Emoji Press Release*. Retrieved from Wired.com: <http://www.wired.com/2015/06/emoji-press-release/>.

²⁹ Ries, E. (2011). *The Lean Startup*. P. 227. Cit.

³⁰ “The *andon cord* is literally a cord that workers can pull – a cord they should pull – any time something in the manufacturing process goes wrong that would compromise the quality of the product or safety of the people. The line stops immediately. Everyone’s attention is turned to the problem”. See: Wangsgard, T. (2010, February 12). *Pulling the Andon Cord: Lessons on Taking a Time-out*. Retrieved from Franklincovey.com: <http://franklincovey.com/blog/consultants/toddwangsgard/2010/02/12/pulling-andon-cord-lessons-timeout/>.

Adaptive processes force the organization “to slow down and invest in preventing the kinds of problems that are currently wasting time. As those preventive efforts pay off, you naturally speed up again.”³¹

The main adaptive process is the *five Whys*, developed as a systematic problem-solving tool by Taiichi Ohno³². Five Whys is an investigative method that requires employees to ask themselves why five times for understanding an issue in its deep roots. Once the reasons are clear, the company can make proportional investments for each of the five level of the hierarchy. The investment should be smaller when the symptom is minor and larger when the symptom is more painful.

Thus, companies can tie investments directly to the prevention of the most problematic symptoms and, gradually, make incremental changes that ultimately end up in a systematic new way.

However, besides five whys, a startup can implement other practices to be more reactive to external changes.

The Lean Manufacturing practice of *small batches* may be useful to speed the validated learning process and avoid wastes. In fact, in many startups the development and design phases are still based on the old mindset of large batches. Once the product manager has an idea, it talks to the designers. The design is performed as a unique process that ideally ends up with a perfect plan of how the product should look and what it should performs. Eventually, this design is sent to the developer for the technical specification.

This procedure is based on the Ford’s mass production system. It exploits the functional efficiency implied in repeating the same set of activities over the time.

However, this process is flawed in many way. Firstly, developers build the technical specifications without any contact with final customers. Secondary, problems are more likely to arise in large batches than in small batches and when they arise the work has to be sent back to the previous phase interrupting the related function. Thirdly, an error would affect the entire production rather than only a part and it may be more difficult to detect because of the correlation of many features. Lastly, there may be problems of interaction and waste of resources in handling the project from a function to another.

The claimed large batches functional efficiency does not seems enough to balance these shortcomings.

Growth Hacking implies a new management approach. Rather than applying this bureaucratic process, the production of a product can be split into the production of its single elements.

³¹ Ries, E. (2011). *The Lean Startup*. P. 229. Cit.

³² Ohno, T. (1988). *Toyota Production System: Beyond Large-Scale Production (English translation ed.)*. Cit.

This mindset is clearly rooted in the continuous delivery framework: “a software engineering approach in which teams produce software in short cycles, ensuring that the software can be reliably released at any time. It aims at building, testing, and releasing software faster and more frequently”³³.

The core idea is that product managers, designers and developers should work in small teams together with customers on few product’s characteristics per time.

Thus, the company can speed up the process of learning and reduce the waste due to mistakes.

³³ *Continuous Delivery*. (2015). Retrieved from Wikipedia.org: https://en.wikipedia.org/wiki/Continuous_delivery.