

Inside the Hack: In Search of a Model for Growth Experiments

A Dissertation Presented

by

FILIPE LIMA

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ABSTRACT

INSIDE THE HACK: IN SEARCH OF A MODEL FOR GROWTH EXPERIMENTS

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Company growth is one of the most widely accepted factors to evaluate performance. While this growth was traditionally only linked to sales, the advent of the Internet has taken it to a broader scope, putting traction as one of the main growth indicators.

The Internet gave birth to distribution and promotion channels that were otherwise impossible, and saw the rise of new business models. Internet start-ups made several headlines as many of them exhibited unprecedented growth curves. Hotmail, Dropbox, AirBnB and others achieved phenomenal growth without massive budgets. As interest sparked on these companies, so did some marketers come forward with a disruptive notion on marketing – growth hacking.

Early advocates of growth hacking advised the marketers of the future to acquire transversal skill sets, focusing on analytics, creativity and technical thinking as main pillars. For all the commotion that growth hacking generated, few online guides on the subject are found, along with almost zero academic research on the matter. With all existing knowledge pointing out that growth hacking consists on designing, deploying and optimizing growth experiments, there is surprisingly no readily available information on the workings of a growth experiment – or growth hack. This knowledge seems to be still confined to the minds of growth hackers, and is found scattered online.

With the ultimate goal of uncovering tangible insights on the matter, several growth hackers were interviewed and asked on their own strategies when employing growth hacks, as well as their opinion on the overall subject of growth hacking. Not only were responses massive, they showed clear patterns on how growth hackers try to optimize their workflow, from ideation to iteration.

Main insights from interviews were matched with existing knowledge on word-of-mouth and viral marketing, two pillars of consumer products' growth curves, in constructing a communication map for a growth hack process. The proposed process clearly identifies the key players, enlightens the decision-making touchpoints and their influencing factors, overall proposing a framework to be used by growth hackers as a planning tool, and by researchers as a seed for future studies.

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1. Introduction

1.1. Scope

This dissertation is the final thesis in my Master's degree in Innovation and Technological Entrepreneurship, from the University of Porto (Portugal).

The proposed topic of study is growth hacking – an emergent concept in marketing and entrepreneurship that seeks to find the optimal growing strategies for start-ups. This novel concept has recently attracted a lot of attention since notable entrepreneurs and marketers have stated that some of the efforts that have led to the extraordinary growth of companies such as Airbnb, Uber and Instagram are in fact “growth hacking” strategies. Several growth marketers have taken this opportunity to label themselves as “growth hackers”, as the concept keeps growing in recognition. Then, there is a great opportunity for research surrounding this topic, in search for a more formal model or strategy that can be used by start-ups to achieve sustainable growth.

1.2. Motivation

During my two years studying technological entrepreneurship, I have had the chance to enroll in classes from several distinct fields of study that greatly contribute to an entrepreneur, ranging from innovation to marketing to product and service development. However, amidst this variety, marketing certainly was the subject I was most interested about and which I felt the most comfortable with. Curiously, this lined up almost perfectly with my professional path - I have been working as a web developer since early 2015 - as I gradually felt the need to include web marketing concepts in my daily work routine. As a result, about a year ago I decided to enroll in several different online courses relating to web marketing, which soon led me to the concept of “growth hacking”. This past year, as I learnt more and more about this concept, the more interested I was in trying to build my own knowledge and competencies in it.

Given the ambitious entrepreneurial projects I have been working with, and thinking about my future contributions to these projects, I set a goal to become as familiar with growth hacking as possible, so I can develop and implement the most effective and sustainable marketing strategies and seek to achieve remarkable growth curves. This is, then, my ultimate motivation to do a deep analysis of growth hacking, mainly from the perspective of understanding users' motivations and decision-making process, with the objective of being able to design higher potential growth hacks.

1.3. Objectives

The overall objective of this dissertation is to empower growth hackers and start-ups to leverage their own growth hacks. With this in mind, a subset of specific objectives is detailed as follows:

1. Frame all the existing knowledge on growth hacking both from researchers' and marketers' points of view;
2. Understand how growth experiments are conducted, from the perspective of growth hackers;
3. Analyze the decision-making process of users, in the scope of growth experiments;
4. Propose specific recommendations that can be used by growth hackers and for future research.

1.4. Outline

The present document follows a structured approach, and is split into a total of nine sections.

It begins in this current section, by framing the scope of the research, the author's motivation and the research outline. In the second section, the subject at hand is contextualized in relevant literature, from a top-down perspective, where broader scope subjects are presented first, and then narrowed down to more specific research topics. The critical analysis of literature findings uncovers a third section, where an existing gap in the literature

is scrutinized, serving as the main primer for the relevance of the current research, and the main questions to be addressed by the study are presented. To this, follows a section with the methodology, an explanation of which procedures were used to obtain and gather data, both first-hand and second-hand, in such a way that they can be reproduced by a different researcher. Research design is also presented and thoroughly grounded in the scope of the subject at hand. Results are presented in the fifth section, structured according to the concerned topics, and with visual representations that enable an overview. The discussion of the results follows, and is subdivided into propositions. This discussion presents a systematic analysis of the obtained results, and contains all the propositions that are placed by the author, in arguments that are properly backed up by the literature. Next, main findings of the study are wrapped up into the conclusions section, which also contains recommendations for growth hackers, a statement of the study's limitations, and an incentive to future research. In the eight section, all articles that are cited in this dissertation are presented, and the dissertation finishes with all relevant support materials, provided in the annexes section.

2. Literature Review

2.1. Research Outline

In order to gather as much information as possible about the subject under study, extensive research for “growth hacking” was done in the website *scopus.com* – which led to no results, given the concept’s novelty in literature – and in Google Scholar, which led to some recent publications on growth hacking, both in books and in several websites dealing with the concept. From this point onwards, it became clear that – as will be explained below – two pivotal concepts that relate with growth hacking are word-of-mouth marketing and viral marketing. Additional keyword-based research was done in *scopus.com* for these fields of study, which resulted in gathering 39 articles, which were then analyzed and graded according to their relative importance. Apart from these, additional articles were encountered via Google Scholar and suggestions from a professor from the Faculty of Economics from University of Porto. The most relevant articles are taken into account in the present literature review and will be discussed in this section. All research was conducted during November and December 2016.

2.2. Growth

Company growth is one of the most widely used constructs of assessing company performance, health and value. Many authors, including Davidsson, Delmar, & Wiklund (2006) point out that growing companies, regardless of size, are promoters of a vigorous economy, through the creation of new jobs. This has led growth to be often chosen over revenue, market share and financial ratios to evaluate performance, as entrepreneurship researchers point out that growth is a crucial indicator of venture success (Robert, Baum, Locke, Ken, & Smith, 2001). Rapid-growth firms are being extensively studied due to their positive stimulus to the economy, and they traditionally represent firms that have market acceptance and are overall successful. This has made growth one of the top priorities of many firms, and literature regarding the behaviors to achieve and maintain rapid firm growth has been on the rise (Barringer, Jones, & Neubaum, 2005).

Several late 20th century studies on company growth sought to uncover and explain the main determinants of business growth. In his deep analysis on company performance, Child (1974) extensively studied companies and managers for insights on how growth was being sculpted. His findings pointed out that resource allocation, managerial mindset and objective priority management were strong determinants of growth. Child’s further research argued that environment, technology and size are also players in growing companies, but their specific effects difficult to isolate (Child, 1975). Other authors, namely Churchill & Lewis (1983), Scott & Bruce (1987), and Steinmetz (1969) have discussed the stages of business growth, as well as main growth barriers and determinants in each stage. Some growth determinants that seemed to generate consensus were the firm’s capability to mature its technology – via research and development, and product development – achieve economies of scale and attract sufficient financing.

Notwithstanding the known limitations of company growth assessment of most 20th century research – often based purely on sales, and less frequently on the number of employees (Churchill & Lewis, 1983) – a great portion of this research would be found even more obsolete, after the business paradigm change that occurred close to the turn of the century, with a technology boom and the birth of the internet. Firms, businesses and industries’ competitive advantages were heavily impacted by this new information channel, which quickly redefined the concept of a business model. These issues, along with the overall impact the internet had on firm performance, were first addressed by Afuah & Tucci (2001). The authors began by assessing that firm performance and growth were known to be determined by business models, the industry environment, and change, three dimensions which the internet came to disrupt. Then, they refer to the importance of the e-business era, and how it effectively can be used by firms and managers to develop a new winning strategy. There remains no doubt that the ways companies grow has been shaped by the new information era, and it came to be even more so as the years passed (Malhotra, 2000).

2.3. Distribution and Growth Redefined

Distribution, along with product, price and promotion, remains one of the four pillars of the marketing-mix, a set of factors that dictate how to market a product. The ever-changing nature of the market has assured that the core definitions of marketing have not stayed immutable. Several events over the last decades have defied every notion of the market itself, but no event has been able to stir it as much as the advent of the internet (Kotler & Keller, 2009).

The internet opened global distribution and promotion channels that could be built no other way. It presented an almost unprecedented opportunity for extreme cost reduction and huge increase in outreach and growth. Traditional distribution barriers – either geographic or logistics – crumbled down with a rapidly growing channel where companies could set up shop at the reach of billions of users and buyers. It is then no surprise that it also meant opening up a brand new chapter on business model generation. Digital and technological offerings can be distributed worldwide in an instant, and promoted virtually with the same ease. This new landscape of internet-based companies quickly scaled, forming an industry where all players have nearly the same capabilities in terms of promoting and distributing their products. As a result, those stopped being major drivers and predictors of growth, and forced companies to come up with new strategies to stand out in a digital crowd, and ultimately being able to achieve sustainable economic growth (Timmers, 1998).

By shaking so many business dimensions all at once, the birth of the internet not only redefined distribution, but also shook the traditional definition of growth itself. The start-up scene has changed so much in the last decades, that an old-fashioned view on growth didn't fit in with internet-era start-ups. Start-ups cannot operate with small mindsets or mediocre ambitions. Successful start-ups seek growth at every opportunity, with a conviction of growing fast. This growth has then become a start-up's most valuable weapon – by showcasing positive growth and demand, start-ups become increasingly more attractive to investment opportunities and further scaling. Here, a new view on growth is born: traction.

By its own nature, traction represents the act of moving forward. This is essentially how traction works for start-ups – a quantitative evidence of customer demand. Evidence that, in itself, holds enormous power and gives start-ups leverage in fundraising, press, partnerships and fostering further growth. The core metrics behind traction go much farther than an increase on sales – growing downloads and installs, daily active users, demo signups, and countless other KPI's are the growth evidence of internet start-ups (Weinberg & Mares, 2014).

And these same internet start-ups have been causing quite a market shift on the last decade. The number of wildly successful internet start-ups arose, some of them – such as Instagram or Airbnb – being some of the fastest-growing firms ever (Holiday, 2013). The factors leading to such growth were vastly scrutinized, and there is one that clearly stands out: growth was not a consequence of well-conceived promotional campaigns with multi-million dollar budgets, but a consequence of the products themselves. As most Internet start-ups had no other way but to go extremely “lean”, traditional push strategies stopped being feasible. Here, necessity was in fact the mother of invention, as entrepreneurs and marketers had to figure out how to step out of traditional marketing strategies and embrace the new Internet product environment, reaching out to users, promoting a two-way open communication system and gathering valuable feedback. This “aha” moment was the minute where entrepreneurs started looking for a “product/market fit”, and this whole process became known as growth hacking (Holiday, 2012).

2.4. Growth Hacking

Growth hacking is an emergent concept in the marketing field of study. It is widely accepted that its origin goes back to 2010, when Sean Ellis, notable marketer with affiliations to big companies like Dropbox and LogMeIn, wrote about this concept of achieving efficient growth in start-ups that are ready to scale. Specifically, he advised start-ups not to hire a VP of marketing with a “traditional” skill set, but instead to hire a person who is analytical, creative and not afraid of risk, and whose true focus is growth (Ellis, 2010). The fact is that this proposition from an influent marketer stirred the industry quite a bit. As it turned out, the proposed term of “growth hacking” stuck, and it is now the unofficial definition of this new marketing trend which focuses mainly in Internet start-ups and strategies to achieve growth (Herttua, Jakob, Nave, Gupta, & Zylka, 2016).

This switch of mentality was tremendously important in Internet start-ups. Before product/market fit, marketing dollars are spent aimlessly into the unknown, while after product/market fit, a company knows that its marketing efforts will be effective in contributing to growth. Several large Internet companies like Twitter state that this was pivotal in achieving high sustainable growth. Specifically, understanding the whole user experience, from product discovery to product adoption to product use enables optimization strategies to enhance the product to better suit what the user needs and expects. If done properly, the result is achieving unparalleled growth without the need for extraordinary budgets. This is what growth hacking tries to achieve. In the words of Sean Ellis (2010): “The #1 requirement for effective, sustainable growth hacking is to start with a 'must have' product experience”.

Other prominent marketers followed Ellis, with bold claims into how growth-oriented marketers were threatening VP’s of Marketing with traditional mindsets. Andrew Chen did so with his blatant headline “Growth Hacker is the new VP Marketing” – not only stirring interest on the even then obscure concept of growth hacking, but also urging traditional marketers to re-assess their own mindset (Chen, 2013). Chen’s own growth mentality has led him to run growth at Uber, one of the fastest start-ups of the decade (Wilhelm, 2015). There have been several other noteworthy examples of growth mentality promoters, including Dan Martell’s “growth engine” (Martell, 2015), Aaron Ginn’s practical tips on growth (Ginn, 2013), John Vars’ “super dope growth framework” (Vars, 2016) and Ryan Holiday’s take on growth hacker marketing (Holiday, 2013).

The sudden increase in interest for growth hacking created a huge opportunity for prominent online marketers to explore it thoroughly, understand its logic and ultimately break it into detailed step-by-step tutorials. This has been the case with Neil Patel and Bronson Taylor, who composed one of the most thorough and (arguably) simple guides on the subject. The marketers explain the concept, its origins, and the optimal traits for a growth hacker – which had already been a discussed subject – but they also came forward with a proposition of a growth hacking process, in a checklist fashion. This process aimed at finding common ground on how to proceed with growth hacking efforts, highlighting decisions to be made, priorities to be had, and efforts to emplace. The proposition relies on six stages: define actionable goals; implement tracking analytics; leverage own strengths; execute experiment; optimize experiment; repeat (Patel & Taylor, 2016).

The first stage of Patel’s and Bronson’s proposed framework – “define actionable goals” – urges marketers to shift all focus to specific goals, and not the broad goal of growth alone. Its purpose is to enable clarity and detail achievable tasks. Authors propose that big goals should be broken down into successively smaller goals, which the marketer should be able to focus on, and come up with tasks to achieve it.

“Implement track analytics”, the second stage, begins by advising marketers to question if the proposed goals can be tracked with proper analytics. Anything that is un-traceable cannot be considered a valid goal, for it will never be accurately tested.

At the third stage, authors propose that marketers learn how to leverage the start-up’s existing strengths. Such leverage can translate to using little energy to achieve sizable results. This is especially important because neither start-ups nor marketers can afford to spend too much time and effort in testing something with unknown results.

The fourth stage marks the execution of the experiment. Here, after the marketer has understood the goal, made sure it is trackable and tried to use own strengths to leverage the outcome, a test should be made to achieve a result on the proposed action. The authors propose that the experiment’s hypothesis should be written down, stating what the expected aftermath could be, and why it would be so. These help marketers reflect on their assumptions, facilitating a critical analysis of the results, once the experiment is concluded.

After the experiment’s completion, Patel and Bronson propose a fifth step of optimizing the experiment itself, before re-running it. In order to achieve optimization, the authors propose setting up control groups – to isolate variables and reach clearer conclusions – and utilize A/B testing – to test multiple variables in a single experiment, each in its own variation. These help the marketer ensure less time and efforts are ill spent when running experiments, as initial tests are seldom optimal, and it actually takes several re-runs to reach substantial results. This is why repetition appears as the sixth and last step of this process. Failure in experiments is almost certain, and there is a need to go through all the steps, time and time again, until either encountering success, or giving up on the experiment.

Notwithstanding its thoroughness, Patel & Taylor’s framework is not the only know proposition. Growth Tribe, Europe’s first growth hacking academy, presented their own interpretation of the growth hacking process,

during 2015 (*Figure 1*). Much as Patel and Taylor's, it takes a practical approach. However, it gives the experiment phase a whole other dimension, diving deep into the importance of ideation, prioritization of ideas and experiment design. Not only that, it brought up several useful tools for growth hackers to somewhat systemize their own work, reducing uncertainty to the least possible degree (Belicova, 2016).

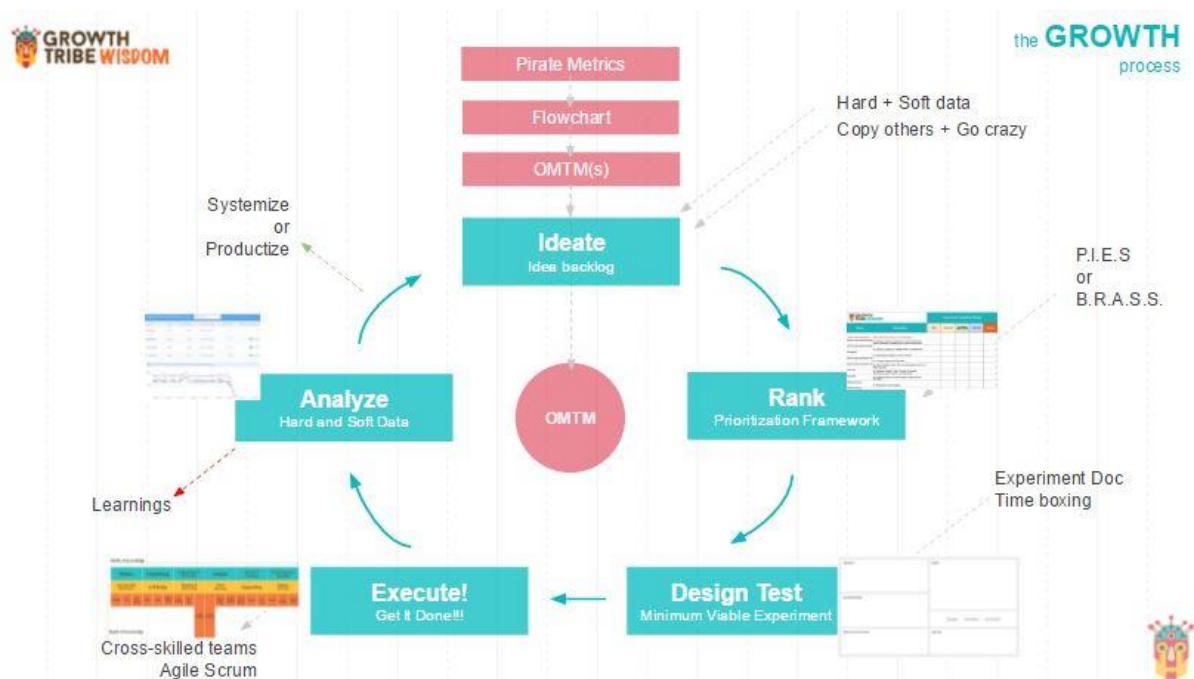


Figure 1. Growth Hacking process and its main practical components, as idealized by Growth Tribe.

Although growth hacking as a practice has already become well understood by marketers, there is almost no literature analyzing it from a conceptual standpoint. Herttua et al. (2016) were pioneers in trying to find one consistent definition for this concept and in proposing a structured process. However, unlike the framework proposed by Patel & Taylor and other marketers alike, these authors proposed a growth hacking process specifically focused on the product. This proposition came forward with four distinct phases – analyze actual situation, product optimization, A/B testing, and hack – all of which have inherent concepts, ranging from analytics to product design, to marketing and to strategy. Each phase is further detailed below.

“Analyze actual situation” is the first step and relates to the need to analyze existent data, such as social media performances, with specific objectives in mind. This can be done by data analytic tools and should be done with more than one significance.

“Product optimization” brings a critical interpretation of the first phase’s results as ideas to implement in product design. This ensures that the product is optimized as per the clients’ real needs, creating a product that people really want.

After reaching a version of the product that seems to be perfect, A/B tests should be performed using two or more versions of the product, and with specific goals in mind. The two versions should have a measurable difference (preferably with one changing variable), and the results of extensive testing will point out, statistically, which version is more accepted.

The last step “hack”, is by itself a process with its own objectives; it comprises a set of strategical actions, which should be measurable, analyzable and implementable, with main intended output of convincing existent users so that they will not churn. In order to do so, users need to understand why the presented product exceeds the value of similar ones, and the specific value that the company brings.

Based on this whole process, the authors were able to come up with a succinct definition of this concept: growth hacking is a marketing strategy that, instead of seeking to acquire new customers, tries to convince existing customers to sell the product themselves and convince others. Ultimately, it is inside the “hack” step that the company needs to present and communicate its value effectively to an existing user, seeking to convince that user to convince others.

An assessment of the growth hacking frameworks detailed above – from marketers and researchers – can quickly lead to finding common ground on both perspectives. Both sets of authors propose first steps that are heavily objective and analytics-focused, and latter steps that relate to running optimized experiments – or “hacks”. However, Herttua et al. (2016) propose a standpoint where growth hacking must be emplaced from the product itself, while marketers do not restrict it so. It becomes apparent that marketers seem to place growth hacking in a broader dimension, while researchers favor a narrower, product-centered approach. It remains to be understood if growth hackers work only on the product level, or any dimension that may lead to growth.

2.5. Growth Hack

A growth hack is an experiment that is conducted during the growth hacking process, with the objective of fulfilling a specified set of goals. It appears as a vital piece of every growth hacking framework, and is the object of open discussion among marketers.

As stated in the previous section, two distinct viewpoints on growth hacking exist, regarding the focus of the experiment phase. Most marketers seem to conduct experiments on every level of the company – promotion, product, distribution, etc. – solely focusing on encountering new acquisition channels that drive growth with minimal cost. As it stands, an experiment that results in “cheap” growth, whichever its origin, is considered to be a growth hack, from the perspective of most marketers. A different outlook of a growth hack puts the experiment itself as a test of a new product feature, and observation, through analytics, of the experiment’s output when compared with the control version. In this case, the goal is specifically coming up with a product that is capable of generating traction on its own.

Other than the object of the growth hack, there is an overall consensus on its objectives and actions. By definition, an experiment’s output must equal growth, otherwise it should be modified and retested, or discarded. Analytics are the lifeblood that runs through the veins of a growth hack, constantly monitoring outcomes, and even uncovering insights that would otherwise be unknown. As this process is ever iterative, analytics insights from previous growth hacks can serve as valuable inputs for future experiments (Belicova, 2016; Holiday, 2013; Patel & Taylor, 2016).

In online growth hacking communities (such is the case with growthhackers.com), there has been debate around the hack process. Several growth studies are presented for community discussion, as well as Q&A’s and continuous interaction among growth hackers. The Q&A sections enable a view on the questions most growth hackers ponder on. One common central issue seems to be “how should I be getting ideas and working them for experiments?”. In one such case, notable growth hacker Sean Ellis doubted growth hackers can do much to help one another with this process, due to each case’s uniqueness. As for his standpoint, he proposed that this ideation and test stage should derive from studying successful growth examples, learning about emergent platforms, reviewing best practices and talking to customers (Ellis, 2014). A year later, Ellis came forward with the ICE score concept, a very simple tool to evaluate growth experiments for their impact, confidence and ease (hence, the name ICE). Here, the impact refers to the effect that implementing the idea can have on overall growth; confidence is a measure of the growth hacker’s confidence on the experiment’s success; ease evaluates how easy it is to test.

Some other growth advocates have come forward with different tools to help clear the way from ideation to the hack step. Growth Tribe proposed a conceptual map of the whole growth hacking process – the growth skills formula (**Figure 2**). Apart from the value of mapping concepts from each vital set of growth hacking skills and tools, it clearly identifies several of these for the experimentation (or hack) process. This set of concepts provide one of the best outlooks on the workings of a hack, from a practical perspective. Two of these tools – BRASS framework and PIEs framework, are presented as tools to help the growth hacker prioritize experiments and be more methodical.

Growth tribe’s own BRASS framework is advertised as not being rocket science. Its ultimate goal is to prioritize customer acquisition channels, which can be a daunting task for a start-up. This framework guides growth teams through the brainstorming phase – suggesting several sources of inspiration, such as navigating through growthhackers.com – and them presenting the BRASS criteria. These criteria are fairly straightforward – blink, relevance, availability, scalability and score. Blink represents the gut feeling, or intuition, about the proposed channel; relevance evaluates the channel’s applicability to the product and audience; availability measures

the ease and cost of setting up the channel; scalability measures its scaling potential; score is the result of multiplying all previous scores and enables an informed prioritization of ideas (Arnoux, 2016).



Figure 2. The Growth Skills Formula, a visual representation of the skillset a growth hacker should possess, as envisioned by Growth Tribe.

Some other marketers have discussed pressing issues with this experimentation phase. Aaron Ginn, in his “8 practical tips for growth”, outlined some of the lessons learned through his own experience with growth hacks. Most of these tips seem to point towards the risk of “burnout” – when experiments are far costlier than the possible rewards. He points out that the inherent failure – expected outcome of most tests – can lead to overall negative results, when it occurs far too often. Then, growth hackers should seek to ensure they can keep predictable failures out of the equation – not that this means a disregard of the iterative nature of the process. Instead, team velocity and agility should be matched with a management of testing risks – considering experiment length, dimension and opportunity costs – with the goal of fostering behaviors lead to sustainable growth (Ginn, 2013).

2.6. Value and Product/Market Fit

Recent entrepreneurship research has comprehensively analyzed value as a pivotal aspect for a company’s strategy and business model. Recent works by Osterwalder & Pigneur (2013) and Blank (2013) showcase value as being the center of a company’s business model, and detail that the value proposition is the reason why customers rely on a certain company, as it is a promise to deliver a bundle of value-creating benefits (Buttle & Maklan, 2015). Then, a proper business model needs to address a specific value proposition to a specific market segment and, if done properly, it marks the achievement of product/market fit (Blank, 2013).

Growth hacking’s whole process revolves around attaining product/market fit in order to achieve sustainable growth. The “hack” step, as detailed above, can be analyzed as being a multilevel communication process where each participant is, in fact, receiving and sending a specific value proposition. The many value propositions at stake at a given moment can be analyzed through the different perspectives of value, which were detailed by Snoj, Korda, & Mumel (2004). These authors debate that the perceived value of an offering is dependent on the benefits and sacrifices perceived by the interlocutors. Here, the perceived benefits are related to the tangible and intangible attributes of the offering, while sacrifices relate to the costs of acquiring the offering and its use – not only price, but also all the efforts, risks and insecurities (Zeithaml, 1988). The net trade-off between the perceived value and sacrifice is a strong determinant on the users’ likeliness to accept the offer – be it, in this case, either continuing to use a specific product, or invite others to use the product as well.

A conceptual diagram of the “hack” step is presented in **Figure 3** below.

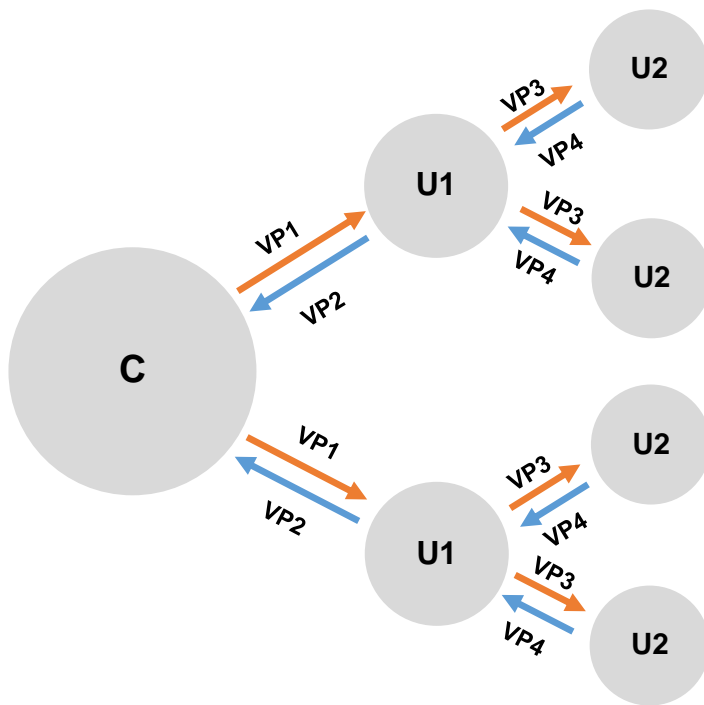


Figure 3. Conceptual diagram of growth hacking's "hack" step. Here, "C" represents the company; "U1" represents a user in the first level of interaction; "U2" represents a user in the second level of interaction; "VP" regards the different value propositions. Only the first two levels of interaction are shown, although this diagram can extend to several more.

In order to properly estimate the effectiveness of a "hack", it is then needed to look at the diagram not only towards what is happening – multiple value propositions to multiple players – but also how and why. Here, considering each individual interaction, the company is effectively trying to provide enough value to a first-level user (hence, the importance of product/market fit), so that this user proactively convinces other users to interact with the company's offering.

Although this communication map is not often found on growth hacking discussion, growth hackers are well aware of it. Aaron Ginn is one such example, by discussing the hack from the users' perspective. Ginn argued that users will seek to solve their own problems, until their benefits exceed the costs. Users' decision making process is then a continuous evaluation of the perceived benefits and costs of a new option, along with the costs of changing. If the former can exceed the latter, and presents a new option that is better than the current one, it drives the change (Ginn, 2012a). This goes in line with the aforementioned academic research on the subject, signaling that value tradeoffs may play a key role in the effectiveness of a growth hack.

This kind of behavior is unequivocally related to word-of-mouth marketing (WOM; also eWOM – electronic word of mouth), which is present in each individual interaction, and exerts a side-to-side effect that shapes these communications. If one analyzes this process not at the individual level but at a global scale, considering potential millions of interlocutors and an ever-growing WOM effect, a new dimension of communication can take place – virality – which is deeply related to another central marketing concept, viral marketing. These two marketing concepts are notoriously related to the hack process and, to that extent, they are further scrutinized below.

2.7. Word of Mouth

Word of mouth is a fundamental marketing concept and strategy that has been shown to have an effect in the way consumers create expectations (Anderson & Salisbury, 2003), exert pre-usage attitudes (Herr, Kardes, & Kim, 1991), make choices and purchase decisions (Arndt, 1967) and create post-usage perceptions (Bone, 1995). Several studies have tried to understand why customers proactively spread the word regarding a company's product or service that they have bought or experienced. Some of the most relevant factors to account for are

extreme satisfaction or dissatisfaction (Maxham & Netemeyer, 2002), brand commitment (Dick & Basu, 1994), length of brand relationship (Wangenheim & Bayón, 2004) and novelty of the offering (Bone, 1992). Literature suggests that WOM offers the optimal customer acquisition strategy for firms, namely because it makes companies face a better superior long-term profitability outcome, meaning that less marketing dollars are spent in customer retention and, notwithstanding other factors, shareholders' value is higher (Villanueva, Yoo, & Hanssens, 2008).

Regarding WOM, De Bruyn & Lilien (2008) proposed a multi-stage model to understand WOM influence through viral marketing. In this quantitative study, they discovered three main factors to account for (relating to the relationship between the person that sends the information and the one that receives it): tie strength, perceptual affinity and demographic ties. Chu & Kim (2011) also studied factors that influence eWOM effectiveness, from the perspective of social networks (SNSs). Their findings indicate that the main factors that promote eWOM effectiveness in SNSs are tie strength, trust, and susceptibility to interpersonal influence (how likely a person is to be influenced by others to a certain behavior). Hsieh, Hsieh, & Tang (2012) explored how eWOM effectiveness was affected by diverse factors in online video. Here, the authors identified that awareness of persuasive intent displays a negative influence, while perceived humor and multimedia effects (how rich the content is in terms of special effects and overall quality) displayed positive impacts. Another relevant analysis of eWOM behavior was performed by Hennig-Thurau, Gwinner, Walsh, & Gremler (2004). These authors' findings were that the main drivers of eWOM were consumers' desire for social interaction and economic incentives, preoccupation for other consumers and the possibility to enhance their own value. This study also points out that consumers are a heterogeneous group in regards to their motivations to engage in eWOM, and suggests four segments: "self-interested helpers" – which represented 34% of the study's respondents and relates to consumers that are mainly motivated by economic incentives – "multiple-motive consumers" – deeply influenced by all the proposed motives – "consumer advocates" – greatly concerned for other consumers – and "true altruists" – highly motivated to help both companies and other consumers, representing 27% of all respondents.

A literature review by King, Racherla, & Bush (2014) identifies the core aspects relating to eWOM through two personas – the message sender and the receiver – through four dimensions/quadrants: why senders do eWOM, what senders receive from it, why receivers rely on it and what receivers get from it. In this overview, the authors identify that the major drivers for senders to engage in eWOM are self-enhancement, opinion leadership, self-efficacy, individuation and social altruism. The results of eWOM for the senders are learning, social capital and reputation and impression management (manage how users can be impressed by the content/product). As for the receivers, literature suggests that the motivations to seek a message are to reduce search efforts, reduce risk, have social assurance and enact negativity bias (have a feel on the opinion of extremely satisfied or dissatisfied consumers), while the results from eWOM are a change in the willingness to pay, in brand loyalty and trust and in consumer engagement.

Sundaram, Kaushik, & Webster (1998) also analyzed users' motivations to engage in positive WOM (pWOM) – when users express positive attitudes towards the company – and negative WOM (nWOM) – when users' attitudes are negative. Main found pWOM motivations were altruism regarding the receiver, positive perception of value/price, product involvement, self-enhancement, and company altruism (triggered mainly by positive client-employee interactions). Negative WOM was mainly due to altruism, vengeance (triggered by unsatisfactory employee performance), anxiety reduction (due to poor value perceptions), and advice solicitation.

2.8. Viral Marketing

As for viral marketing, it relates to the dissemination of a message with exponential proportions. It is usually regarded as a new dimension of eWOM, mainly sustained by social media and the Web 2.0, where millions of people continuously interact and share information. If a great number of people shares a piece of information, it can quickly become viral, reaching millions of receivers with ease. Companies began to see the potential of viral marketing as a cheap marketing channel and, as countless companies now extensively use this channel, shared content now needs to have a differentiating aspect, in order to motivate unpaid peer-to-peer dissemination (Camarero & San José, 2011). To this extent, main aspects relating to virality have been extensively studied, and some studies are presented below.

Berger & Milkman (2012) identified that positive content (i.e., content with a positive message) is more likely to become viral (as opposed to negative content); content that highly appealed to emotion is more viral

(both for positive or negative emotions); practical, useful, interesting and surprising content is also more likely to become viral. Ho & Dempsey (2010) analyzed factors that contribute to viral marketing in terms of the persons themselves. Specifically, they studied personal user motivations and found that users who are more individualistic (i.e., users that seek to be included in a social group) and more altruistic (users who have a need for social affection) are more likely to share content and thus promote virality. Haryani et al. (2015) identified that key aspects that lead to virality are richness of information; content variety; content delivery timing; not showing intent to manipulate behavior; content clarity; brand familiarity. Phelps et al. (2004) also found that users are motivated by exciting, helpful, joyful or satisfactory content, and will pass a message along if it will bring value to the receiver, if there is affinity with the receiver and if the receiver is contextualized with the content. Camarero & San José (2011) argue that tie strength, trust reciprocity and mutual identification promote virality from a peer-to-peer perspective, while from a content-to-peer perspective, curiosity, creativity, positive content, and pleasant memories are also strong contributors, and negative feelings, lack of differentiation, sense of rejection and intrusiveness strongly diminish virality attitudes.

2.9. Viral Loop

Much as it has been presented in the previous section, viral marketing has been methodically analyzed from a communications point of view, both peer-to-peer and peer-to-content. Curiously enough, the many advancements business model propositions have shed light into how virality exists as an inherent characteristic of the business model, in its customer relationships dimension. Steve Blank and Bob Dorf's "Start-up Owner's Manual" stresses the importance of customer relationships channels, breaking them down to three phases: get – creating customer demand – keep – giving customers reasons to stay with the product – and grow – selling more to existing customers and encouraging them to refer others. The authors underline that these three dimensions are some of the most important hypothesis every start-up must test, both in physical and virtual channels, as selling to existing customers is much easier and cheaper than acquiring new ones. Dissecting into the dimensions, each presents a series of sub-steps, in a funnel-like fashion (Blank & Dorf, 2012). **Figure 4** below notes the get-keep-grow funnel for web/mobile channels.

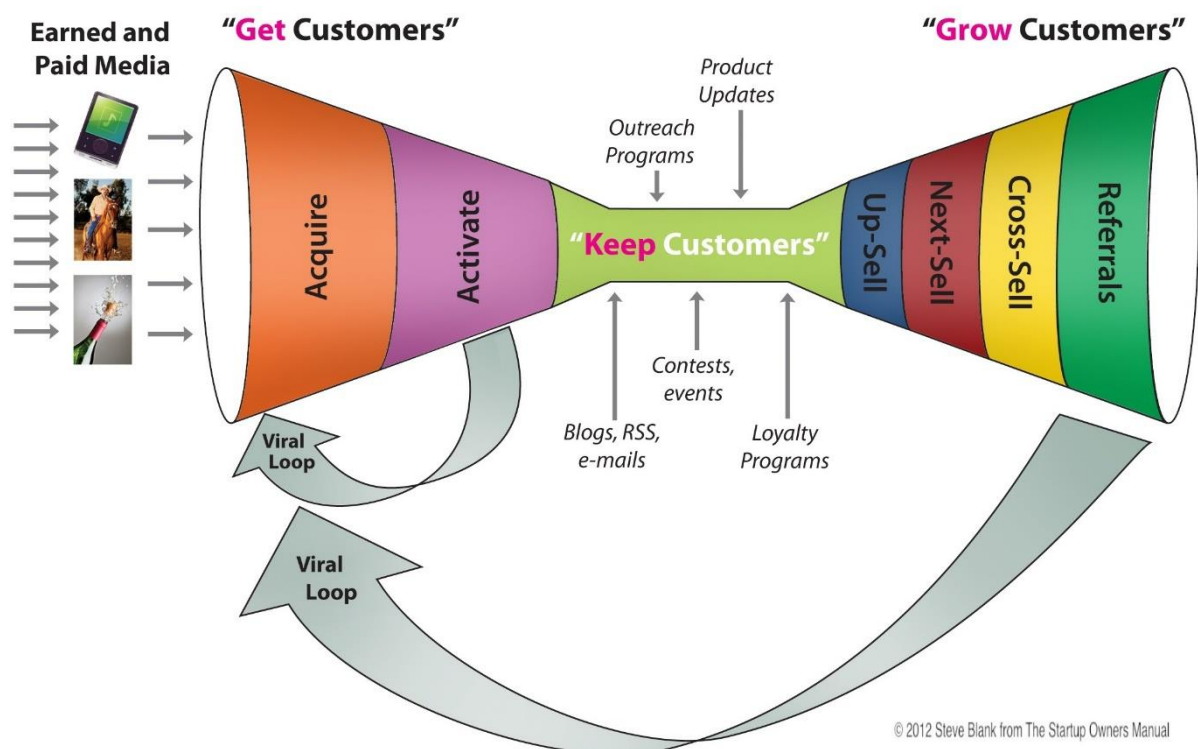


Figure 4. Detailed view on the get-keep-grow funnel, as proposed by Steve Blank, with the main steps a customer takes after acquisition takes place.

Each stage of the get-keep-grow funnel provides start-ups with insights on how to manage their customer relationships throughout the whole process. It is by assessing each of the funnel's steps that a start-up can consider the costs of each hypothesized customer acquisition method, as well as how much money the customer is expected to generate during its lifetime of doing business with the company. Each of these concepts is a vital metric to every start-up – the customer acquisition cost (CAC) and the customer lifetime value (CLV). These metrics enable start-ups to do a first assessment on the business viability, as early as during the business model construction phase. If the CLV is superior to the CAC, the business appears to be viable, so long as the hypothesis stay strong.

Not entering into much detail on each funnel stage, it is nonetheless noteworthy to consider the concept of viral loop, present both in the get and grow stages. According to Blank & Dorf (2012), this viral loop occurs due to early customers inviting friends to explore the new product, due to their own positive experience and/or incentives – such as referral programs, sharing of free trials and discounts, and contests. The core of a viral loop is creating a customer relationship that induces virality. This virality can then retroactively feed the get-keep-grow funnel, and serve the ultimate purpose of lowering CAC considerably – if existing customers are proactively acquiring new customers, this presents a zero-cost channel of acquisition that, depending on network effects, can drastically lower the CAC, and make the business viability surge.

2.10. Overview and Critical Analysis

Although the concept of growth hacking, all by itself, is considered novel, its process notes some similarities with better studied concepts. The intended result of a growth hack is conceptually similar to the viral loop effect proposed by Blank & Dorf (2012) – having existing customers proactively refer new ones.

If one looks at the dynamics of the growth hack itself, as seen from a value-based communication process, core concepts of value propositions, value perspectives, WOM and viral marketing all appear to fit in almost seamlessly, and may help explain the decision-making dimension that lies beneath.

Due to the complexity of the concepts of eWOM and viral marketing, literature on these topics was examined following a concept-driven systematic review methodology, analyzing multiple concepts from multiple authors (Webster & Watson, 2002). This allowed visualizing the factors that influence both of these concepts, which, in turn, enables a discussion about which factors should be taken into account in a communication-based process, much like the one that appears in a growth hack. With this in mind, **Table 1** below summarizes these factors and the frequency with which they appear in literature.

A critical analysis of the results presented in **Table 1** below suggests that there are similarities between eWOM and viral marketing (which is evident given that eWOM is one of the main contributors to viral marketing). Specifically, it seems that eWOM and viral marketing appear to be most effective when the peers (the individuals that communicate with one another) have a close personal relationship and share some interests (it is noteworthy that this effect can be negative if the homophily, i.e., the degree of shared interests, is too high). Additionally, looking at the way these peers interact with content, it seems that content must be rich, positive/humorous and bring something of value to the receiver (be it a strong emotion, useful knowledge or novel information). These effects may be maximized when the person who is going to share the content (the sender) seeks some sort of social inclusion (asserting himself/herself in their social circles), social altruism (sharing content for the benefit of others), economical benefit and potential to increase self-worth.

These eWOM and viral marketing findings present a series of factors that shape users' likeliness to follow through with the intended growth hack goal (proactively convincing others to try a product) and the overall magnitude of this process. These inputs strongly influence each one-on-one communication that occurs in the immense growth hack process and, as so, must be considered in an attempt to explain the workings of a growth hack.

Table 1. Key factors influencing eWOM and viral marketing. Effects are labeled as positive (+) or negative (-).

Article	eWOM								Viral Marketing								
	Peer-to-peer				Content-to-peer				Peer-to-peer		Content-to-peer						
	Personal relationship	Homophily	Trust	Influence	Social Interaction	Previous Contact	Persuasive intent	Humor	Content Richness	Economic Incentives	Social Inclusion	Social altruism	Positive content	Appeal to emotion	Usefulness	Newness	Manipulative intent
De Bruyn & Lilien (2008)	+	+															
Chu & Kim (2011)	+	-	+	+													
Hsieh, Hsieh, & Tang (2012)							-	+	+								
King et al. (2014)	+				+	+					+	+					
Hennig-Thurau et al. (2004)					+					+	+						
Berger & Milkman (2012)													+	+	+	+	
Ho & Dempsey (2010)											+	+					
Haryani et al. (2015)															+	+	-
Camarero & San José (2011)	+	+	+						+				+	+		+	-
Phelps et al. (2004)	+	+	+			+		+	+				+	+	+	+	
Sundaram et al. (1998)						+				+	+				+	+	-

3. Research

3.1. Research Gap

Given the relative novelty of growth hacking's concept, current proposals, both from marketers and researchers, mainly focus on finding an accrued definition of growth hacking and the profile of a growth hacker. However, during the last few years, marketers and researchers have come forward with an initial proposition of a growth hacking process. Existent hypotheses are not unanimous on the process as a whole, but are still capable of demonstrating how growth hacking should be addressed, from setting objectives to achieving a successful hack.

On the research side, only one study was found that focuses on growth hacking. This novel research by Herttua (2016) proposes a macro process for Growth Hacking in four stages, but it still doesn't address how the "hack" step itself works. Envisioning growth hacking as a value-centered process with an underlying communication dimension (peer-to-peer and content-to-peer), an analysis of literature on eWOM and viral marketing gains significant importance. While the extensive research on these dimensions helps explain how content grows organically and may grow exponentially, it frames this knowledge on a broad dimension, with no tangible connection to a company's offering (its products and services). It quickly becomes apparent that, while studies show how a company can introduce eWOM and virality in its content (mainly its promotional messages), no studies were found that analyze how these marketing elements can be used to define how a company's offering can be shaped, allowing this offering to trigger eWOM and virality on its own – a value and product/market fit approach.

An overview of the topics studied in the main analyzed literature is found in **Table 2** below.

Table 2. Overview of the research methods and subjects under study by key research found in the literature concerning viral marketing, eWOM and product/market fit.

Article	Research Method	Subject Under Study		
		Viral Marketing	eWOM	Product/market fit
Herttua (2016)	Quantitative			X
De Bruyn & Lilien (2008)	Quantitative + qualitative	X	X	
Chu & Kim (2011)	Quantitative	X	X	
Hsieh, Hsieh, & Tang (2012)	Quantitative	X	X	
King et al. (2014)	Literature Review		X	
Hennig-Thurau et al. (2004)	Quantitative		X	
Berger & Milkman (2012)	Quantitative	X	X	
Ho & Dempsey (2010)	Quantitative	X		
Camarero & San José (2011)	Quantitative	X	X	
Phelps et al. (2004)	Quantitative + qualitative	X	X	
Sundaram et al. (1998)	Quantitative + qualitative		X	
Haryani et al. (2015)	Quantitative	X		
This Thesis	Informed Argument	X	X	X

As illustrated in the table, it seems as though no study at the present date has focused in integrating viral marketing and eWOM strategies into a company's offering (it's product/market fit), in order to promote a proper, sustainable growth hacking strategy.

Now taking into account the marketers side, there is an impressive amount of content online that dwells into the grey area of growth hacking. From thorough, hands-on guides to more unstructured tips, an overview of these is shown in **Table 3** below.

Table 3. Overview on how growth hacking is analyzed by different marketers.

Authors	Growth Hacking Analysis			
	Growth Metrics & Goals	Growth Hacking Process	Mapping Value and Decision Making	Growth Hack Process
Patel & Taylor (2016)	X	X		
McClure (2007)	X			
Holiday (2013)	X	X		
Ginn (2012)	X			
Vars (2016)	X			
Growth Tribe (2016)	X	X		
Online Forums (scattered information)	X	X		X
This Thesis	X	X	X	X

As noted above, it appears that every piece of content that remotely links to growth hacking seems to be heavily centered on the importance of metrics and goals, as an advice to entrepreneurs to be more data-driven and methodical. Some more complex analyses propose a framework for growth hacking, still with a heavy focus on analytics and the importance of iterating.

Only by diving deep into forums and other discussion boards – that count with the participation of actual growth hackers – can one begin to find information on the growth hack, and a concern for decision-making. Here lies the true richness of insights into this process, as it comes from growth hackers’ own struggles, and serves as evidence for the little – if not inexistent – knowledge on this dimension. As it stands today, this information is scattered and not at all easy to access. Several good propositions lie between a chaos of information, and have not really evolved as one would expect. Ellis’ own proposal of the ICE score was born out of growth hackers’ need to prioritize experiment ideas. Yet, to this day, it remains under-explored.

A high level comparison between the process proposed by Herttua et al. (2016) and the ones suggested by marketers also raises a conceptual question on the nature of a growth hack. While the former argue that growth hacks are product feature based experiments, the latter do not narrow it down to the product dimension. Thus, it also appears that there is some incoherence on construing the true nature of a growth hack.

There seems to be no question that the gaps on knowledge of growth hacking exist. These gaps reach substantial proportions for the growth hack process itself. Little is known, and it seems the time is right to put the great amount of rich information on the subject to good use.

This thesis proposes to merge existing insights from growth hackers with studied factors that model growth events (eWOM and Viral Marketing), mapping the growth hack process as a whole. Adding to that, it will seek to identify relevant factors in the communication process, pursuing an understanding of users’ decision-making process, in a way that can empower growth hackers to make the best of their own decision making, leveraging growth opportunities.

3.2. Research Questions

The proposed main research question for this thesis is:

- What type of strategies can a start-up employ to leverage its growth hacks?

Further scrutinizing the main research question, specific research questions to pursue are as follows:

- How do growth hackers understand the growth hack process?
- What are the workings of a growth hack?
- Are only product-based experiments suitable growth hacks?
- Which communications occur during a growth hack?
- Which factors are influencing decision-making in a growth hack?
- What should growth hackers do to leverage growth opportunities?

4. Methodology

4.1. Research Design

As identified during the literature review, the specific knowledge on the process of a growth hack appears to be still confined to the minds of growth hackers, and is otherwise scattered in online discussion boards. Seeing growth hackers' experience as a valuable asset, a qualitative research methodology was conducted. Here, the main objective was to dive deep into the richness of information provided by growth hackers. This methodology approach seemed to be appropriate, since qualitative research aims at understanding phenomena in a natural setting, understanding the experience and viewpoint of the participants (Denzin & Lincoln, 2005; Pope & Mays, 1995).

In order to conduct a proper analysis, the research was structured according to the good practices encountered in the literature. Due to the inherent constraints of the contact with growth hackers (as will be explained further), an individual approach was taken, in the form of interviews. This gives leeway to the interviewee, allowing for deeper levels of response richness, and uncovering opinions, experiences or values that might otherwise be unobtainable.

After obtaining rich first-hand data from interviews with growth hackers, a consecutive methodology was employed, with the primary objective of utilizing second-hand data, cross-referencing it with the interview's results, and put forward more grounded propositions: an informed argument. This method allows for a formulation of a proposal and a critical argumentation of said proposal, based on relevant literature. Additionally, it is suitable for cases where the subject under study is innovative, and where other forms of evaluation may not be feasible (Hevner et al., 2004; Peffers et al., 2012).

As mentioned, the presented arguments were, as much as possible, based on findings from the qualitative research, which added to the literature-based backing, forming more coherent and overall strong arguments. These sought to put forward some debatable hypothesis surrounding the workings of a growth hack, as an incentive to further research and discussion.

An informed argument will then enable a thorough analysis of the proposed model from different perspectives, which will assist in formulating a solid proposition, which can add to existing knowledge while also being upheld by the literature. The development of a sustained "hack" decision-making framework can greatly contribute to the incipient literature on growth hacking – a concept of growing importance in marketing and business. This proposition could be one of the first steps into a formalization of the process of low-cost, fast-growth in start-ups, and will hopefully serve as a basis for the development of "good practices" for proper growth hacking.

4.2. Interviews

The chosen interview design was the use of standardized open-ended questions. This approach presents a series of structured questions, which are asked in an equal manner to all participants. This choice of question formulating enable interviewees to contribute with as much detailed information as they please, without any global restrictions. Not only does this grant participants absolute control on their answers – enabling them to go into detail on their own viewpoints – but it enables doing follow-up questions, as necessary (Turner, 2010). With the main objective of being able to extract a richer amount of information without compromising interview length, a strategic choice of asking only a small number of broader questions was made. The interview preparation was conducted according to the principles suggested by McNamara (2008), but with some limitations in terms of the interview setting, as will be addressed further on.

Participant selection was mainly done by filtering candidates that work as a growth hacker. To that extent, a LinkedIn research was conducted, filtering its database for profiles which state "Growth Hacker" as the job title. Using LinkedIn helped ensure the veracity of this filtering, as the social network serves as a professional profile, and one where information may be considered truthful. The tool Skrapp was used to extract the names and emails of 168 individuals with the "Growth Hacker" title, which were saved to an offline database. Additional manual research on Google, using the string "I am a growth hacker", led to finding personal webpages of 34 other growth hackers, which were also added to the database, totaling 202 prospects. All individuals were approached by email, by means of a strategically structure message, using email marketing principles to ensure a higher response rate. These were: a clear and catchy subject line; personalized email body (addressing each individual by name); being

transparent and personal, presenting the needed favor (Lindemann, 2016). In order to send individual personalized emails in bulk, the tool Gmail Mail Merge was used. Emails were pre-tested with 4 respondents and improved for clarity before being sent in bulk. Email structure can be found in **Annex A**.

After the first responses came in, most prospects showed availability to talk via Skype or phone call, and a few manifested being available exclusively by email. This marked one of the biggest limitations in terms of the interview design, but was nonetheless considered a suitable approach, since the geographical distances between interviewer and interviewees allowed no better option. Skype and similar tools have been shown to be viable alternatives to personally administered interviews, and so it is not expected it placed any additional obstacles in the research design (Janghorban, Roudsari, & Taghipour, 2014). In the cases where interviews were only possible by email, these were properly structured, according to the guidelines by Oakleaf (2006), some of which were already mentioned above (personalized emails, etc.). As so, email interviewees were clearly contextualized in the research scope and objectives, given simple instructions on how to place their answers, and informed on deadlines and confidentiality. Email follow-ups were sent as required in each case. Interviews were conducted in English and took place without any issues, in the period ranging from July to August 2017. All respondents were clearly informed about the publication details for the research and confidentiality terms.

A total of eight main questions were asked, with first questions being from more general subjects, and latter ones being somewhat more specific, and branching into sub-questions. The full contents of the interview are presented in **Annex B**. As for the rationale behind it, questions were structured as follows:

The first two questions centered on the general aspect of ideation and use of support materials, in the context of conducting growth experiments. Here, the main objective was to assess if existing support materials were proving to be of value to growth hackers, and also to first understand their role in idea generation, if any. Additionally, asking for ideation sources enables a clearer view on the broadness of the ideation process, which may present implications downstream in the course of the growth hack.

Questions three, four and five concerned the issue of idea prioritization and its relative workload in the growth hacking process. These derived from the mentioned gap in both the literature and online guides on growth hacking, that consistently fail to venture into the practical side of growth experiments, foregoing a deeper analysis on the methodology behind it. The intended result was to assess if growth hackers employ any sort of reasoning behind idea prioritization, and uncover potential tools and strategies to address that need.

The sixth and seventh questions brought up the lack of consensus between product-centered versus broad growth hacking frameworks. Its purpose was twofold: first, to raise existing insights growth hackers have on product-centered hacks, concerning their importance, potential impact and success indicators; second, to try to find a settlement for the blatant divergence of standpoints between researchers and marketers in what concerns the scope of growth hacking as a whole.

The last question inquired about the importance of theoretical research for growth hackers and the industry. The main purpose behind asking such a subjective question lies in revealing the true perspectives of growth hackers concerning emergence of literature on the subject of growth hacking – or the lack thereof – for their own work and for the overall growth mindset.

After the collection of all responses, oral interviews were fully transcribed and, together with written interviews, organized into individual documents, one per respondent, all with the same structure. This raw data was then imported to the Nvivo qualitative analysis software, a favored software among researchers from the qualitative field of study across multiple domains of knowledge (Wong, 2008).

The coding procedure was conducted according to the guidelines by Denzin & Lincoln (2005). As so, the attitude towards the data analysis was an exploratory one, with a focus on keeping track of emerging ideas and concept relationships. An initial screening of all the data was conducted using the platform, and annotations were taken as the process evolved. Given the nature of the research, each individual response was considered as a unit of analysis, and no grouping of answers were considered. References in responses that followed a pattern were then identified and coded into separate nodes. A grouping of nodes then took place, so as to organize ideas by their core logic, which ultimately led to the creation of seven “parent” nodes, each with strong connections to each response. Coding nomenclature was chosen by topics, and the seven nodes were labeled as follows: “materials”; “ideation”; “prioritization”; “success predictors”; “product-pull”; “growth hacking broadness”; “research importance”. As these nodes were not further narrowed down, a “broad-bush” coding method was employed, giving significance not to the specification of data, but to the main dimensions at stake (Bernard, Wutich, & Ryan, 2010).

As descriptive factors such as demographics were not under the scope of the study, they were not analyzed in detail.

After the coding structure was found to be consistent, visual representations of the concepts were created, with the main objective of simplifying the comprehension of large and small-scale features in the data (Ware, 2013) . To this extent, two different visualization techniques were used: a simple node representation, and a word frequency cluster representation by nodes. The former acts as a very simple way to showcase the dimensions and their sub-factors, and the latter intends to portray the relative relationships that exist between every node's sub-factors. Both enable a critical analysis, as is presented in the sixth chapter.

5. Results

From the 202 sent emails, 122 were rejected by the server due to the email not being active. From the 80 that got delivered, a total of 23 answers were received, which represents a 29% rate. From these 23 respondents, 14 agreed to Skype and phone calls, where the others were only available to answer by email. From the total 23 possible interviews, 19 were conducted, with the remaining 4 not being possible due to time constraints from those prospects. Overall interview success rate was 16% (considering the universe of 80 valid email recipients).

Oral interviews (Skype and phone call) ranged from 20 to 40 minutes, averaging at 28 minutes.

Below, the overall results for each interview topic are presented, with information from both oral and written interviews. The full interview structure is presented in Annex B. Samples from answers by Skype, phone call and email can be found on Annex C, D and E, respectively.

Growth Hacking Support Materials

All respondents showed to be aware of the existence of growth hacking guides, and the vast majority of them reported that these online guides actually fulfill a need of every beginner growth hacker: knowing where to start. It was unanimously reported that articles from prominent growth hackers the likes of Sean Ellis and Andrew Chen have been a major influence on the perspectives of rising growth hackers. Most interviewees also indicated that books such as “Growth Hacker Marketing” (Holiday, 2013) have been a very positive read, by setting the ground rules on start-ups, business models and value.

While the influence of renowned growth hackers can be easily perceived, opinions differ in what concerns guides by online marketers. The majority of respondents was familiar with the guide by Patel & Taylor (2016), but not all were convinced of its accuracy and value. Respondents seemed to mention it only as an introductory tool, but ever suspicious of the works by content marketers, that are known to often be written specifically to generate millions of views (often referred as “clickbait”) (Frascella, 2015).

Other than written materials, several respondents underlined the importance of networking as a means to get better acquainted with the world of growth hacking. Networking was shown to occur on different levels; some growth hackers stated that internal networking (i.e., with other start-up employees) was an easy, accessible and renewable source of information, and served the ultimate purpose of expanding the growth mindset from the growth team to the product, marketing and operations teams, overall contributing to fostering the start-ups own growth mindset. Others indicated a higher level networking, either by reaching out to other start-up employees, or by identifying successful growth hackers with vast amounts of experience, and seeking to connect and sip on their knowledge, in a mentorship-type approach. A great number of respondents also stressed the importance of discussion boards. Forums such as growthhackers.com were consecutively mentioned across the board, with every other interviewee underlining the sheer value of the information that is spread across such platforms. The frequent sharing of case studies, Q&A’s, AMA’s (“ask me anything”, a discussion format where a knowledgeable individual shares his/her experience with other people, by responding to their questions) and other sharing topics are seen a vital part of the growth hacker role. The networking that occurs at this level not only can serve as inspiration, review of good practices and success/failure assessment, but is overall seen as a reasonably trustworthy source of information, and one where different professionals can freely express their thoughts, contributing to the community as a whole.

The use of tools was mentioned by a few interviewees, given their importance on the job of every growth hacker. Most frequently mentioned tools are the ones used for analytics purposes, and the overall feeling is that these serve as a major asset, and one which should be used as often as possible. As will be mentioned ahead, the sheer importance of analytics in the role of a growth hacker is not easily undermined.

Ideation

A growth hack, by its very definition, is an experiment that tests an idea. Ideas are, then, the raw material that feeds the growth hacking process, and the ones which can greatly influence outcome and the process itself. Given every growth hacker’s need to conduct new experiments over time, the amount of ideas required are not modest. As so, respondents were asked about their ideation procedures. Across the board, case study analysis was

the most often mentioned source of ideas, with respondents again stressing the need for networking with other growth hackers and start-up employees, trying to analyze real examples of growth hacks conducted by other companies. The mentality here seems to be “learning from the mistakes of others”, while also trying to uncover which factors lead to success cases, and the extent to which they may be replicable or adjusted to a different start-up’s panorama. Scouring the web for case studies and similar articles seems to be one of the routines by almost every growth hacker. The time spent reading, listening and seeing these case studies is agreeably put to good use. As some respondents noted, one’s creativity “goes only so far”, and so new sources of inspiration, as well as different methodical approaches, as welcomed.

Another network related procedure comes in the form of brainstorming. With the advantage of being possible to employ internally – that is, creating brainstorming sessions and ideation workshops within the start-up – this was mentioned as one of the richest and simplest ways to feed the growth hacker’s hunger for ideas. Creativity, as will be seen below, is one of the key elements to the growth hack process, and brainstorming, by itself, invites out-of-the-box ideas, by enticing the dreamy element of ideation. Again, online discussion boards were mentioned as one very effective medium to conduct brainstorming. The heterogeneity of online discussion participants acts as a catalyzer of unprecedented ideas, largely increasing the horizons of growth hackers. This “trade” of ideas and experiences is seen as an invaluable asset in the idea-generation phase.

An alternative approach to the ideation process is instigating creative thinking as much as possible. Some interviewees attested for the effectiveness of breaking a problem down to its many components, and looking at each single one, connecting different concepts, proposing different uses or even trying to match contradicting notions, in an extreme attempt to foster creative thinking. It was unanimous that creativity is an innate characteristic of every growth hacker, as the concept of growth hacking comprehensively relies on innovation and disruption.

Analytics was a top contender for ideation sources. Not only being seen as a tool, some respondents detailed that analytics can serve as one of the most valuable inputs in the ideation phase. Although requiring sufficient knowledge on the tools and metrics themselves, growth hackers can seek to see beyond the raw data, interpreting metrics, and feeding them to the idea generation. As explained by some interviewees, metrics are deeply related to users’ behaviors, and often uncover latent actions that would otherwise get lost amidst all other information. These latent actions and needs can often lead the growth hacker to a surprising realization, and trigger the test of a new variable.

A few respondents felt the need to underline the importance of instinct as one reliable source of ideas. “gut feeling” as mentioned as being a frequent source in the ideation process, and can be seen as a reflection of growth hackers’ own experience. One respondent even boldly claimed that his most successful experiments are the ones almost solely based on pure instinct.

A smaller number of participants emphasized that the feedback from users is one of the most reliable yet underused sources of ideas. These are thought as being of high reliability due to coming directly from the person to whom the growth hack will be “aimed” at. As one respondent clearly put it, “typically, for early stage start-ups, you focus more on qualitative stuff like talking to customers, understanding how they use the product, and that would be the best source of new ideas”.

Prioritizing Growth Hack Ideas

The need to prioritize ideas is one that is not clear on both literature and online discussions. When addressed the question if they found the need to have some prioritization process, only one respondent answered negatively. All other respondents seemed to be convinced that prioritizing can greatly improve the workflow of a growth hacker, by enabling more informed decision-making, which will then reflect on the proceeding of the experiment and ultimately its result.

As for how this prioritization is usually emplaced, the consensus pointed mainly to two factors: ease and impact. Regarding the ease, several respondents stated that the whole objective of growth hacking is being able to achieve significant growth at a very low cost. As so, a successful hack is inherently evaluated by its cost – both in terms of time and money – or, in other words, how easy it is to implement. This serves the additional purpose of making the growth hacker’s life a little easier, by placing a great deal of importance on hack ideas that can be employed swiftly and without many requirements. This goes in line with the go-to example in the guide by Patel

& Taylor (2016): if a given hack choice falls between sending out a mass email, or building a whole new feature from scratch to test for the same goal, the first option would be a better choice, as it takes the least time and effort. From the start-up's perspective, this is also a welcomed choice. Funds are most often than not insufficient, and it is no surprise that choosing to undergo expensive hacks can represent a threat to the start-ups very sustainability. A commonly mentioned concept was "optionality" – small investments with the potential to generate sizable results. This was referenced as the core mentality behind choosing hack ideas.

An also frequently mentioned factor for prioritizing ideas was their potential impact. Several interviewees acknowledged that they would often try to envision the potential impact of each idea, qualitatively evaluating what the potential outcome could be. Some suggested that this could even be employed quantitatively, hypothesizing how the main KPI's (key performance indicators) could fluctuate as a result of a successful hack. Here, the term "virality" and "network effect" were often employed, indicating that the idea's potential is often linked to its ability to generate viral responses, which can have a considerable magnitude. It should be noted that this analysis of impact can be linked to the growth hacker's own instinct, as the nature of the qualitative analysis of the potential impact is severely modelled by the analyst's own perspective on the issue.

Confidence was the third most frequently discussed factor for prioritizing ideas. Again linked to instinct, confidence is a measure of how likely the growth hacker finds the experiment to succeed as expected. Many respondents asserted that this confidence can be majored by including data from previous experiments or insights from analytics, overall contributing to strong base assumptions. Others also stressed the importance of knowing the intended audience and channel well, as doing so empowers the growth hacker to somewhat predict how the message from the growth hack will propagate.

As the most attentive would note, these three factors are, curiously, exactly the ones that Sean Ellis proposed in his ICE score to prioritize hack ideas. As a matter of fact, more than one participant purposely mentioned Ellis' framework as a useful tool for doing this prioritization. In one case, a participant revealed that he used a variation of the ICE score – without referencing the exact name of the used framework – which actually goes in line with what was found during the literature analysis. Variations of the ICE score were found in online forums, and it seems as though they have been passing from one growth hacker to another, as the need to prioritize ideas is a strong one.

Growth Hack Patterns

This research fortuitously had the advantage of counting with the participation of growth hackers that have been doing real experiments and were willing to share their own experience. As so, accessing each individual person can bring value on its own, but by cross-referencing responses, the emergence of patterns can be of utmost importance. With this in mind, one of the questions – arguably one of the most challenging ones – asked each growth hacker to try and identify patterns in the most and least successful growth hacks they had undertaken in the past. Fortunately, the vast majority of participants felt capable of retrospectively analyzing their experiments, and summing up the main factors that led to success. The many responses showed a clear pattern: four main factors were thought of as being responsible for good hack results: solid assumptions, product-market fit, niches and new channels.

The unanimous choice of factor can seem an obvious one – having solid assumptions before executing the experiment. However, the frequency with which most respondents mentioned it successfully enhanced its importance. As many argued, having clear data, which is unmistakably understood from analytics results, is a must for every experiment to succeed. Working with cloudy data, wrong metrics, forced analytics or misreading can quickly condemn any otherwise good experiment. As often mentioned, growth hackers must possess the self-discipline to treat data properly, giving it the careful thinking it demands. Like stated above, many feel that properly backed analytics can often pave the way to finding latent needs and behaviors, and which generally help achieve better results.

Product-market fit was one of the main keywords of many interviews. It quickly became clear that growth hackers are embracing the value-oriented approach, and consider anything that doesn't contribute to product-market fit a waste of time and resources. As so, the amount of value a hack could present a user is seen as a determinant player in experiments that succeed most often. Again, conversations leaned towards the importance of being up close and personal with users, hearing their concerns, their pains, and proactively engaging in ways

to improve their experience. Maximizing user experience was denoted as being one almost surefire approach to getting users to follow along with the intended hack. Moreover, finding the proper incentives for the user to follow through with the hack's proposition was also seen as a vital part of fruitful experiments, and will be presented in the following section.

A subset of respondents felt the need to showcase the importance of finding niches and new channels as ways to achieve good experiments. The main argument was that doing hacks for too broad of an audience was often counterproductive, as the huge potential reach figures hid the fact that it is very difficult to appeal to a vast audience all in one hack. Then, some participants proposed that doing smaller, niche-oriented experiments can in fact produce a much more exponential effect. Addressing the interests of a niche is not only easier, it enables a clear view of specific channels that can be used to reach them, and helps ensure that the message is received in an indubitable and effective manner. These communities of users were referenced as an asset that growth hackers can explore to employ easy, cheap tests that can generate tangible metrics, if nothing more.

The talk on niches and communities of users quickly led to interviewees addressing the question of channels. A frequent argument when speaking of channels was the fact that standard ways of reaching users were of little to no value to growth hackers. New channels, where user base grows exponentially in a short period of time, present an excellent opportunity to reach users at a very low cost. At these initial stages, these channels are often not interesting enough for their paid media component, and so extracting value from the community can be a quick and cheap task. A respondent even explained by using the example of SEM and SMM – search engine marketing and social media marketing. These placed advertising channels work through a bidding mechanism, where the advertiser who bids higher on a certain keyword gets the right to show its ad. When such a channel is fairly recent, if the number of users is disproportionately higher than the number of advertisers, it is easy to take advantage of the bidding system, getting ads for valuable keywords for very low values. However, as the channel gains recognition and attracts a high volume of advertisers, bidding becomes increasingly more intense, and the channel quickly saturates, losing all its value for getting low-cost reach.

Product Pull Growth Hacks

In more than one interview, the question of product-pull arose as soon as when discussing the prioritization of ideas based on potential impact. Talk of “impact” and user-centered experiments never failed to lead to talk on product-market fit. From here on out, several participants focused on discussing how a great product-market fit is the very “soul” of a product-pull strategy, and the reason why this is the most sought after strategy.

“Referrals” was a term more often used than not across all responses. With examples such as Dropbox or AirBnB, interviewees often went through explaining how these start-ups were able to achieve such gigantic traction – by presenting a product good enough to proactively refer. Talk of referrals quickly shifted to a discussion on the important role of incentives. More than one participant argued that placing tangible incentives in front of the user was sufficient to motivate a sharing of the product, and that the sacrifice of offering the incentive was insignificant, when compared to both the referral alone, and the viral proportions it may attain. While there was no doubt that consumer-oriented start-ups could easily implement product-pull tactics to their products, the question arose if B2B (business-to-business) start-ups could also benefit from this mechanism, given its intrinsic orientation towards consumer-based channels.

Word of virality was also one that was intentionally repeated across the board. Almost every participant showed to be very familiarized with the concept of viral loops, and so at ease with it that they spoke of inducing viral loops as if it were common knowledge. Many of the previous discussions on channels quickly found their way into the scope of viral loops, and common arguments were that product-pull was nothing more than a manifestation of meticulously tested and polished viral loops, that found their way to the product, as a feature. Suggestions were then made that growth hackers should embrace the need of continuously prospecting and testing channels, in search for those where viral loops can be more easily induced, and lead to the intended virality effects.

A simpler, down-to-earth perspective on product-pull that was manifested by some interviewees was that case studies such as Dropbox and Hotmail showed mainly that these start-ups were successful in giving users a nudge to more effortlessly engage and socialize with other users, by means of presenting them some additional value. The notion of being able to share a product or incentive with others was an often stressed aspect, with some

respondents underlining that it is by stimulating the social dimension in a clever way that a product can find its way to friends of existing users more quickly.

An honorable mention was made to the role of innovation. As a few respondents put forward, leading examples of prosperous product-pull strategies are often based on disruptive approaches. The case of AirBnB was used to back up this premise, with the statement that it was not solely the referral mechanism, by itself, that grew AirBnB, but the disruptive concept that passed on as an attraction to users that didn't know it beforehand. Innovation was mentioned as being a driver of the product-pull, and one that start-ups, given their nature, should seek to foster.

Product-Centered versus Generic Growth Hacks

After a hefty debate on product-pull, the stage was set to engage participants with a discussion on the conceptual framing of growth hacking – the product-centered approach favored by researchers versus the generic approach presented by marketers. It was shown to be a one-sided battle. All but one participant favored to take the marketers' side, vehemently arguing that, while product-centered experiments are highly valuable and often produce the best outputs, they should not be used to confine the concept of growth hacking. As many reasoned, growth hacking should be seen as a mindset, and one which should be shared, as extensively as possible, throughout the whole start-up. Several examples were put forward to illustrate just how broad growth hacks can go: search engine optimization, landing pages, fake launches, fixing user onboarding, paid PR (public relations), among several others, painted a picture where growth hacking did indeed rise to a broad scope. Quickly, debate shifted to defining growth hacking as a whole, sustaining the proposal that any experiment that seeks to achieve high growth with little cost should be branded as growth hacking. Even the sole contender of product-based growth hacking did in fact acknowledge that the process can be applied at broader dimensions, but that it was at the product level that “real” hacks could be performed.

Importance of Research

As a closing question, and with the objective of understanding, first hand, how growth hackers perceive literature research on the subject, they were asked if they felt it mattered to them. Almost every participant clearly stated that research was very important, and valuable to their profession and industry. A deeper probing of their reasoning led to understanding just why this research is found to be relevant. As it turns out, growth hackers see three major benefits from theoretical research on growth hacking: inspiration, methodology and reliability.

Inspiration was the word that most quickly arose in almost every interview. As had been argued early in the interview process, one of the most agreed upon basis of growth hacking is creativity. Novelty is seen as one of the major factors that make the growth hacking “machine” push forward, and growth hackers state a great portion of their time is spent scouring the web, networking, brainstorming and stimulating creative thinking for sources of inspiration. A new source of inspiration – regardless of its form – seems to be welcomed without hesitation. Respondents blatantly state that, if nothing else, reading academic research on the matter of growth hacking serves the purpose of putting new perspectives to light, and finding new ways to do experiments.

After getting the matter of inspiration out of the way, respondents seemed more reticent in explaining how literature on growth hacking could server a greater purpose. However so, a viewpoint on the scientific method was referenced as a positive influence on the process. It seemed to be of agreement that, since the nature of a growth hack was scientifically based, it could be further scrutinized, and perhaps that would help put forward some good suggestions on methodological approaches. As one respondent put it, “information on growth hacking is very immature right now. Marketers are jumping on it because it is trendy, but nobody seems to be researching it, and so we have no other way to get information besides the marketers. There are probably a lot of rules and good practices that we should be applying, but no way to know them yet. It is hard for me right now to find great resources to use”.

An additional reason for endorsing academic research was based on the arguments some respondents made when regarding the “support materials” subject. These respondents state that, although some online guides on growth hacking are extremely thorough and great for beginners, most are written by content marketers, that are known for putting forward content with the primary intent of generating traffic. As so, it raises the question of

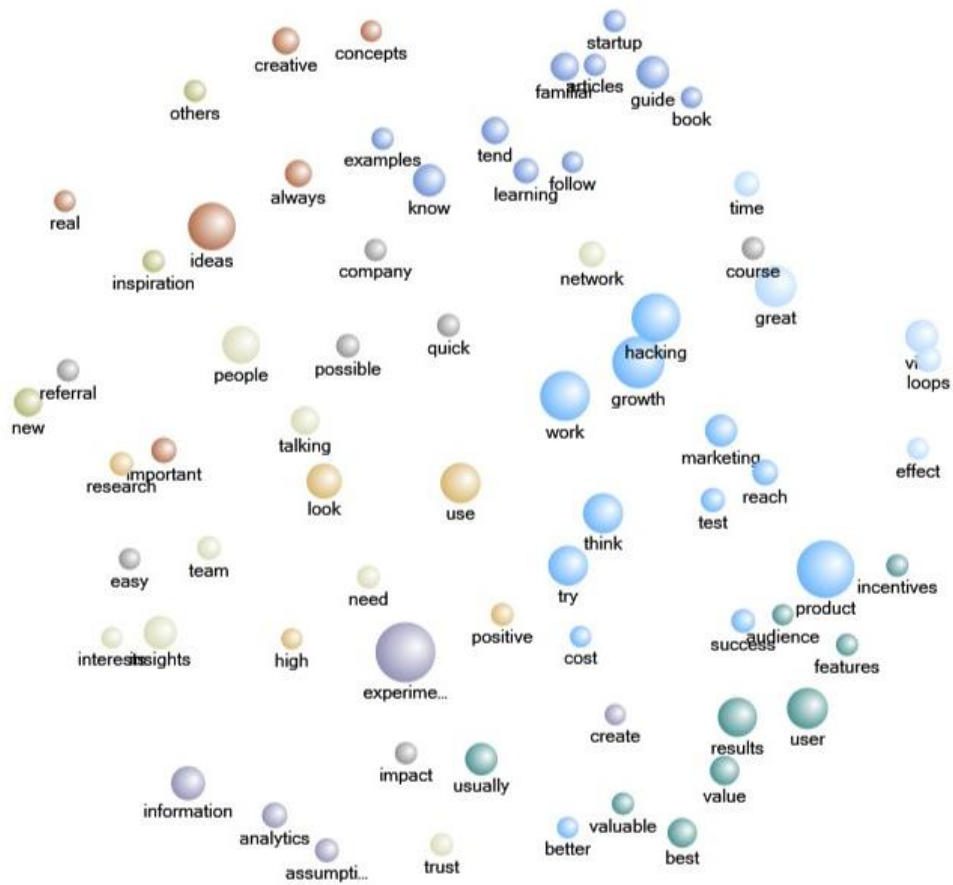


Figure 6. Cluster representation of most referenced keywords for all main identified nodes.

If, at first glance, the proposed 7 dimensions can appear to be clearly independent, the connections among them are not only numerous, they appear to be logical. It all looks to come down to how the process of the growth hack itself is structured, and this conceptual map serves as a first approach to the process, as will be discussed in the next section.

6. Discussion

The interpretation of the conducted interviews enables a clear view of the current state of growth hacks, from the perspective of growth hackers themselves. This creates an opportunity to build upon this first-hand data, starting a discussion on what aspects of growth hacks should be addressed in research, for a better understanding of this process. As so, the present discussion comes forward with insights from the qualitative research results, and the author's own perspective on each topic, with first-hand arguments properly backed by the literature. It should be noted that most of the discussion is put forward from and for the viewpoint of a "growth rookie". While there are several issues in this matter that require deep, focused analysis, this present research emphasizes the overall process of a hack, in an attempt to urge researchers to dive into the issue.

Debate on the issue is then opened, and organized into 6 core hypothesis.

Hypothesis 1 – There is a need to understand the growth hack process

One of the most relevant findings appears to be growth hackers' agreement with the lack of structure of an experiment, from ideation to iteration. While it has been repeatedly stated, throughout this proposal, that growth hacking is still a novel concept, the reality is that, since it was first mentioned back in 2010, growth hacking was behind several companies valuing from thousands to hundreds of millions, such is the pace that the industry has. Considering this rapid pace as the reference, a structured approach to understanding the growth hack process seems to be coming late.

Exceptional growth has been born from the creativity, persistence and meticulousness of self-labeled growth hackers, and the surge in interest for this field of work has filled the ranks with several beginners on growth. One tangible example here is the author himself. Being involved in a self-funded start-up for the mobile space, and aiming at a high user base growth strategy, the employment of growth hacking techniques seems to be the most agreeable road to pursue. However, it becomes seemingly impossible to follow a road when no-one has felt the need to properly pave and signal it. A suitable explanation that comes to mind is, again, the incredible pace at which growth hackers need to work; the requirement to continuously ideate, test, and iterate is sure to take its toll and leave no time for "paving roads", when the growth of multi-million dollar start-ups is at stake.

Much as happens with the author, indubitably these are difficulties that are shared with other start-up co-founders, which resort to every source of information they can get, in order to build something that remotely resembles a growth hack.

As is true in many situations, acknowledging the dire state of affairs seems to be the first logical step into taking proper action. These words come from growth hackers themselves. The process of a growth hack needs a methodological assessment, and it can't come fast enough.

Hypothesis 2 – Idea prioritization should be more methodical

Unlike found information on the subject seemed to suggest, growth hackers are actually taking proper actions to ensure they can make the best of any given experiment. Information on the matter of idea prioritization for growth hacks is scarce. Only Growth Tribe does indeed put forward some interesting insights into a prioritization mindset, but even still most of this information is not publicly accessible, as Growth Tribe likely saves most of it for its paid growth hacking "academy".

If not only to support the argument that growth hackers do, in fact, search every bit of the web for valuable information, interviews surprisingly showed that a great number of growth hackers follow Sean Ellis' ICE score proposal, as means of rating ideas. This valuable input from the "father" of growth hacking was called for by the need of growth hackers to find some systematic approach to their own workflow. Out of the need came the answer, and not surprisingly in the stage of the – apparently – favorite platform of every growth hacker: the growthhackers.com forum. Even more so, as presented in the results section, one growth hacker even stated to be using a modified version of the ICE score, likely one found on the discussion section of Ellis' original proposal, further emphasizing just how scattered all this information is.

All in all, truth may be that growth hackers seem to always find a way, this issue is very poorly managed. Again, ideas are the foundation of every hack. Poorly prioritizing ideas may keep a low potential, high cost experiment running longer than a start-up can afford. ICE scores, BRASS frameworks a few other tools are simple enough to be employed, but still they look as if they are frozen in time. Interviewed growth hackers, even those that didn't mention the ICE score, consistently made mention to giving most importance to the ease, impact and confidence of ideas when prioritizing. This can serve as validation of sorts of Ellis' ICE score, but can also be seen as an incentive for further scrutiny of each of these elements. Impact and confidence are prone to subjective interpretation, which raises the question if they should, to the possible extent, be broken down into more tangible factors, that can be systematically used by growth hackers without much room for interpretation.

However assertive interviewees were when inquired on their prioritization rationale, responses on the question "what are the common characteristics of a successful growth hack" come into play to stir these affirmations. The most referenced success predictors were "coming from solid assumptions", and "getting product-market fit". No doubt this is, by itself, a broad and seemingly worthless statement. If creativity is the foundation of a growth hack, assumptions and product-market fit are its groundwork. Every single bit of information a growth hacker brings to the table, when designing an experiment, is an assumption. Is the channel adequate? Does the incentive match the recipient? Will the experiment take the predicted time? Will the start-up be able to afford it? Can it be measured and compared? Saying that a growth hack would succeed if all these statements were true would raise no eyebrows. If the ingredients are all there, it is only necessary to put in work cooking a delicious cake. But a growth hack is not so. Will chocolate taste better? Is there enough flour? Are the eggs good? These culinary equivalents of growth hack assumptions are what sets a home cook apart from a Michelin-starred chef.

The question stands: how can one ensure solid assumptions? The consensus among growth hackers lies in nothing other than analytics. Having quantitative data that can visually show how users are behaving, where user experience is flawed, and how user expectations fluctuate, a growth hacker becomes empowered with enough secret weapons to construct quite a few experiments. It seems that the issue with analytics is their static nature. Analytics won't magically fit to whichever new market a start-up is addressing, or to a new feature it released. They, too, must be dynamically and strategically adapted by the growth hacker, so that they measure real attitudes and decisions, considering all possible factors. And, most importantly, analytics are only as good as users' wills. It brings no tangible added value to have a monthly active users metric fully deployed, if the growth hacker doesn't bother to talk with the user, get to know how his/her mind works, understanding his/her needs and pains, and proactively seeking to solve them. By living inside the user's mind, growth hackers can see their own assumptions in a new light, and suddenly they become clearer. Here is where product-market fit enters the game. The channels make more sense, the incentive can be adjusted, the timing is corrected. Assumptions go from bold question marks to assertive exclamation marks. And, just so, the experiments' viability surges.

Converting these insights into measurable factors can become a bigger challenge than conceptualizing them, though. First, analytics' insights should be fed into this prioritization matrix. "Do I have data that backs up this idea?" – it is quantifiable, concise and simple enough. Aiding towards finding some additional ranking factors, two compelling insights from the interviews are considered: channels and niches. Directing a hack towards a niche is arguably simpler and less prone to doubt than venturing to address a multifaceted segment all at once. Borrowing wisdom from product-market fit theory, diving into a niche, in an attempt to uncover latent needs and pains, can very well present the answer to "Will it respond to a niche's need?". Properly understanding channels is also a pivotal part of this assessment. As many respondents argued, a secret sauce is often finding new, user-rich channels with little competition, taking advantage of the marginal costs while the channel flies under the radar. As it stands, another question can be asked: "Will we be able to take advantage of this channel?".

Surely, these 3 additional questions can fit in with Ellis' ICE score framework – no question there. And perhaps these are not precisely the right questions to ask. But, be it as it may, in the end of the day what matters is that the growth hacker must be aware of them, embrace their importance, and be shrewd enough to use them to his/her advantage.

Hypothesis 3 – Growth hacks are not exclusively product-centered

So seems to be the general consensus. Start-ups that were able to master their own product-pull strategy became widely known phenomena. It was case studies the likes of Dropbox, Hotmail and AirBnB that eventually

led to the need for the concept of growth hacking. By continuously testing and enhancing their own viral loops, these companies sent their customer acquisition costs crashing down as never before seen (Veerasingh, 2014). Hotmail managed to grow from 20 thousand users to 1 million in six months, fetching a \$400 million exit to Microsoft, simply by placing a carefully construed line of text that incited referrals. That’s simple and amazing enough to have stirred so much excitement about product-based hacks, and having entrepreneurs dreaming about being able to do so to their product themselves.

But the reality is that examples like Hotmail’s are some holy grails that are not found in every corner. Product-pull strategies, much as product-market fit, take countless methodical iterations to be built, and still then are capable of failing (Blank, 2013). Dreamy as a self-selling product is, it’s not as simple as releasing a shiny new feature or forcing a referral program. As will be showcased in the following section, multiple decisions ultimately dictate the million ways that a product-pull approach can go wrong. It is no surprise that, while they acknowledge that product-based hacks are very valuable and should be considered by every start-up, they are not, by any means, the only possibilities to achieve a proper growth hack.

It all comes from the definition first issued by Sean Ellis himself. Growth hacking is having growth as the true north (Ellis, 2010). It is the act of painstakingly experimenting, until finding an action that results in cheap, sizable growth. Narrowing down this approach to product-centered experiments only would be a catastrophic loss of value. And it never even comes to that – growth hackers “do” growth hacking in a lot more dimensions than the product. The general agreement is that, while product-centered growth hacks seem to be the aspiring approach to growth hacks, any experiment that leads to growth with low costs can, in fact, be labeled as a growth hack nonetheless.

Hypothesis 4 – Users’ communications in a growth hack explain their decision-making

As approached during the literature review, a growth hack can be seen as a communication process that occurs between a start-up’s product (or “content”), and the users (or “peers”). Not only so, it includes several value propositions that, back and forth, dictate how each decision along the way is being made. As addressed by Snoj, Korda, & Mumel (2004), users are analyzing the value proposition that the start-up puts forward, in its experiment, and considering multiple factors when assessing it. In a higher level, these factors are the perceived gains, perceived pains and pains of changing from the current state to the proposed one (Zeithaml, 1988).

This communication process, having a clear sender and receiver of the message in each stage, is prone to be mapped, and the individual value propositions at stake identified. Understanding the players, value propositions and stages, a first model of a growth hack process can be visualized as seen in **Figure 7** below.

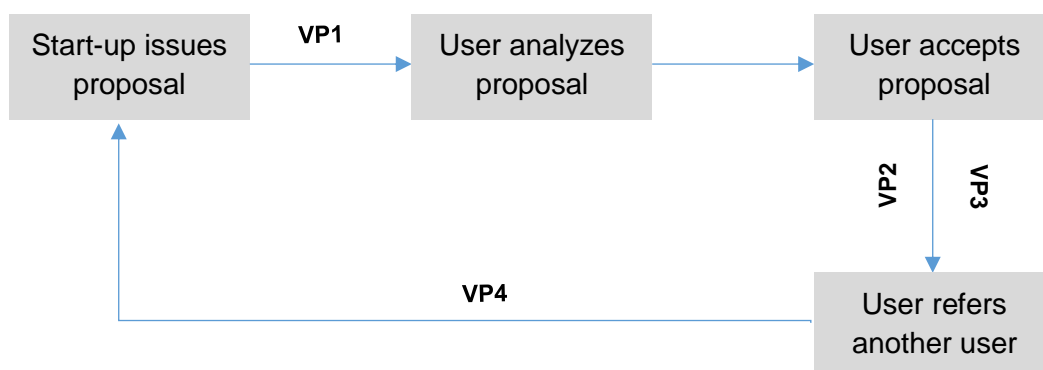


Figure 7. Simplistic representation of the main stages of communication in a growth hack, as well as the value propositions at stake.

In this conceptual model, when a start-up first issues a proposal (the experiment), the user analyses the value proposition that it places him/her. If the perceived overall benefits (incentive, such as a discount or extra functionalities) exceed the sacrifices (extending an invitation to someone), the user is likely to accept the proposal, and refer another user. At this stage, the original user is also sending a value proposition with the referral (sending an incentive for the new user to join; usually cash bonus, free trials of extra features), and receiving a value

proposition back, which is mostly an extension of the original value proposition issued by the start-up (if the invitation is accepted, the original user will benefit from bonuses). Only when the invitation is accepted does the start-up receive a value proposition in return – a new user, acquired at a very low cost.

A brief analysis of this model quickly enlightens some issues. First, not all growth hacks are referral based; second, it is too simplistic and doesn't get into how decisions are being made in each step of the way; third, it fails to identify how each value proposition can be leveraged into achieving the intended results. It, however, provides a simplistic view of the growth hack process from a communication perspective, and opens the way to further investigation on decision phenomena, much like is going to be explored in the next hypothesis.

Hypothesis 5 – Decision-making factors can be used to leverage a growth hack's success

Understanding that a growth hack goes through a communication process, first this process can be split into two major areas: the area under control of the start-up (AS), and the area under the control of the user(s) (AU). This division is based on where the communication departs, acknowledging that the sender of the information is in sole control of the decision-making process when sending the information.

Secondly, it is important to provide a model that works for non-referral hacks. To this extent, two flows of communication were considered, based on the possible approaches to the hack, as is represented on **Figure 8**.

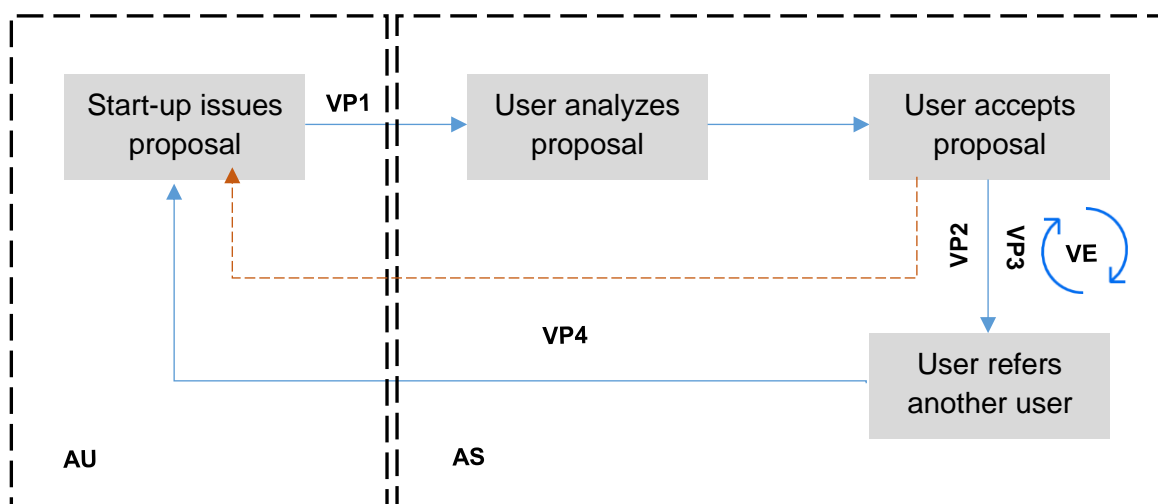


Figure 8. Advanced representation of the proposed growth hack communication process.

In the first approach (blue arrows), the content interacts with the peer, then the peer interacts with other peer(s), then the new peer(s) interact with the content; in the second approach (orange arrows), the content interacts with the peer, and then the peer re-engages with the content. In practical terms, the first approach fits with consumer-centered models, such as referral programs, where a user brings new users to try the product. The second approach doesn't rely on referrals, being centered on the user itself. A suitable example is a usage rewards incentive program, where a user gets tangible benefits for using the product, such as points that can be converted to store credit in online stores. As this proposition stands, it showcases two distinct routes to growth: referral programs can act to retain an existing user and get new ones; usage rewards can stimulate customer loyalty, building future sales. As seen from the get-keep-grow process suggested by Blank & Dorf (2012), the first approach works on the get, keep and grow levels, while the second only doesn't work on the "get" level.

A significant layer of value can be added to the proposed framework, when looking deep into the decision-making process. Literature is rich with research that investigates how peer-to-peer and content-to-peer interactions are influenced, specifically considering research on eWOM and viral marketing. From this point of view, each value proposition can be classified and its inherent decision-making interpreted as follows:

VP1 – content-to-peer

During this first stage of communication, the user is receiving a message from the content (be it the product, marketing, customer service, etc.). Research by King, Racherla, & Bush (2014) point out that the higher the degree of previous contact between the user and the company, the higher the user's likelihood to accept the proposal; Phelps, Lewis, Mobilio, Perry, & Raman (2004) found that richer, creative content that stimulates positive emotions – such as laughter and learning – also increases the chances of acceptance; Sundaram, Kaushik, & Webster (1998) also stress the importance of previous contact, and add the role of economic incentives – cash, discounts or extra product benefits – as being determinants of acceptance.

VP2 and VP3 – peer-to-peer

At this second stage, the first user approaches the second user with an invitation. De Bruyn & Lilien (2008) indicate that closer personal relationships between these peers will often lead to higher acceptance rates, as so is the case with homophily (i.e., if the users share a high degree of interests, the invitation is more likely to be accepted). Here, homophily can be analyzed from the perspective of niches, where users share a high degree of similarity of at least one interest and where, according to this theory, such invitations are more likely to be accepted. Chu & Kim, (2011) also address the issue of trust and influence, stating that when new users trust the judgment of the referring user, and see his/her status as a knowledgeable one, they are more likely to accept. This is also the case with the degree of influence the referring user has on the new user; in the example of niche communities, referrals by community administrators present higher rates of success, due to this inherent influence capability. Another aspect addressed by Hennig-Thurau, Gwinner, Walsh, & Gremler (2004) is that naturally occurring social interaction between these peers acts as a primer of acceptance.

VP4 – peer-to-content

When the last stage is reached, all major decisions have been made. If all previous steps advanced successfully, either an existing user re-engages, or a new user engages with the content. The ball is back on the start-up's court.

VE – virality effect

Besides the factors that are influencing each value proposition-dependent stage, a noteworthy effect occurs when existing users refer new users – the virality effect. As so, this effect occurs exclusively in pathways where peer-to-peer interaction comes to place (showcased in blue in **Figure 8**).

This virality effect can be considered an amplification of the peer-to-peer dimension. In simple terms, virality occurs when a group of existing users invites several new users, and those new users follow the same path, and so forth, in a cascade of potentially gigantic proportions.

As much as virality effects may greatly impact a growth hack, their existence has also been analyzed in the literature, and can be somewhat explained and controlled by a series of factors, some content-dependent, and others peer-dependent. Several authors report the importance of content-dependent effects on virality outcomes; Berger & Milkman(2012), along with Phelps, Lewis, Mobilio, Perry, & Raman (2004) come forward with four mail pillars that dictate how content stimulates viral effects: first, the content itself must contain a positive message, one that is interpreted by users as being valuable to them – such is the case with funny, informative, motivating and thankful messages. Second, content should be able to appeal to emotion. Third, it should be useful for both parties, providing some value on its own. Fourth, it should be fresh and innovative, with disruptive, surprising content having an advantage over repetitive, stale content. Most literature on this subject, including studies by Camarero & San José (2011); Haryani, Motwani, & Sabharwal (2015); Sundaram, Kaushik, & Webster (1998) also pinpoint some of these factors, adding emphasis to their importance, while also noting that another factor exists that can diminish the viral potential: manipulative intent. As so, the content itself should not pass on a message of intention to force users to some action, but instead come in the form of a positive reward or incentive that the start-up enables one user to share with others.

In terms of peer-dependent factors that shape virality effects, literature is unanimous in electing two main contributors: social inclusion and social altruism. Both are a reflection of the referring users' intentions and motivations towards extending an invitation. As Hennig-Thurau et al. (2004), Ho & Dempsey (2010), King et al. (2014), and Sundaram, Kaushik, & Webster (1998) detail, both users with individualistic intentions (seeking to be included in a social dimension) and altruistic intentions (seeking social affection) are more motivated to share this content forward.

Hypothesis 6 – The proposed model fits well-known growth hack case studies

In an attempt to test the proposed process, two high profile growth hack case studies are analyzed, framing them into each step of the proposition. Three distinct approach case studies are presented: Hotmail (as a referral example), AirBnB (as a purely content-peer example), and Flappy Bird (as a high impact, small dimension example).

Hotmail

Hotmail grew its user base drastically from a few thousand to over 1 million in 6 months. More extraordinary than that, this was accomplished by a simple line of text: "PS: I love you. Get your free e-mail at Hotmail". This also marks the content that was put forward in the first step (VP1) – Hotmail proposes that a user gives the gift of free email (rare at the time) to anyone he/she "loves". As the user extends that proposition to a new user, VP3 and VP4 come into place. Here, the first user is proposing value to the new user by creating the opportunity to get free email, while the new user presents a subtler value proposition of recognizing the first user's knowledge and altruism. At the last step, the new user accepts the invitation and Hotmail receives its intended value proposition: a new user.

Some decision-making factors can clearly be identified throughout this process. First, the degree of contact between the first user and Hotmail is perceived to be high, as email is a frequently used tool, and Hotmail was able to conquer users' hearts by providing it all for free. Second, the content is simple, but rich enough to stimulate positive emotions – the message itself has a positive and funny aspect to it, which stimulates accepting to share it. Content only fails to present a clear economic incentive, choosing instead to put forward a sentimental one. Second, in the peer-to-peer stage, users were sharing this with their own email contacts in every message they sent, which, by itself, implies that some degree of relationship or previous contact exists between both parties. This can be seen as a naturally occurring social setting and, as so, also helps guarantee acceptance.

Lastly, virality effects in this case study were gigantic. It was no doubt promoted by the persistence of content (it was present in every email sent out with Hotmail), but its own positive, emotional and useful nature all amplified the content's likelihood to be passed on further, and can be seen as the major primer behind the huge ramification of this behavior.

AirBnB

The rising start-up's most well-known growth hack dates to 2010, a time when the start-up was still taking its very first steps and remained mostly unknown. AirBnB, for the many superior features it claimed to have, lacked an asset that less feature-packed platforms had: a big user base. A simple research into compatible platforms with a sizable user base quickly led to the identification of Craigslist as a target – it was there that people were actively posting and searching for house listings. The famous AirBnB Craigslist growth hack then took place: by building a bot, AirBnB was able to automatically re-post any AirBnB listing to Craigslist, multiplying the user's likelihood to get bookings and increase earnings. The original message AirBnB sent its users was clear "Re-posting your listing from AirBnB to Craigslist increases your earnings by \$500/month on average". Not only that, it provided other benefits to the user, such as automatically filling forms, that overall saved users a significant amount of time and got them to post on AirBnB first.

This specific growth hack follows the communication flow represented in orange in Figure X. As so, the first content-user interaction occurs when AirBnB invites the user to place a listing in their platform. Here, VP1 is clearly how AirBnB promises the user with higher earnings and less time spent on forms, with the added-value

of the platform itself (more personal ads, with higher quality photos and rich descriptions). If the user then decides to accept this proposal, AirBnB receives VP4, which is simply acquiring a new user.

In this specific case, it seems as though the remarkable success of this growth hack was founded on the basis of the sheer amount of value AirBnB presented the user in its VP1. Benefits of placing listings first on AirBnB made for a significantly superior choice, and users, when comparing AirBnB's value proposition with the one from Craigslist, found that the most value was found in the former.

Flappy Bird

If case studies, online articles and discussion surrounding successful growth hacks paint a picture of high growth, scalable companies, this appears to be only a half-truth. Growth hacks are a reality in small, less known companies, as well as it once was in ones that are now bankrupt. A curious story on a growth hack – while it was never found labeled as one – is the case of Flappy Bird, a mobile app that went viral for mysterious reasons, and died 28 days later surrounded by more mystery still.

The game, created during a weekend by Dong Nguyen, followed a retro design, extremely basic interface, and even more so mechanics, that purely had the player tap on the screen, so a bird character did not fall or stumble into obstacles. For all its simplicity, the game was astonishingly difficult, and seemed impossible to master. And while it was released during 2013, only six months later, early in 2014, did it reach an audience. Quickly, stories of the nightmarish app arose, and millions flooded the app to try and understand what all the fuss was about. During 28 days, Flappy Bird topped the charts, until its creator, who was presumed to be earning \$50,000 per day from placed advertising (Hamburger, 2014), decided to destroy the app, claiming he did so because people were getting to addicted (Nguyen, 2014).

This rise to fame and sudden demise, both accomplished in record time, set several discussions into place. Discussion grew online around just how was a six-month old, extremely basic and single-manned app able to go viral without proper cause. As research unfolded, several pointed out to the brilliance behind the app's simplicity, humor, and its ability to trigger strong emotions from hardcore "gamers", not used to losing in any sort of game (The Ontology of Games, 2014). Others, skeptical of the viral magnitude, analyzed how talk around the app itself had started. The app prompted users to post reviews of their own experience, which they did. Either enraged or proud, a mix of very positive and very negative reviews flooded app stores, in patterns that had some fill with doubt. Nguyen was bluntly asked if he had created bots to post fake reviews, claims the author never confirmed nor denied. This made some investigators grow assured that Nguyen had, in fact, mixed in fake, automated reviews with real ones, amplifying the loud message Flappy Bird users were sending out (Wright, 2014). From this perspective, Nguyen actually deployed a very fruitful growth hack.

From a growth hack process perspective, Flappy Bird's VP1, while not very straightforward, had a strong sentimental aspect: show other people your personal experience with this trendy game. When users accepted the app's prompt to post a review or share it with a friend, they were simply extending a VP2 to other users, enabling them a quick way to get their hands on the app and see what all the commotion was about. With this, they, in turn, received a VP3, with receiving-end users providing social recognition by accepting the proposition. As this unfolded, Flappy Bird received its VP4 – getting a new user – while a clear viral effect took place, with several users referring several more. Several eWOM and viral marketing factors can be identified in Flappy Bird's growth hack. First, its content was creative and enthused strong emotions – both positive and negative; second, it prompted users to share with intimate friends, ones who the user felt comfortable with sharing his/her personal experience with the app; third, the overall message that passed on was seen as funny, fresh and surprising, all elements that, according to Berger & Milkman (2012) and Phelps, Lewis, Mobilio, Perry, & Raman (2004) are strong determinants of virality success.

In an overview of all three short case studies, the suggested communication process appears to hold its ground, and fit into an explanation onto how each specific case unfolded, by looking at the factors which are known to influence both eWOM and viral marketing. The two proposed communication flows, one with a peer-to-peer dimension, and one without, were also found, each in each specific case. However so, the depth of the proposed process seems to be lacking when it comes to the value exchanges, as they become somewhat confusing

in examples such as the one from Flappy Bird, where the peer motivations seem to only be reliant on the social inclusion and “trendiness” dimensions, with no factual benefit seen.

7. Conclusion

7.1. Overview

The lack of structure and methodology to growth hacks, while at first glance apparently not in the direst needs of growth hackers, has made knowledge in this growing field of work uncertain, unstandardized, and scattered in many information platforms. Every growth hacker's success lies in the ability to get hacks right quickly, producing successful growth experiments as often as possible. Without a proper analysis of the growth hack process, any attempt to maximize its effectiveness or even suggest the best practices seems entirely futile.

As so, by connecting the existing unstructured insights on growth hacks with the well-established factors related to eWOM and viral marketing behaviors, a simple growth hack communication process was proposed. While the proposed process is indubitably flawed, it intends to come forward with the first communication-based map of how the hack itself proceeds, putting the content and the users as the main pillars that can make or break this process, and enabling a pondering of the value propositions at stake.

By stressing how each of the value exchanges at stake can be influenced by specific factors, the present study also serves as an eye-opening proposition for growth hackers on the importance of understanding how users react to the way the hack is presented to them, and which effects that has downstream, in peer-to-peer communication. Its purpose is not to provide a 360-degree view on the whole process and scrutinize every possible touch-point, but to launch a first draft of knowledge into an otherwise unexplored perspective, in hopes as serving as a catalyzer to researchers and "brain fuel" for growth hackers.

Growth hackers themselves are clear: the workings of a growth hack are severely misunderstood and unexplored, and the lack of methodical rationale is seen as an impairment to their own workflow. An increase of research on the matter would also mean a trustworthy source of information, which would back propositions with other research, enabling growth hackers themselves to venture into understanding phenomena, placing themselves in the shoes of their users, and being empowered to leverage proper growth experiments.

7.2. Recommendations for Growth Hackers

The present research, overall, can shed some light into how growth hackers can use existing knowledge and insights into their own purpose. While the basic ground rules for growth hacking are more or less standardized across growth hackers, the same doesn't apply to a growth hack. Several key aspects of the process were seen as severely unstandardized, and doubt frequently emerges throughout the process. As so, some main recommendations are presented below.

First, prioritization of ideas should be a standing stone of the process. Properly feeding a growth hack means at least some degree of concern into which ideas are tested and which ones are postponed. As argued, testing a badly thought idea can often mean severe expenses of time and money for both the growth hacker and the start-up, resources that, more often than not, are scarce. So, time should be made to prioritize ideas. And this prioritization shouldn't be arbitrary. Using a tool as the ICE score as a basis, growth hackers can evaluate ideas across three main dimensions, and use that knowledge as leverage. However so, if this thesis' plea is considered and research on the decision-making stage is put forward, it is likely that new, more robust decision matrices are created, enabling the growth hacker to further back up his/her evaluation. At this stage, what can be recommended is that growth hackers, beyond the ICE score, evaluate the ideas in terms of solidity of assumptions, existence of niches and advantages of channels.

Second, growth hackers must envision the process of a hack from the perspective of users, and consider their decision-making. This is the main purpose of the proposed process – a showcase of how decisions are being made when a hack is put forward, how value is being perceived, and which known factors are playing a key role to back up these decisions. As so, and until a more solid framework is put forward, growth hackers should seek to include, in their idea-generation and prioritization stages, the factors that are known to influence decisions. Specifically, growth hackers should evaluate the content in terms of its message – favoring positive, rich content –, segment users as precisely as possible, to ensure the hack is framed from an angle where the user has a previous contact with the content and, when applicable, offer symbolic economic or practical incentives as a trigger to

action. For the peer-to-peer dimension, growth hackers can only do so much. However, some ways to ensure that peer-to-peer communications occur as they should can be used by the growth hacker. By working towards niches, growth hackers are making sure that homophily, trust and influence exists between users, and the effects of social inclusion and altruism are more tangible. This channel segmentation can then be seen as a proper way to influence peer-to-peer communications, and should be leverage whenever possible.

Last, growth hackers should seek to create pressure from the researchers' side. Growth hacking is enough of a phenomenon to be known by several researchers, yet literature is still overly immature. By pressuring advancements, growth hackers stand their ground on the need for knowledge and proper methodical propositions, not only stimulating an overflow of new insights, but overall contributing to the reliability of the process and acknowledgement that growth hacking is, indeed, a tangible and important field of work.

7.3. Limitations and Further Research

As referenced multiple times during the course of this study, its main limitation lies on the significant lack of research on the matter of growth hacking, and the absolute lack of research on the specific aspect of the growth hack. Many assumptions presented in this study are only backed-up by online articles and propositions from marketers and growth hackers, which can be seen as a not so trustworthy source of information, due to its own lack of proper referencing.

Another relevant limitation of this research comes from the gathering of first-hand data, by means of interviews. Here, although questions were structured to be neutral, clear and straightforward, respondents may have felt influenced to give a specific type of answer, rather than adopting a neutral position as well. Adding to that, while interviewees were somewhat accredited as being real growth hackers, their own level of experience on the matter was not assessed, and so different perspectives may be coming from individuals with different experience levels, which is something the data was not controlled for, as was the case with demographic factors.

As this research is intended to be an exploratory one, due to the lack of previous research, the findings are meant not to propose absolute truths, but hypothesis that, as far as current assumptions go, were grounded in current literature and found to be reasonable.

The established contact with multiple growth hackers seemed to make it clear that not only do they value research in this matter, they have been longing for it. Scientific knowledge on the subject brings trustworthy insights that will not only help growth hackers by stimulating their critical thinking, but also link them to the several areas of knowledge on which a growth hack is grounded. Future research should, then, focus on diving deep into the process of a growth hack, identifying the multiple dimensions that shape it, and uncovering the factors that can be used by growth hackers, in order to predict and maximize outcomes.

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9. Annexes

A. Email Structure

The first sent emails were mass-personalized and sent in bulk to the obtained database of growth hackers. Its structure was as follows:

“Hi, [FIRST-NAME],

I'm doing my Master's thesis on growth hacking and I'm now conducting some brief interviews with people who work in this area. Since you have experience with growth hacking, I'd be thrilled to count on your help. I'll just need to ask you a few questions about the concept of "growth hack", from your own perspective and experience. This can be done via email, Skype, or any other platform that you prefer.

My thesis' goal is to propose a framework for the concept of growth hack, and uncover factors that shape how effective the hack can be. I'll gladly share my final results with you.

Hope to hear back from you.

Cheers,
Filipe Lima”

In the cases where a valid response was obtained to this first email, the scope of the interview and the questions were presented to every respondent, as follows:

“[FIRST-NAME],

Please find below the scope of my research and the questions.
Let me know if something is unclear.

Your perspective on these issues is very important. Thank you again for collaborating!

INTERVIEW SCOPE AND CONTEXT

Existing research on growth hacking is scarce.

Some online marketers have proposed guides for the growth hacking process, such as Neil Patel and Bronson Taylor's.

All existing guides suggest there is a step where the growth hacker must test different ideas to find one which achieves extraordinary growth - the "hack" stage. Testing these ideas often requires a great deal of time and effort.

This thesis proposes to understand how a growth hacker can predict the outcome of an experiment, reducing the required time and effort.

Please note that, when asked about “experiments” or “hacks” you may have done in the past, you should consider both successful and unsuccessful experiments – even if they were small in scale.

INTERVIEW QUESTIONS” (...)

[Note, see Annex B for the complete questions]

B. Full Interview Questions

A total of 8 main questions were asked, as follows:

Question 1: Are you familiar with Neil Patel and Bronson Taylor's growth hacking guide? Have you consulted any other guide?

Question 2: How do you usually try to come up with new ideas for hacks/experiments?

Question 3: Looking back to the experiments (or hacks) you have done in the past, do you believe there is a common characteristic in those most succeeding? And in those least succeeding?

Question 4: Some marketers suggest that, once you've come up with ideas for different experiments to reach a specific goal, you should choose the idea for which you have the most leverage. Is this a factor you consider when choosing which ideas to test first? Do you consider any others?

Question 5: Some growth hacking frameworks present 6 steps – define goals; implement analytics; leverage own strengths; execute experiment; optimize experiment; repeat/iterate. Which stage do you believe presents the hardest challenge? And which one do you often waste most time on?

Question 6: Some authors propose that online startups have created a new distribution strategy - the product strategy. It suggests that the product is able to attract new users by itself – such is the case with social networks, where users proactively invite new users to join.

In your perspective, what are the characteristics a product should have to stimulate this effect?

Note: By “product”, please consider products/services of internet startups.

Question 7: Most guides on the growth hacking process are generic and not focused on a specific aspect. However, emergent literature is heavily product-focused – proposing frameworks that use product features as experiments. To you, is growth hacking only product feature based tests, or any experiment that can be done with the goal of reaching growth?

Have any of your experiments been product feature-based? If so, can you compare the results from experiments done on the product level to those more generic?

Question 8: How important is literature and theoretical research on growth hacking to you, as a growth hacker? And how important is it to the industry as a whole, from your perspective?

C. Sample Skype Response

Some Skype responses were obtained. Below, a randomly selected sample of a Skype response (transcript), is presented. Note that some pieces of information may be marked as [redacted] due to confidentiality issues, and some portions of the transcript that were either considered out of topic or redundant were also excluded from the transcript found below.

START OF TRANSCRIPT

Interviewer – Ok, so my first question is if you are familiar with the growth hacking guide that Neil Patel and Bronson Taylor proposed a few... a few years back. Are you?

Respondent – I... I think I know Patel, and I've met him a few times. And... I haven't actually read his guide, I know he's kind of a content marketer himself, so he gets around writing guides about trendy concepts such as this one. So I don't really... I don't really... He's a great online marketer, so I don't think his guide is one I would find in any way definitive. I wouldn't say there is any other guide I follow.

Interviewer – Now regarding when you are actually working as a growth hacker, how do you usually try to come up with ideas for your hacks, or experiments?

Respondent – Sure, yeah. I suppose when I was at [redacted], and even my girlfriend was working in a Berlin company, and now she works at [redacted], which is a health tracking app. I think it all depends on your like, what stage the business is at. If you have a product-market fit, or if you are in a growth scale, where you have several million users and you're thinking on how to optimize and grow your metrics. You know these metrics, the AARRR?

Interviewer – Yes, sure, I know them.

Respondent – We followed the AARRR pirate metrics, typically for early stage startups you focus more on qualitative stuff like talking to customers, understanding how they use the product, and that would be the best source of new ideas on what to do next.

Interviewer – Ok, so now looking at the experiments, because I believe you have done some experiments throughout your career, do you believe that there is a common trait or characteristic on those that succeed the most or those that fail most often?

Respondent – Yeah... I mean, as an actual experiment – and people love to write about them – I have had a few of them, and I think the big deal is how big of a scale you're dealing with. If you can have an onboarding flow on which thousands of people are going through, and you can do an A/B testing and get some cool results, whereas then you're an early stage start-up and you focusing on getting your first hundred customers, probably testing is not necessary or possible. You can see results quickly without A/B testing. So it all depends on the stage and the problem you're addressing, and... I'm not sure. I... I don't think I would be able to say... (silence) any particular thing.

Interviewer – Ok, sure, that's a perfectly valid answer as well. Now thinking about, marketers and content marketers, some of them have suggested that when you're trying to come up with new ideas for experiments, you should stick with the idea for which you have the most leverage. For you, besides this factor, do you consider any additional ones?

Respondent – Yeah... I mean, leverage is an abstract concept as well, I think it comes down to, so you have an app if it's ugly in terms of the code, you talk to your engineers and developers, and they say it would take months. When you're working in teams, it gets more complicated. You have to convince the product manager, or the CEO, or whatever, so you need to get people on board. You have to pitch them your ideas to get them excited, that don't take too long to implement, and that have really high optionality. Do you know this concept of optionality?

Interviewer – No, I'm not familiar with it.

Respondent – Well, it really means having a small investment for a potentially unlimited payoff, versus a considerable investment for a limited payoff. If you can get more people to sign up, and it has the potential to snowball over time, you're looking at high optionality. Analytics is one of the best ways to see what is best to test first. Knowing how to prioritize things is really an iterative process, you keep looking at the metrics, seeing your signup rates, your onboarding flows, and getting on from there. I suppose some people use spreadsheets with matrixes to rate their ideas, but I haven't felt the need for it with my current team.

Interviewer – Now looking at the growth hacking processes that you can find in the literature and have been referenced by other marketers, one of the most accepted ones presents six steps: define goals; implement analytics; leverage own strengths; execute experiment; optimize experiment; and repeat until reaching the intended results. Of these stages, which one do you believe presents the hardest challenge for you?

Respondent – (silence) Hmm... I mean, goals are usually obvious, so you don't really miss it. Your goals and KPI's are pretty clear. Analytics... I mean, you always want to know more data. It can be challenging because it has been in the past done by very technical people, which is kind of an issue because if you want really good analytics you need very good engineers behind it. You'll find Google Analytics is not enough and need more advanced tools like Mixpanel and this type of stuff. Most startups do not have a rock solid analytics built up. (silence) I don't know I would break it down to a specific step, but... It really all comes down to your team,

managing how they feel about growth is a challenge, because not everyone is eager to fit that into their agenda, and you have people who are just focused on building a great product and not growth. You tend to waste most your time on iterations really, since when you're focused on A/B testing you will be continuously going back and forth and trying to isolate variables and what not, so it is really time consuming, but... you know, it's part of the process, so it really can't be seen as time wasted.

Interviewer – Now moving on to the next question: some authors have come out with a new definition, a new strategy for distributing online products such as social media. They are saying that the product itself can have some features that get users to proactively invite users on their own. In your perspective, is there a characteristic of a product that can stimulate this effect?

Respondent – If you mean the classic referral patterns, like Dropbox, double sided... I mean, it's kind of the holy grail of all startups, and based on the industry you're in... I mean, it depends. Uber, for instance, is paying users to refer others, using cash incentives, Dropbox obviously offered other incentives... But in the enterprise B2B area you can't really give these incentives, so often these referral is not such a big play. Erm... or even Slack got referred to companies that were referred by other users and companies, but... yeah, I mean, consumer apps tend to have more that kind of referral because of the distribution channels, so anywhere you have a network effect or that kind of variables is a good start to get those type of effects.

Interviewer – Getting to the final questions now, speaking of these, you know, product-based growth hacks, I have found that the latest research actually defines growth hacking as the process of testing product features. However, marketers that speak of growth hacking don't often restrain this definition to the product level alone. They say that growth hacking is anything that can achieve growth. So, from your perspective, how would you define growth hacking: product-level or a broader sense?

Respondent – Well, it really depends on the company... I don't think anybody cares if it's the product team that delivers the growth or the marketing team that does it. Whatever team, I mean... In AirBnB, through Craigslist that was the way they got their users, and it wasn't really even in the product itself. You take a channel like Facebook advertising, at this time it's pretty arbitrated, there's really no advantage you can pick up on a saturated channel like Facebook advertising, and you basically pay the auction rate, while on the earlier days of the channel, if you could perhaps create some sort of social app, you could explode overnight, because you explore that channel that has low competition and get a lot of value. I think if you're in an industry where you see a new channel coming up and lots of people using it, you can hop on that channel and get lots of users out of that, so that would be a great growth hack. But another hack would be you have an established product and you just get your product team working on features, trying some new experiments and seeing how engagement goes from there. I think it's just the idea that you get exponential results, new channels and opportunities, all for low cost. Ultimately you'll need to touch the product at some point, if you're looking at long-term sustainable growth, so that's why you can only do so much with acquisition.

Interviewer – Now, lastly... For you, as a growth hacker, do you believe that literature and theoretical research on the matter... Does it matter to you, is it important?

Respondent – I mean, I wasn't even aware there was some sort of academic research going on the matter, I suppose one thing I would say is that not that many people work at the same level at a company, so I tend to look at other people that are working at people that are working at the same level as me, but maybe more advanced. So that would be the most important source of information, along with some phone calls you can make, posts you can read or podcasts you can listen to, that would be the most important source of information. Ultimately, it is a business need, it's not a theoretical need, people are doing this for the quick need of growth, not for the long-term knowledge. So they need to solve very present needs. I would say research would be very interesting, and come up with some good insights, but it all changes so quickly, so I suppose... there could be some interest in it, but it has to be able to keep up, which can be a great challenge. I'm not really working in companies where they would feel a great need for that knowledge, but it would be great for companies which want to incorporate a more growth-oriented mindset, that type of research would really help.

Interviewer – Well, that's really about it. Thank you for your answers, I believe you were very thorough and that... it will be great for my research to get all these insights. Do you have any extra questions for me?

Respondent – No, I think it was clear enough. I would appreciate it if you could send me your final results so I can perhaps take a look around. As I said, it's not something I would do on a regular basis, but there could be valuable insights there... and... yeah, glad to have helped.

Interviewer – Ok, sure, I'll send you everything by email whenever I get the final... the final thesis. Thanks again. Bye!

Respondent – Nice to talk with you. Bye!

END OF TRANSCRIPT

D. Sample Phone Call Response

A few phone call responses were obtained. Below, a randomly selected sample of a phone call response (transcript), is presented. Note that some pieces of information may be marked as [redacted] due to confidentiality issues, and some portions of the transcript that were either considered out of topic or redundant were also excluded from the transcript found below.

START OF TRANSCRIPT

Interviewer: First off, thinking about growth hacking support materials, are you familiar with Neil Patel and Bronson Taylor's growth hacking guide, or any other guide that you have used in the past?

Respondent: Yes, I have. For someone who wants to take up growth hacking as a career, this guide explains the various terms and processes related to growth hacking in a very simple way. One other guide is Hubspot's growth hacking guide. (silence) Also, Kissmetrics has an article mentioning the top resources for growth hacking. Very useful to find some of the best articles in the industry at one particular place.

Interviewer: How do you usually try to come up with new ideas for hacks/experiments?

Respondent: Whenever a new problem comes up, the first thing that I think about is "What is my end goal?" You need to have smart goals; this is where your growth hacking starts. While deciding on the goals, I always try to avoid anything in abstract form, the goals can be anything, website traffic, signups, request demo etc., but they should be measurable. For example, I want to tell people about my new product. So, I start collecting the leads and send out an email campaign. Most of the people set their goals as, send x number of emails by the end of this week; and when Friday comes they are happy that they are done with their task. This is where I beg to differ. Sending out emails or newsletter, or pitching new leads, is not an end goal. They are the actions that you take towards the realization of that goal. You keep on sending out emails without having an action plan on what would you do if your open rate is very low or if the response rate is almost nil? That's what you have to consider.

Interviewer: Ok, I can see that. But getting back to the... the way you come up with ideas for experiments, how do you usually do it?

Respondent: Ok sure... I start my ideas keeping the goals in mind. Generally, they are "number of signups", "blog/website traffic", "the no of demo calls" etc. Now, after I know exactly what my goal is, I will focus on the channels or the resources that I need to leverage in order to reach to this goal. While forming ideas, looking at past data always helps. As well as exploring newer possibilities. Depending on what has or has not worked for you before, you can focus on the new action items that you need to execute in order to reach that goal.

Interviewer: Great. Now... trying to look back to the experiments you may have done in the past... do you believe you can identify a common trait in those that either succeed or fail most often?

Respondent: Hmm... The way I see it, success of an experiment varies a lot depending on various factors like, your product, your user persona etc. I think growth hacking is very tightly coupled with marketing, sales, product and design. For example, you want to increase your landing page optimization, but your frontend is breaking on mobile devices, or your signup form is too long, your marketing efforts alone are not going to help. There are tons of user insights which you can derive if you track these. I have been extensively working with [redacted], where we have 3 products primarily. First, we help companies in conducting their technical interviews through our AI and Human powered platform, secondly we have a screening tool for shortlisting resumes and our latest product is HR Chat bots, which replaces the manual calling process of the recruiters and HRs through a chat bot. Now, when you have to market for three different products simultaneously, it's very easy to get confused. One of the mistakes which we did was, we considered the same user persona for all the three products, since they are kind of coupled, which was incorrect. The use cases vary a lot from company to company. Another thing, while forming any plan, you should be very clear about the ROI that you are expecting from the execution, and maybe after 2

weeks, measure the results to your expectations. Not setting up expectations earlier was a mistake as well, as we could not tell for sure what had gone wrong with our efforts. For a successful hack, start with the goal, while keeping your engineering and business resources in mind, plan the execution, monitor the results, weed out what's not working, and increase the frequency of what's working.

Interviewer: Ok, thanks for your input on this! Now, moving on... I have seen that some marketers out there are suggesting that, once you've come up with, you know, ideas for experiments to reach a specific goal, you should be inclined to choose the idea for which you have the most leverage. Do you usually consider this factor, and any additional ones?

Respondent: I very strongly believe in innovation. Surely, you should start with the idea which you can leverage the most, but at the same time, set some time aside to research the market and competitors and come up with new ideas. (silence) Then I... I generally follow 70-30 rule, 70% of the efforts on the idea that I am sure will work, and 30% of the time, I keep on experimenting. Apart from this, I am in constant lookout for better ideas, sometimes even a Facebook post can generate some interesting ideas, if you can be creative enough on it.

Interviewer: Ok, ok... Now, I've looked to some growth hacking frameworks out there and they usually present six steps – define goals; implement analytics; leverage own strengths; execute experiment; optimize experiment, and repeat or iterate to get the intended results. Considering these stages, which do you believe is the most challenging or you spend most of your time on?

Respondent: I would say... I think the first and the fifth one are the most challenging. You know, defining goals and executing the experiment. As mentioned earlier, while defining the goals, you have to keep a lot of things in mind, starting from your research, to the expected ROI, to your available resources. And after you have run it for a while, then comes the time to face harsh realities. It can happen that the source that you were expecting the most results from did not contribute significantly. Some other source might or might not have done well. You then use analytics and different other tools to find out what went wrong. Sometimes, you even may have to redefine your goals. In offline marketing, it's even more challenging. I think, most of the time is taken in the optimizing part, if the experiment does not work out well.

Interviewer: I see... Now, moving on, some authors out there are coming forward with this new type of distribution strategy that is focused on the product, which they are calling the product strategy. They use as an example the case of social media, where the product, by itself, can get new users to join proactively. From your own perspective, which specific characteristics should a product have to get this kind of an effect?

Respondent: Yeah, great question. (silence) I guess... I would break it down to two, maybe three main ideas. First, and obviously, the product should focus at what users want and not what you want them to use. Second, you know, the aim of any social media campaign is to accelerate brand awareness and encourage users to sign up for a trial or demo. This is where the conversion funnel starts, after all. For this, the landing page should be highly optimized. Third, having bad UI/UX can be a major reason for users dropping off. Again, product should be tested many times by the engineering team so that it does not break during the trial. I would really focus on these three above all.

Interviewer: Now sticking to this product-centered perspective... I have also found that the few researchers on growth hacking have actually defined it as the act of testing product features, but then I see all these online marketers saying that growth hacking is this broad concept. Comparing these perspectives, and to you personally... Do you see growth hacking only as feature tests, or any other experiment that aims at growing?

Respondent: As I mentioned earlier, scope of growth hacking is not only limited to product, which many people mistake it for these days. A growth hacker works closely with the marketing, sales, customer success, designing and the engineering team. It starts like this, marketing and the business unit work together in the initial stage for finding out the correct product/market fit. Marketing team can do several surveys to get more user viewpoint, customer success team can talk to the existing customers to get insights, designing team focuses on the product design and also on improving the landing page conversion rate, and the engineers work on the product which is needed by the people. So, then you go on to launch a beta version. The marketing team will do various online and offline campaigns, sales guys will pitch new prospects, get users to sign-up and go for a demo. Imagine, 40 people signed up for the trial of your product. You analyze the channels and mediums which is driving the most traffic and depending on your future targets, you have a meeting with the marketing team and agree on which channels to focus more on. You also have a chat with the sales team and customer success team, know more about the apprehensions and queries of the customers and prospects and get some amazing content ideas from there,

which you again share with your marketing team. Also, if anything breaks, the customer success guys will be the first one to know about them and thus the engineers comes into the picture. You get to know about the product loopholes and thus can set your milestones accordingly depending on the time it will take to add some additional features. You can even play around with your prospects, try segmenting them based on your product. A lot of my experiments have been product feature based. For example, by changing just the design of feedback section on our interview reports, our customer retention went up almost by 34%. Other instance would be, auto scheduling our interview process. You see, in the beginning we use to make the technical interviews happen manually over a telephonic call, but frankly it was not a scalable idea. Thereafter, we decided to use cloud telephony to automate our interview calls, in this way we could conduct even hundreds of interviews per day and was able to provide a super-fast service to our customers. Another part was that we were focusing only on technical interviews but our customers were also facing the problem of screening the resumes based on keywords. Therefore, we decided to go ahead and built a new product for them, for screening the candidates with the help of ML and AI. Though it's still in beta phase, many of our existing customers were happy to use it, and we got another idea to work with in the future. There cannot be distinctive comparison which can be made between the product and the business level. I think, product and business units are not separated from each other but are tightly coupled. Build a product, get customers, optimize the product based on feedback and the market scenario, iterate, sell again. Keep the game going.

Interviewer: Great... nice to hear your thoughts on that. Now, for the last one... how important is literature and academic research on growth hacking to you, as a growth hacker, and to the industry as a whole, from your perspective?

Respondent: I think they are very important sources for learning. Case studies are particularly important because you can look at other similar products who have taken certain steps and have succeeded. There can be many valuable takeaways from theoretical research. But, no matter how much you read, to have a fair idea, you have to get in the game and get your hands dirty. Growth hacking is full of surprises and most of the lessons are learned on the job or maybe while having a cup of coffee with a probable prospect. There are some days where you will have tons of ideas and some days where you will totally blank. You have to combine your analytical and creative characteristics to set up proper strategies for hacking the growth of your product/service.

Interviewer: Ok, that's about it. Thank you for your help!

Respondent: Sure, glad to help. Be sure to reach out to me if you have any additional questions.

Interviewer: Will do. Thank you again, bye!

END OF TRANSCRIPT

E. Sample Email Response

Several email responses were obtained. Below, a randomly selected sample of one of these responses is presented. It can be noted that email responses were overall much shorter than interview transcripts, but information was much more concise and straight to the point. Also note that some pieces of information may be marked as [redacted] due to confidentiality issues.

START OF EMAIL RESPONSE

Question 1: Are you familiar with Neil Patel and Bronson Taylor's growth hacking guide? Have you consulted any other guide?

Answer: I have found some of Patel's guides online, but I never really bothered to look into them. Growthhackers.com is a good place to find other people's experiments and ideas, and I prefer to have that kind of real examples.

Question 2: How do you usually try to come up with new ideas for hacks/experiments?

Answer: Like I said, I take other people's examples and see if I can do something new based on that. Of course you have gut feeling and try to see what is the cheapest channel that takes little time.

Question 3: Looking back to the experiments (or hacks) you have done in the past, do you believe there is a common characteristic in those most succeeding? And in those least succeeding?

Answer: Yes, I mean, experiments that appeal to the interests of niches tend to work well, if you can find a good channel for them. And also you should try to base your experiments on good data and analytics.

Question 4: Some marketers suggest that, once you've come up with ideas for different experiments to reach a specific goal, you should choose the idea for which you have the most leverage. Is this a factor you consider when choosing which ideas to test first? Do you consider any others?

Answer: Again, thinking about the channels is a great way to go about that. You can search for new channels that offer a lot for a small price, when comparing to others where you don't really take any advantage because they are too sought after. If you take the potential outcome into account, and even the time and cost of doing the test, you can somewhat prioritize.

Question 5: Some growth hacking frameworks present 6 steps – define goals; implement analytics; leverage own strengths; execute experiment; optimize experiment; repeat/iterate. Which stage do you believe presents the hardest challenge? And which one do you often waste most time on?

Answer: Well, the execution part is the most challenging. It takes a lot of time and effort to sort of go around all the unknown obstacles you find, and you don't really know what to expect and how the users will react.

Question 6: Some authors propose that online startups have created a new distribution strategy - the product strategy. It suggests that the product is able to attract new users by itself – such is the case with social networks, where users proactively invite new users to join. In your perspective, what are the characteristics a product should have to stimulate this effect? **Note:** By “product”, please consider products/services of internet startups.

Answer: Of course virality in online products does wonders, because referrals are so easy to implement and track, and you're really sacrificing little in comparison to the reach you get. Getting the right viral loops is key, and you should really get to know your users and understand what they value the most, so you can offer the proper incentives.

Question 7: Most guides on the growth hacking process are generic and not focused on a specific aspect. However, emergent literature is heavily product-focused – proposing frameworks that use product features as experiments. To you, is growth hacking only product feature based tests, or any experiment that can be done with the goal of reaching growth? Have any of your experiments been product feature-based? If so, can you compare the results from experiments done on the product level to those more generic?

Answer: I wouldn't say it is product based. It is more of a mindset, and you can do so much more than product development. It is the process of trying to do unprecedented things, getting high reach at low cost, and iterating enough times to get there.

Question 8: How important is literature and theoretical research on growth hacking to you, as a growth hacker? And how important is it to the industry as a whole, from your perspective?

Answer: I think it's great to find people with the will to dig into the concept and try to uncover stuff we don't really know. I mean, there is very little research out there you can really trust, and I find that many of the blog posts are clickbait and not really useful.

END OF EMAIL RESPONSE