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Disclaimer

Please do note that due to privacy reason, the analysis and empirical data of the fourth platform taken into consideration (listed as Platform D) will not be shown in this publication. The data are however been reviewed and they will be taken into consideration as well as being shown in the data comparison and in the conclusion in anonymous form.

Due to this editing, the index of this publication may slightly vary.

Introduction

Since the development of digital technologies, the platform business model has begun to rise and change the landscape of the market, as more and more companies embrace this approach to business.

Some of them even became some of the biggest companies of the present days, like Amazon, google and E-bay, undoubtedly demonstrating that this approach is not only valid but at times even disruptive for the market, as Uber and Airbnb have shown. That is why more and more startups these days are trying to adopt this approach, trying to emulate the success of this company. Among these platforms, only a few of them manage to arrive at a profitable and stable level.

Since the main advantage of this approach came from the positive effects created by the interactions of two or more sides of the market (e.g sellers and buyers, producers and consumers), the first problem encountered by all platforms is how to acquire enough users from both sides, given that one side will not get on board if the other side is absent.

This problem has been referred to in the literature as the “chicken or egg” problem, referring to the homonymous paradox, and solving it has strategical importance in the success or failure of the platform.

Although different kinds of strategies to overcome this problem have been identified throughout the years, most of the studies that propose to find a model for doing so start from the assumption that every solution can be used by any platform, without taking in to account contextual attributes and other factors of influence that could greatly influence the choice of which strategy adopt.

By conducting an empirical study and encompassing the geographical dimension in the research, I believe that it would be possible to remedy at least in part to this lack and achieve a more complete understanding of the problem and its solutions.

The purpose of this thesis, therefore, is to research how platforms in a similar context, in this case, the city of Berlin, overcame the chicken or egg problem, what techniques do they use, and if there is any identifiable pattern of trends. At the same time, this study aims to establish if an ecosystem like the one of Berlin is favorable for the growth of a platform business, and if and how the relationship

between the environment and a platform affects in any way its effort of overcoming said problem.

methodology

Described in the following chapter, it is the qualitative method adopted for this thesis. In order to achieve a valid gathering and analysis of data following the qualitative methods, the approach utilized, and the way of research adopted are described in detail.

Theoretical part methodology

The literature for this thesis was selected in order to offer a coherent and complete overview on the problem at hand and give to the reader a framework, to better understand the dynamics that take place in a platform ecosystem in all its parts.

The sources for the literary review were generally taken from an academic context, with some exceptions for some internet sources used for examples. The publications taken into consideration for the first chapter were selected based on their focus on the platform ecosystem, and the possibility to find explicit or implicit insight regarding one or more specific part of it.

We started by conducting a research by the keyword “platform”, as well as “multisided market” and other more specific combinations (e.g. “platform governance” or “network effect in multisided market”) looking for abstracts, titles and references. The sources found included books, academic and journalistic articles and internet sources. The latter were dismissed for their scarce scientific validity.

The findings also reveal that the word platform is used in two different meanings in the academic literature one more technology-aligned and one more market-aligned. Although not always mutually exclusives, for this thesis we have focused more on the market-aligned meaning of the term, since is better suited to describe the platform ecosystem in relation with the thesis research questions.

A similar approach was also taken for the second chapter, using keywords like “chicken or egg platform dilemma” and similar. In this case a back and forth

research throughout the text was necessary to extrapolate the various techniques used for overcoming the problem and make specific all field research using those as keywords.

In this case, all kind of sources found where used, even though internet sources where a minority, and only used to refer examples and facts relative to specific case studies.

Empirical part Methodology

Regarding the methodology for the empirical part, different research methods were taken into consideration and after going through an elimination process, the method deemed more suitable for the empirical research for the purpose of this thesis was found to be the semi-structured interview.

Initially both qualitative and quantitative research where taken in to consideration, but quantitative research methods where discarded. Since the scope of the research is to discover the different approaches that Berlin Platforms utilized to solve the so called “chicken or egg problem”, a quantitative approach presented a number of issues.

Firstly, the sampling segment chosen is too variegated and different for quantitative to provide the depth and complexity of data necessary to answer the research question.

Furthermore, quantitative research methods, such as surveys and questionnaires, lack the possibility of a direct interaction between the researcher and the subject, and as such the possibility to adapt to the context and probe further if new or unexpected information are revealed.¹

Then various techniques in the qualitative research field where evaluated: focus group, case study, grounded theory, interview. The choice between them was dictated mostly by time and resources constraints.

The focus group could have been proven useful for exploring the various aspects of the problem via the interaction between the interviewees, but was excluded due to the impossibility of organize an interview with multiple interviewees at the same

¹ Yilmaz, kaya; 2013, pp 312 et seq

time and place. Also, the lack of an expert moderator could have lowered the quality of the data gathered.²

The case study is a technique that in general can provide an holistic picture of the situation and it might prove useful to illustrate some techniques used by the most successful platform, however, it was discarded due to the difficulty of retrieve a satisfactory amount of data of the quality necessary (namely, academically valid report and accounts and/or post mortem report on berlin platforms) to justify this choice.³

The grounded theory method utilizes the gathering of data from the field for producing a theory, and then that theory continues to be confronted and changed as new data are gathered, in “A spiral of cycles of data collection, coding, analysis, writing, design, theoretical categorization, and data collection.”⁴ This approach may be proven useful, since theories are constantly refined by this method, but due to the large amount of data that is needed (20 to 60 individual interviews⁵) it was not feasible due to the time frame requested by this thesis.

Using the interview as a method for data gathering, it was still possible to collect a viable amount of valuable information, while still comply with the time and resources constraint

In his book “an introduction to qualitative research”, Flick describe five types of interviews from which the most suitable for the scope of this thesis was chosen (Chapter 13: interviews): the focused interview, the semi-standardized interview, the problem centered interview, the expert interview, and the ethnographic interview.⁶

The focused interview method consists in stimulate the interviewees (with a stimulus such as a video, or an audio recording) and then the impact on the interviewee is studied.

The problem-centered interview was developed for look in to sociological problems and it was created to gather biographical data of a subject over a particular issue.

While both of these approaches are useful and some of the elements utilized for data collection may be helpful (e.g. some of the probing techniques utilized in the

² Patton, M. Q.; 2002, pp 385 et seq.

³ Mason, J.; 2002, p. 166

⁴ Flick, Uwe; 2009 pp.427

⁵ Creswell, John W.; 2013, table 4.1, pp. 104 et seq.

⁶ Flick, Uwe; 2009, pp. 149-176.

problem-centered interview), both of them were discarded due to the little relevance for the topic.

Since there is a geographical dimension in the study proposed, the ethnographic interview was also taken in consideration. Due to the variety of the subjects (background, instruction, origins) this approach was discarded as well.

In the semi-structured interview method, the questions are written and generally proposed in order, but unlike the more rigid structured interview, it is possible to probe and expand further if an answer is particularly interesting for the research. It is also possible to deviate from the original order of questions if it is needed to maintain a more natural conversation with the interviewee.

The semi structured interview method taken in consideration by Flick, however, is a specific elaboration of Groeben and Scheele⁷, and can be also called subjective theory. This theory assumes that every interviewee has some degree of knowledge on the topic, and that all of them have a theory about it, that can be reconstructed and organized via interview.

This method does not present any problem per se, and it might have been the one employed, but the expert interview, a variation on this approach, was better suited for accomplish the task at hand in a more satisfactory way.

The expert interview is in fact a specific way of utilization of the semi-structured approach, that focus on the capacity and experiences of an expert in their own field. The figure of the expert is defined as follow:

“Experts have technical process oriented and interpretive knowledge referring to their specific professional sphere of activity.

Thus, expert knowledge does not only consist of systematized and reflexively accessible specialist knowledge, but it has the character of practical knowledge in big parts. Different and even disparate precepts for activities and individual rules of decision, collective orientations and social interpretive patterns are part of it. The experts' knowledge and orientations for practices, relevancies etc. have also - and this is decisive - a chance to become hegemonic in a specific organizational or functional context. This means, experts have the opportunity to assert their orientations at least partly. By becoming practically relevant, the experts'

⁷ Scheele, Brigitte; Groeben, Norbert; 1998,. Cited From: Flick, Uwe; 2009

knowledge structures the practical conditions of other actors in their professional field in a substantial way.”⁸

Following this definition, the sampling unit for the interview is been defined as the professionals which are part of a platform company in Berlin. The method of sampling would be the purposeful convenience sampling method⁹ due to the constraints already mentioned.

This interview method allows a more colloquial and dynamic stile of conversation so that the interviewees can better express themselves. The stile and wording of the questions, exposed in the guideline for the interview (appendix 1), is plain and simple, to ensure clarity and at the same time put at ease the interviewees.

Open-ended and closed-ended questions are both used together, with closed-ended ones only used for further open-ended probing (e.g. *“do you prefer x or y? And why?”*).

To not disrupt the flow in the conversations, the questions do not need to be answered in a fixed order but can be asked at different times depending on the answer of the last question.

Data Analysis

The method chosen for the data analysis is the one proposed by Mayring, which allows a systematic canalization and exposition of the data gathered.

First of all is important to note that there are two kind of information: primary, if they directly relate to the research question, and secondary if the information are related in a more indirect manner (e.g. context information). In interviews that are recorded live, it is not uncommon to find both of them.

The information needs to be divided in categories, which have the advantage of present them in a clear, concise way. In this case, the categories derive from the research questions and the theoretical part of this thesis and they are divided in two macro-categories: user attraction, and geographical influence.

Under these two macro-categories there are other categories, or units:

⁸ Bogner, Alexander; Menz, Wolfgang; 2002, p. 46, cited from: Flick, Uwe; 2009

⁹ Miles, Matthew B.; 1994, p.28

user attraction	
initial side of acquisition	this category will help clarify if there is any preferred choice between simultaneous on- boarding, the supply side or the demand side while attracting users on the early stages.
initial target focus	This category will be used to verify if in early stages it is convenient to focus on a particular target group
adopted strategy	In this category the strategy/strategies adopted to overcome the chicken or egg problem are identified.
Unscalable efforts	in this category are explored the efforts made by platform in order to acquire the first costumers and that are impossible to sustain in a stable manner.
Pivoting	real and potential changes that have or could have improved the platform at early stages
geographical influence	
geographical situation	in this category are explored the perceived advantages or disadvantages of being in Berlin
service/product localization	in this category is discussed the decisions of launch and expansion of the platform

Table 1: explanation of the chosen categories

These categories will be subsequently organized in a matrix for ease of consultation and clarity.

It is necessary to include the information in a complete way for them to be valid. This can be done by including the integral transcription of the interviews (here in appendix 1) and through direct quotation (in the main body of the thesis).

Transcription of the interviews

The interviews are all conducted in English and therefore do not need a translation. The transcription method used is the method proposed by Dresing & Pehl, the simple transcription method.

In this method, on the contrary from the complex one where everything is transcript as recorded, the transcription is smoothed in favor of clarity. However it is important to state that the transcription is not summarized and aside from the changes stated in the following paragraphs, nothing has to be altered.

Following the indication of Dresing & Pehl, dialect needs to be reported as English and the informal contraction like “wanna” are changed in their extended form, like “want to”.

Stutter and discontinuation are omitted, double wording is transcribed only for stating emphasis and the punctuation is smoothed for legibility. Emotional non-verbal utterances are stated in brackets, for example (laughter, sighs), and monosyllabic responses are always transcribed with an interpretation, for example “mhm” (positive). Incomprehensible passages are transcribed as “(inc.)” followed by a reason (e.g. “phone ringing”).

The Platform ecosystem

Definition of platform

To understand the core elements that define the platform model and explain some of its most important principles, it is necessary to ask some relevant questions: what constitutes a platform? Why is this model relevant? What are the relations between the users? What mechanics differentiates the platform business model from the traditional business model?

To answer this and other questions regarding this topic it is useful to start with some clear and concise definitions.

Parker defines the term as follow:

*"A platform is a business based on enabling value-creating interactions between external producers and consumers. The platform provides an open, participative infrastructure for these interactions and sets governance conditions for them. The platform's overarching purpose: to consummate matches among users and facilitate the exchange of goods, services, or social currency, thereby enabling value creation for all participants."*¹⁰

While Choudry states that platform perform two specific roles:

"1. They [the platforms] provide an open, participative, plug-and-play infrastructure for producers and consumers to plug into and interact with each other.

*2. They curate participants on the platform and govern the social and economic interactions that ensue."*¹¹

It is clear from these definitions that the platform model differs radically from the traditional pipeline model, in which the final user is just the consumer of the value unit, identified as the product/service offered by the producer.

¹⁰ Parker, Geoffrey G.; Van Alstyne, Marshall W.; Choudary, Sangeet P.; 2016, p.5

¹¹ Choudary, Sangeet P.; Parker, Geoffrey G.; Van Alstyne, Marshall W.; 2015, p.24

In the platform model, the value is instead created by the interaction between the related set of users. Rules and conditions are applied to facilitate this exchange, so that value can be provided to all the users.

One example of this can be a payment/credit card: we have two sets of users, the merchants, who need to accept this method of payment, and the consumers, which need to adopt and consistently use this method in order to gain value from it. The credit card system is the platform, which enables smooth money transactions, more security, and another number of services. These services became valuable only with the usage of the system, or in other words, the interaction between users. If no merchant accepts this method, or if no consumer adopts it, then the services provided are useless. Vice versa, when more interactions are possible, more value is created for both sets of users¹².

Platform versus Pipeline

At this point is important to clarify that platform as such already existed from years: one example of this is the newspapers, which connected subscribers and advertisers.

However, it is only in recent years that the platform model became a valid alternative to the more traditional “pipeline” model: this has been possible thanks to the development of new technologies, which greatly reduce the need for physical resources and assets and facilitate the interaction between users.¹³

The differences between these two models are many: in the traditional pipeline model, the customer is the consumer of the product, which is designed to be tailored to its needs. The customer interacts only with the product, which has an intrinsic value by itself, and the gain comes from charging the customer for the use of the product.

In the platform model, instead, both producers and consumers are considered customers. The design of the product/ service offered is focused on both sets of users, and the purpose of the product is to favor interaction and valuable

¹² Chakravorti, S.; Roson, R.; “Platform Competition 2006, pp.118 -142. Here: p. 119

¹³ Parker, Geoffrey G.; Van Alstyne, Marshall W.; Choudary, Sangeet P.; 2016, pp.54–60, 62. Here: p 54.

exchanges between them, which makes the community extremely valuable. Lastly, the gain for the platform may come from different sources than charging the customer (E.g. percentage on transactions.)¹⁴

The shift from the pipeline model to the platform model is specifically due to three technologies that greatly reduced the friction in global interaction: the cloud, which permitted to the users to access and create content on a global scale, the mobile, which granted instant access to this digital infrastructure virtually everywhere and at any time, and the social media, which connected millions of users all across the world.¹⁵

Thanks to these and other technologies, the platform model now also allows users to gain from their under-used assets in a system called “sharing economy”, in which users with this kind of assets (e.g. cars, houses, or even own’s working time) are matched with other users willing to pay for those product/services.

One example of this is Uber, the ride-sharing platform that allows users to become taxi drivers on request. An app on the phone of the users tells the driver where to pick him up, the destination, and the way to get there thanks to GPS. The company already has the payment details of the user, so that once the distance is verified, the transaction happens automatically, and the driver and the user don’t need to deal with payments. The company profit by taking a percentage on the transaction.¹⁶

Another example is Air B&B, which connects users in need of accommodation with other users that have houses or rooms to spare. Started in 2008, Air B&B offers now more than 6 million accommodation in 191 countries.¹⁷

Both of these platforms do not own any of the physical assets that they offer, both houses and cars are owned by the users. This favored the rapid growth of these platforms, which changed the nature of the traditional supply chain while harnessing the value of an untapped resource: the community, before only a

¹⁴ cf. supra, pp. 54 et seq.

¹⁵ Bonchek, M.; Choudary, Sangeet P.; 2013.

¹⁶ Wallsten, S. ;2015 pp. 1-21. Here pp 3 f.

¹⁷ Anonymous Author, retrieved the 19/05/2019 from: <https://press.airbnb.com/about-us/>

source of demand, now part of a complex ecosystem of prosumers¹⁸ which aggregate and interact spontaneously¹⁹.

This change is one of the most important factors for the ability of platforms to scale so rapidly. Allowing external consumers and producers to create and exchange value without friction and in a decentralized manner, instead of aggregate and confine both production and consumption in specific areas (e.g. factories, retail center), create a global cycle of creation and consumption of value that goes on uninterruptedly.²⁰

Network effects

According to Liebowitz & Margolis²¹ before and Shapiro & Varian²² after, the value that the user receives is divided in two parts: the autarchy value, which is the intrinsic value that the product retains, even if there are no other users, and the synchronization value, the added value derived but the interaction with other users.

The phenomenon by which in a platform the value created by each user is influenced by the number of users is called Network effect. One good example of it is the social networks, which became more valuable the more people use it.

To quantify this effect concerning ethernet boards, Bob Metcalfe theorized that:

“while the cost of the network grew linearly with the number of connections, the value was proportional to the square of the number of users. For example, given n users of ethernet cards, the number of possible connections that can be made is $n(n-1) = O(n^2)$.”²³

¹⁸ “A person who both consumes and produces a particular commodity.” *Collins dictionary*. “A consumer who becomes involved with designing or customizing products for their own needs.” *Oxford Dictionary*

¹⁹ Parker, Geoffrey G.; Van Alstyne, Marshall W.; Choudary, Sangeet P.; 2016, pp. 8 et seq.

²⁰ Choudary, Sangeet P.; Parker, Geoffrey G.; Van Alstyne, Marshall W.; 2015, p. 25

²¹ Liebowitz, Stan J.; Margolis, Stephen E.; 1994, pp. 133-150

²² Shapiro, Carl; Varian Hal R.; 1999

²³ Hendler, James ; Golbeck, Jennifer; 2008, pp. 14-20. Here: p 14

This is generally accepted nowadays as Metcalfe's Law, which is been used to explain the success of numerous new technologies (from the mobile phone to social network) and that explains the exponential growth of value that is possible with a network.

Metcalfe's Law of Network Effects

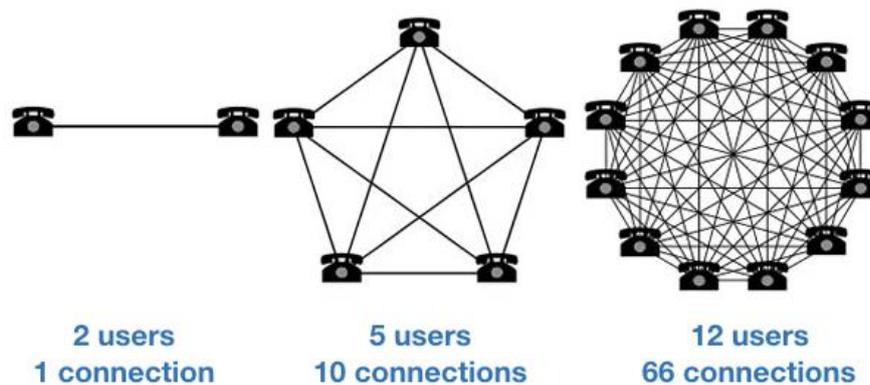


Illustration 1: visual representation of Metcalfe's law ²⁴

This kind of effect, when platforms are involved, often comprehend not only one set of users, but two or more.

Using again Uber as an example, it is evident how the interaction happens between two sides of the market: the drivers and the passengers. Without passengers to drive around or, vice versa, without drivers to take the passengers to the destination, the value of Uber for both sets of users would be zero.

In this sketch made by David Sacks, (product leader of PayPal, founder of Yammer) we can see how Uber utilized a network effect with positive feedback to increment the demand in both markets, creating in this way a virtuous cycle.

²⁴ image retrieved the 22/05/2019 at: <https://www.reforge.com/growth-thoughts/mar-9-2018>

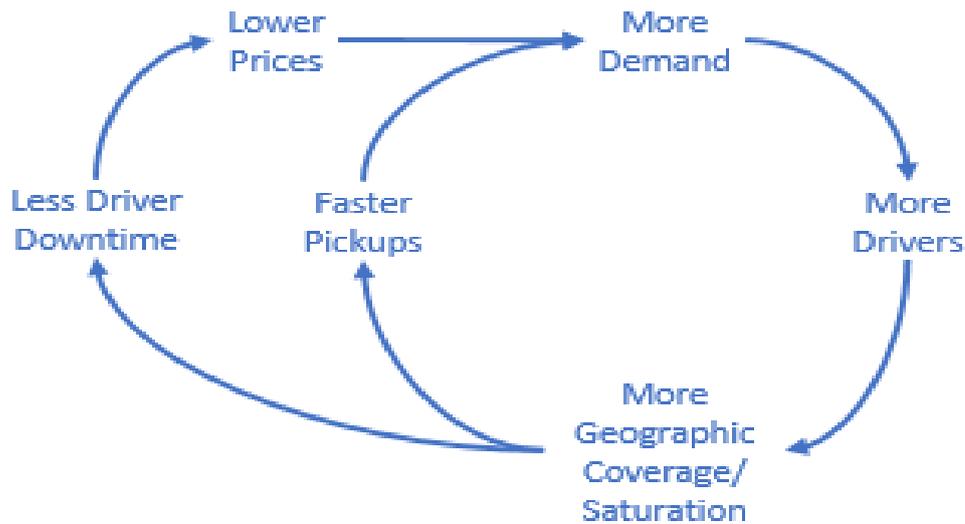


Illustration 2: Uber's Positive feedback cycle as depicted by David sacks ²⁵

In these two-sided networks, there are in general four kinds of network effects that can be developed. There are same-side effects, which are the effect caused but one set of users that affect the same set, for example the effects that buyers have over buyers, or sellers over other sellers, and the cross-side effects, which are the effects caused by one set of users to the other (e.g. the effect of buyers on sellers). Both can be either positive or negative.

A negative same-side effect happens when there is a downside on the growing number on one side of the platform. One example of this can be E-Bay, one of the biggest digital Marketplaces as of now: when the number of sellers on the platform increase, so does the competition among them, making it more difficult for other sellers to enter the platform.

A negative cross-side effect happens when the users from one side of the market affect negatively the other set of users. For example, if in a platform the number of advertisers (and consequently the number of ads) grow too much, the service offered to the consumers will lower on value.

A positive same side effect occurs when the synchronization value created by the platform increase when the number of users increases, like in the peer-to-peer exchange platforms, where the more people share a resource, the more easier it is to find the desired item and the faster is to download it.

²⁵ image retrieved the 22/05/2019 at: <https://medium.com/hackernoon/the-network-effects-of-ubers-master-plan-or-why-travis-kalanick-is-captain-nemo-46d521a03b2d>

Lastly, a positive cross-side effect occurs when the changes in one set of users affect positively the other set. This happens for example in platforms like Soundcloud, the music streaming platform, where the more music is uploaded on the platform, the more the value of the service grows, and the more users are attracted and start to use it.

It is possible, or better, probable, that this kind of network effects will not occur one by one, but rather at the same time, interacting and growing in complexity. Taking the aforementioned example of E-Bay, it is possible to observe that even if the same-side effect on the buyer side is negative, the cross-side effect that the same growth triggers is beneficial for the user side, which found more value in the service.

There are indeed other tools that can be utilized for the growth of a platform, one of these is the price effect²⁶. This effect occurs when a change of price affects, positively or negatively, the market. As a tool for business growth, however, is a term utilized when a discount, a reduction or a giveaway is applied for attracting more users, like in the case of Amazon limited free access to the Kindle Unlimited platform²⁷ or the one-month Amazon Prime Trial²⁸.

The price effect, however, lasts as long as the variation of price takes place, and even if it may be a good way of seizing a relevant share of the market for a period of time, it needs a large number of users before becoming profitable²⁹.

Another useful tool is the brand effect, which occurs when the users start to associate the platform brand to a good quality service/product. The problem here is that brand effects tend to be difficult to sustain and may be expensive.

The other important point regarding these tools is also that, contrary to the network effects, these tools do not trigger the virtuous cycle so important for platform growth and sustainability.

²⁶ Not to be confused with the price strategy.

²⁷ Kindle Unlimited Sign Up. Retrieved the 23/05/2019 at: https://www.amazon.com/kindle-dbs/hz/signup?encoding=UTF8&ref=us_ku_qs_KindleUnlimited

²⁸ Amazon Prime. Retrieved the 23/05/2019 at:

https://www.amazon.com/gp/prime/pipeline/signup?ie=UTF8&%2AVersion%2A=1&%2Aentries%2A=0&primeCampaignId=primeMobileSignup_storePicker&renderingType=mobile&showLandingPage=1

²⁹ Needleman, Sarah; Loten, Angus; "When Freemium Fails," Wall Street Journal, August 2012.

Retrieved the 23/05/2019 at:

<https://www.wsj.com/articles/SB10000872396390443713704577603782317318996>

Network effect and network externalities

In the literature regarding the topic, the term network effects and network externalities are often used interchangeably as if their meaning was the same. While it is true that the terms refer to the same phenomenon, it is also true that they refer to two different aspects of it, and therefore are conceptually distinct.

The network effect has been already extensively defined, but in order to understand how a platform grows it is also important to define network externalities.

The term refers to the economic concept of externalities, which happens when the activity of production or consumption of a subject influences, negatively or positively, the welfare of another subject, without the latter receiving compensation (in the case of negative impact) or paying a price (in the case of positive impact) equal to the cost or benefit supported / received³⁰.

This, applied to network effects, explains how when a user decides whether or not to be part of the platform, the influence in increasing the value for the other users that its joining might have, is almost never taken into account.

The problems that ignoring this positive effect may cause, need to be considered in the early stages of growth of a platform, and these externalities need to be internalized for achieving the full potential of the network effects.³¹

Platform architecture

As we saw with the previous definition, any platform has at its center one initial interaction on which it focusses, at least in the beginning. Without any interaction from buyers and sellers, there will be no E-Bay, without any exchange between users there will be no Facebook, and so on. This first interaction on which the platform is based is called “Core interaction” and is composed of three main elements: the participants, the value unit, and the filter.³²

³⁰ Buchanan James M.; Stubblebine, Craig. 1962, pp. 371-384. Here pp.371 et seq.

³¹ Liebowitz, Stan J.; Margolis, Stephen E.; 1994, pp. 133-150. Here pp.134 et seq.

³² Parker, Geoffrey G.; Van Alstyne, Marshall W.; Choudary, Sangeet P.; 2016, pp.38

The participants are all the different sets of users that interact on the platform. Generally, there are two sides on every single interaction, the provider and the consumer, and although in some cases a single user can be both (a “prosumer”, as mentioned before), their role in a single interaction need to be clearly defined for the platform to work correctly.

The value unit is the minimum amount of value exchanged between users. Some examples may include a single video for YouTube, a single picture for Instagram or a single ride for Uber. In some cases, like for networking or marketplace platforms, the value unit can be considered the listing or the product or the services that need to be exchanged (e.g. the listing of available houses on Air B&B, or the list of services on Upwork)

A filter is a tool that ensures that all the users that interact with the platform receive only the value unit relevant to them and avoid a flood of irrelevant contents that may eventually drive users away from the platform. This tool also ensures the first layer of curation, not on the contents itself, but on the priority in which these contents are sorted out and presented to the users. One example of a filter is the keyword searching function or the YouTube correlated video algorithm.

While this element remains fixed, other elements, or features, can change, and be added, modified or removed over time. This process is called “modularity” and refers to “*the degree to which changes within a subsystem do not create a ripple effect in the behavior of other parts of the ecosystem*”.³³ This allows independent part of the platform to evolve and adapt when the situation requires it, without interfering with other systems.

Decreasing the dependencies in the ecosystem of a platform makes it more adaptable to changes in market and technology. The possibility of producing and implementing new modules developed externally, by giving just rules and direction regarding the final product and not the way in which it is developed greatly reduces the effort of integrating new, better modules in the platform.³⁴

This changes and adaptation that the platform undergoes are part of the process that goes by the name of “Evolvability”. The partition in core interaction and modules make so that there is no necessity to reinvent and rebuild the whole system every time a change occurs in the market or when there is the need of

³³ Tiwana, Amrit; Konsynski, Benn; Bush, Ashley A.; 2010, pp. 675–687, here pp.678

³⁴ cf. supra, pp. 683

accommodating different requests, effectively granting the platform the ability to evolve.³⁵

Platform governance

The concept of platform governance can be defined as the set of rules, restrictions, and principles that a platform needs to function properly and make strategic decisions. This includes subjects like gatekeeping, pricing,³⁶ conflict resolution among users, and punishment/reward systems.³⁷

Necessary for the regulation of the platform ecosystem, an error in the governance strategy may have very negative effects on a platform: In 2018, Facebook has lost one million of European users due to problems in its privacy policy and its inability in the identification and elimination of malicious content³⁸, while in 2016 twitter lost two million due to low quality interactions.³⁹

One of the most frequent problem, especially in platform with a huge number of users, is the gatekeeping. Gatekeeping refers to the criteria applied by the platform owner in regard of which kind of content and users are allowed into the platform's ecosystem.

Often these criteria are enforced by a gatekeeping mechanism such as algorithms, captcha, and others, specifically created for separate legitimate content from the rest (fake listings and/or profiles, inappropriate images and posts), but the more users a platform has, the more the content influx, which leads to more difficulty to maintain an ideal level of curation in this regard.

An example of optimal governance in this regard for this may be the method adopted by Pay-pal⁴⁰: since the fake transaction where costing around ten million dollars per month and it was impossible to monitor all of them, they took a hybrid approach, using an algorithm to flag suspicious transactions and a human to verify that the transaction was effectively fraudulent. This way the error made by the

³⁵ Baldwin, Carliss Y.;Woodard Jason C.; 2008, p.8

³⁶ Tiwana, Amrit; 2014. pp.117 et seq

³⁷ Evans, David S.;Schlamsee, Richard;2016, p.166

³⁸ Anonymous Author. "Facebook loses a milion european users in three months" The Independent, October 2018 retrieved the 05/06/2019 at <https://www.independent.co.uk/life-style/gadgets-and-tech/facebook-users-europe-drop-mark-zuckerberg-cambridge-analytica-a8609716.html>

³⁹ Haque,Umair; 2016

⁴⁰ Thiel, Peter; Masters, Blake; 2014, p.108

algorithm where minimized and the fake transaction kept under control, ensuring a through regulation of the value unit.

Another important point in governance is how the platform relates to the content creators, what kind of rules are in place and what kind of measures are in place to enforce them. Since sometimes it is difficult for the platform to survey and judge any misdemeanor perpetrated by the users, most of the time this type of screening is made directly by themselves, thanks to what can be defined as social curation⁴¹. Some examples of this are rating systems, reviews, and signaling, which in this context refers to the action the user makes to report a case of bad conduct, (E.g. the “Report this post” button on Facebook).

This is usually followed by various degrees of penalization: as an example, it may start from a reprimand (e.g. the copyright strike of You-Tube), escalating to the demonetization or removal of the content, and finishing with the provisory or permanent banishment of the user from the platform (commonly referred as “Ban”).

Governance is essential for minimize problems, flaws and misdemeanors on a platform while at the same time ensuring the fairness of every interaction, thus helping shape the whole platform ecosystem.

Pricing strategy

To better understand how the pricing strategy works for platform business, it may be useful to confront it at first with a more traditional strategy.

In a traditional business, the pricing is decided by balancing the volume of sales and the margin, for example: with higher prices, the volume is reduced, and the margins grow while at a lower price is the opposite.

The consumers also play an important role in the price setting: if the demand is sensitive to price, the prices and the margin will be necessarily lower, while the volume will be augmented. With users that do not care about the price instead, High prices will generally lead to higher profits.

It may happen that the same product can be sold at two different categories of users at different prices, or to offer a discount for a bigger volume purchase, but

⁴¹ Choudary, Sangeet P.; Parker, Geoffrey G.; Van Alstyne, Marshall W.; 2015, p.41

even in these cases the product offered is never sold at or below marginal cost, as doing such will not only reduce the profits to zero, but it will actually augment the costs of production.⁴²

However, this kind of case may happen in the platform Businesses. Even though platforms, just like traditional businesses decide the prices by balancing volume and margins, cross-side network effects make the demand of each set of users dependent by each other.

If for example in a platform the price for one side (side A or subsidy side) is reduced, not only more users will be attracted from that side, but it will make possible to increase either the prices or the attraction power on the other side (side B or money side). This increased value on side B augments exponentially the importance of having users on side A so that the price for side A is reduced further, as this loop continues.

This is why it is not unusual to find in the platform business offers that go below the marginal cost or even at a negative price (where users get rewarded for using the platform at a cost for the platform itself)⁴³. the table below offers different examples of this in different kind of businesses ⁴⁴.

⁴² Evans, David S.;Schlamsee, Richard; 2016, pp. 25 et seq

⁴³ Rysman, Marc; 2009, pp. 125-143, here p.130

⁴⁴ Evans, David S.;Schlamsee, Richard; 2016, p.34

Multisided platform	Money side	Subsidy side	Typical price on subsidy side
Video game consoles	Game publishers pay royalties	Consumers pay marginal cost or less for console	Below cost
PC operating system	Computer users pay directly or indirectly through computer maker.	Developers do not pay access fees for operating system APIs and only pay a nominal amount for a software development kit.	Free
Enclose shopping malls	Retail stores pay	Shoppers do not pay, get free parking at suburban malls, and often get free entertainment.	Free to negative
US Real estate brokers	Sellers pay commissions	Buyers do not pay	Free
Equity exchanges	Liquidity takers pay commissions	Liquidity providers often receive subsidies	negative
Online marketplaces	Sellers usually pay commissions	Buyers often do not pay	Free
Job recruiters and online job boards	Employers pay for postings or recruitment.	Job seekers do not pay	Free
Yellow pages	Business pay for listings	Consumers do not pay	Free
Search engines	Business pay for advertisements	Searchers do not pay	Free

Table 2: examples of pricing strategies in different platform 45

⁴⁵ Evans, David S.;Schlamsee, Richard; 2016, p.34

This kind of price effects often reflects also on the usage of the platform itself, where one set of users, usually de subsidy side, tend to use only a single platform, while the money side tends to use multiple. For example, one person may use just a single platform for book an airplane, but airlines are forced to deal with all the reservation platforms in order to maximize the profit. The use of multiple networks or platforms such as the one described is called “multihoming”.⁴⁶

In this perspective, the platform can be viewed as the only access getaway to a portion of the subsidy side. This triggers a competition between platforms for capsizing a bigger part of the subsidy side in order to apply monopoly prices to the money side. This competition often leads to a drastic change in prices for the money sides, with little or no change for the subsidy side.⁴⁷

The chicken or egg problem

Definition of the Problem

When we talk about the “chicken or egg problem”, or “chicken or egg dilemma”, we refer to a paradox in which one’s trying to determine which of two items comes first, since it is impossible to have one without the other.

This is exactly this kind of problem that platforms need to face at the early stages of development: if you need to attract two different sets of users which gain value from one another, how do you attract the first set? and which set do you start with?

Of course, users that want to buy something, for example, will not go to a platform that does not have any sellers. On the other hand, though, sellers will not use a platform that does not have any buyers, thus creating the paradoxical cycle of the chicken or egg problem.

⁴⁶ Armstrong, Mark; 2006, pp. 668-691 here pp.682 f.

⁴⁷ Rysman, Marc; cf supra, p 131

This tends to happen because as we have seen in the previous chapter, platforms strongly rely on network effects in order to create more value, and so when the interactions between users are not possible it will be harder to retain customers.

This entails that even when there are sufficient users on both sides, if something prevents the match between both sides, for example, an error in platform governance, the users will not interact and therefore create value.⁴⁸

Given these premises, it is not difficult to understand how solving this problem is of fundamental importance for any platform, as it means to create the first interactions between the users, which will ideally bring to the achievement of the critical mass and viral growth⁴⁹.

To achieve all this the platform needs, first of all, to be designed in a way that grants the least possible friction for users to join, and need to incentivize commitment and participation, by pulling users toward the platform. This is commonly referred to as “pull strategy”

Push versus pull strategy

The “pull strategy” is a marketing strategy that is designed to attract users to the platform which is specifically designed for this objective. Users are rewarded for joining and for bringing other users. It is characterized by the possibility of a fast reaction toward market changes before the competition and by the way experience is developed toward fast responses and pivoting.

The “push strategy” instead, focus more on the creation of awareness regarding a particular service or product, figuratively “pushing” it into the awareness of the users, in a linear process that goes from the company to the consumer, as shown in the image below.

⁴⁸ Ambrus, Attila; Argenzano, Rosella; 2004

⁴⁹ Both discussed further down in this chapter

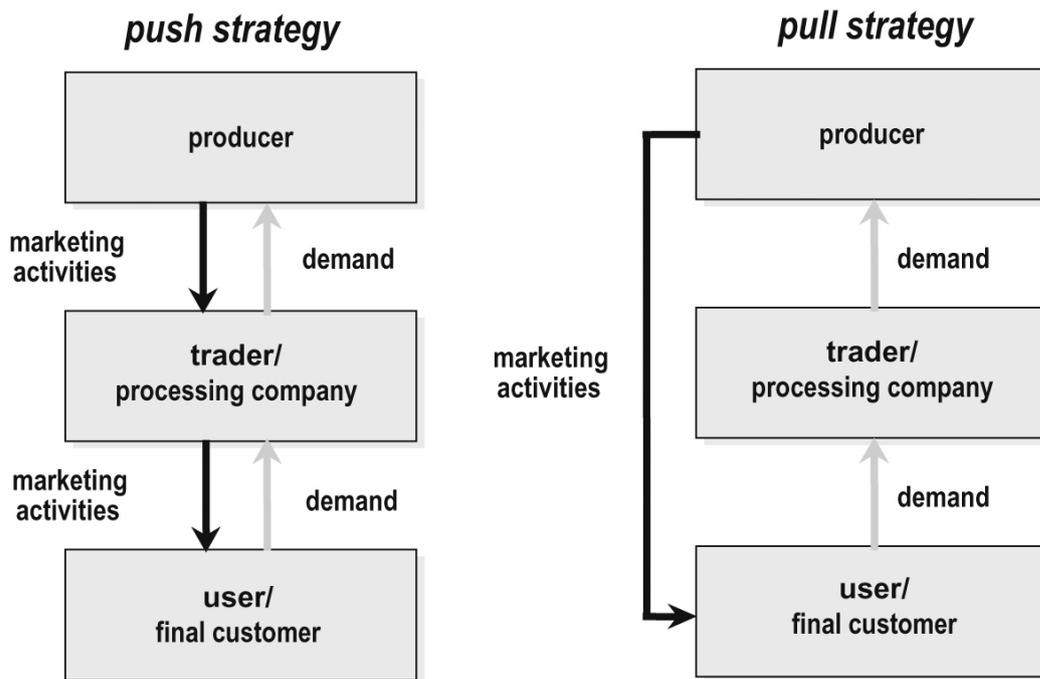


Illustration 3: flowcharts of push strategy and pull strategy compared ⁵⁰

The push strategy is particularly suited for the platform market for two main reasons: firstly, the market of the platform, due to its own nature, is dynamic and tends to change abruptly, and requires fast responses and changes to achieve success.

Second, in a world where the digitalization has changed the method of the fruition of advertisement, multiplying exponentially the exposure to competing services and products, causing the awareness of the user is not enough anymore, and that is why a strategy that helps retain and multiply users based on attraction is more efficient. ⁵¹

That is not to say that the push strategy has become completely irrelevant, but rather that the shift from traditional market to the platform market has resulted in a change of strategies due to their efficiency in that contest.

⁵⁰ retrieved the 09/07/2019 at: <https://www.leadbi.com/push-pull-marketing-strategies-what-they-mean/>

⁵¹ Parker, Geoffrey G.; Van Alstyne, Marshall W.; Choudary, Sangeet P.; 2016, pp. 84 et seq

Viral growth

Complementary to any of the techniques that will be explained below, viral growth is a pull-based strategy in which awareness and attraction spread in a person-to-person way, similar to the spreading method of an infectious disease.

This analogy implies a large-scale fast-spreading carried out largely by a person-to-person process. Different from the broadcast method, a push-based strategy in which the information is shared by a single source, the viral growth is achieved when one source tells the information only to few others, which in turn tells to few others and so on⁵², as explained in the figure below.

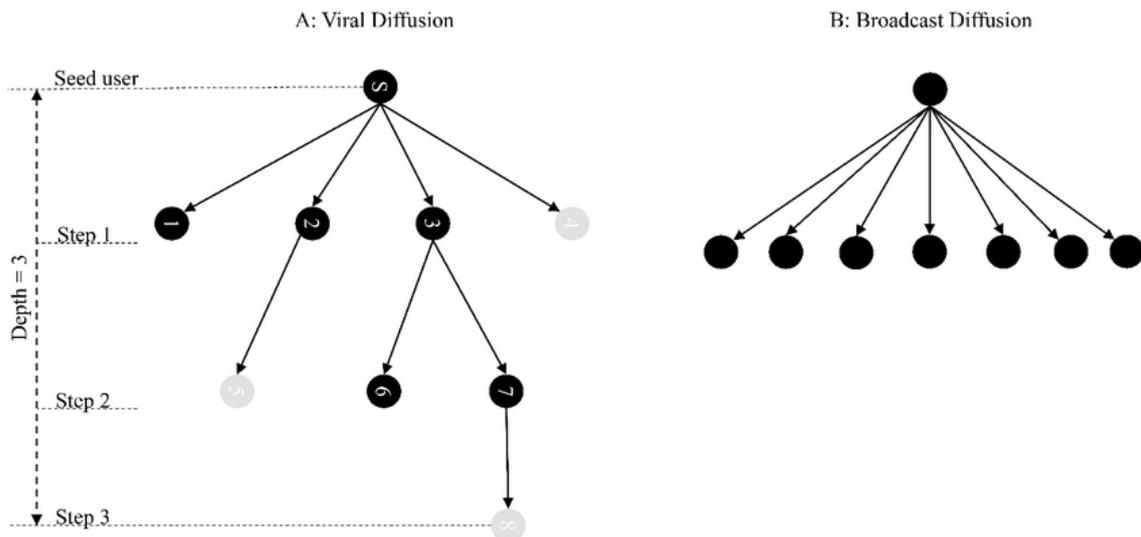


Illustration 4: examples of viral and broadcast diffusion cascades⁵³

Parker explains the viral growth cycle of platform as the interaction of four design elements: the sender, the value unit, the external network, and the recipient.⁵⁴

Different from the user who spread awareness by word of mouth, the sender is someone that spread its own creation around in order to have something in return (from social feedback to responses on a questionnaire).

⁵² Goel, Sharad; Anderson, Ashton; Hofman, Jake ; Watts, Duncan J; 2016, pp. 1-17, here pp. 1 et seq.

⁵³ retrieved the 09/07/2019 at: https://www.researchgate.net/figure/Examples-of-viral-and-broadcast-diffusion-cascades-Arrows-indicate-the-flow-of_fig1_324551067

⁵⁴ Parker, Geoffrey G.; Van Alstyne, Marshall W.; Choudary, Sangeet P.;2016, pp.101 et seq

The value unit as already saw is the minimum value created by the users. Since not all the value units are spreadable, it is important for any platform to have at least one spreadable value unit in order to achieve viral growth.

The external network is the mean by which the value unit is spread. It is not directly related to the platform and it can range from social media like Facebook to messaging systems like mails.

Finally, the recipient is the one who receives the value unit created by the sender. If the value unit is valuable enough the recipient will join the platform and/or spread the value unit on another network becoming himself a sender.

An example of this cycle may be found in the online platform 9gag. A user of 9gag (the sender) create a funny picture (the value unit) which get posted on 9gag and on Facebook (the external network) the Facebook friend of the user (the recipient) finds the picture hilarious and decide to join 9gag, and/or to share the picture with other people on WhatsApp (thus spreading the value unit and becoming a sender).

Critical mass

The concept of critical mass for platforms can be defined as the number of participants on both sides that a platform needs to achieve in order to ignite network effects which will drive to further growth and subsequently a stable equilibrium.

In the case that this number of participants will not be met, the network effect ignited will be negative, and the equilibrium would be reached with zero participation, resulting in failure.⁵⁵

To better explain this concept, it is possible to use the example of a dating app:

Since the chances that any man and woman will like each other are low, in order to achieve success, the app needs to have a sufficient number of male and female users active on the platform so that the users will have a good probability of finding someone compatible.

⁵⁵ Evans, David S., Schmalensee, Richard, 2010 p. 6

When this happens, and enough awareness is raised, other people will start to use the app, until the equilibrium will be reached once at least as many people that stop to use the app (because they pair up or else) start to use it.

When the number of users of both genders is not enough, users will think that there are not enough possibility for a match, and quickly start to leave the platform.

To be sustainable, a platform needs to have a number of users on both sides just above the critical mass to be successful.

Solution strategy examples

Although the chicken or egg problem is s complex problem, it is not an unsolvable one. Many successful platforms found creative solutions to this conundrum, and even if every case is different, some patterns where identified, and some strategies developed. The following are some examples of those strategies: the seeding strategy, the standalone strategy, the marquee strategy, the envelopment strategy remora strategy, the strategic alliance strategy, the big bang strategy, the zig-zag strategy, and the micro-market strategy.

The seeding strategy consists of creating value for one set of potential users, and once these set will be attracted to the platform, the others will follow in order to interact with them. Often, it happens that the task of creating value for the platform is taken up by the platform itself.⁵⁶

For example, the HuffPost (formerly Huffington Post), the famous American news and opinion website, started by paying writers for high-quality content, so that it would attract readers. Some of them began to write as well, which led to more contents, readers contributors and so on.⁵⁷

The main advantage of this strategy is that by creating the value at the beginning the platform will define the type and quality of the value unit they want, setting a standard and reducing the need for curation.

The standalone strategy is used to attract a set of users to the platform by providing them with one or more products/services that can give value to the users by

⁵⁶ Boudreau, Kevin J.; 2011 pp. 1409 et seq

⁵⁷ McGinn, Daniel; " How I did it. Arianna Huffington" INC., 2010 retrieved the 09/07/2019 from <https://www.inc.com/magazine/20100201/how-i-did-it-arianna-huffington.html>

themselves, like useful tools or the like. When a sufficient number of users of one set is reached, the platform open to the secondary set of users, which is willing to interact with the first set hence triggering positive network effects.⁵⁸

This strategy was adopted by the booking service OpenTable, for example, which allows users to make restaurant reservations. They started by creating digital tools for automate the booking process and give free installation of the hardware and software for a small percentage on every reservation. The suit of tool in itself was enough to convince and retain restaurants in the network, and once an adequate amount of restaurants was reached, OpenTable open the network to everyone, providing a service to both the restaurants (which get more reservations) and clients (which had an easy and convenient way to book a table).⁵⁹

The advantage of this strategy is that it encourages and facilitates the producers to create more value, which will attract the consumers, while at the same time automating most of the curation and ensuring and high-quality service.

The Marquee strategy is performed by the platform by attracting one or more influential users, usually by some incentive, via special treatment or directly through cash payment. Most of the time this happens because these users are the key to a large number of other users that will almost surely follow once the influential users are on board⁶⁰.

One example of these influential users is Electronic Arts for the videogame industry. Since E.A. is the dominant sport games developer, every major company owning a gaming platform (e.g. Microsoft with the X Box, Sony with PlayStation and Nintendo with Wii) will offer a special deal to E.A. to produce or adapt games for that particular platform, since otherwise they will lose a big part of users to the other companies⁶¹.

In one variation of this strategy the platform directly buys the influential users in order to secure the value units provided by those users. This is the case of Sony,

⁵⁸ Choudary, Sangeet P.; Parker, Geoffrey G.; Van Alstyne, Marshall W.; 2015, pp 220 et seq

⁵⁹ Morell, Katie; "OpenTable Founder Chuck Templeton On Starting Up " 2011, retrieved the 09/07/2019 at : <https://www.americanexpress.com/en-us/business/trends-and-insights/articles/opentable-founder-chuck-templeton-on-starting-up/>

⁶⁰ Evans, David S.; 2009, p.19

⁶¹ Eisenman, Thomas; Parker, Geoffrey G.; Van Alstyne, Marshall W.; 2009, p.7

who bought the developer houses NaughtyDog⁶² and Guerrilla Games⁶³ in order to secure exclusive games from its platform.

The envelopment strategy consists in entering into another, bigger platform market and combines the functions of both platforms in a multiplatform bundle, getting the users of the bigger platform by making their network effects and pre-existing assets inefficient.⁶⁴

One example of this strategy was given by Microsoft when it integrated windows media player with no additional cost as a bundle in its operating systems, effectively taking a huge part of the users of the other media player leading the market at the time, RealPlayer.⁶⁵

Similar to the envelopment strategy but less aggressive, the remora strategy takes its name from the remora fish, which lives in a symbiotic relationship with bigger fishes like the swordfish and the shark. Thanks to its sucker-like fin the remora fish clean the other fishes from parasites, and in exchange it uses them to get carried around and have a secure source of food.

Just like the remora fish, a platform using this strategy will connect with another bigger platform with an already developed user base and offer them one or more services/products complementary to the ones offered by the host⁶⁶.

The strategic alliance strategy, as the name implies, consists instead in form an alliance with a key provider, usually A prominent player in the industry, that can offer some kind of advantage to the platform (E.g. Technology, visibility, financial aid), in order to increase the platform efficiency.⁶⁷

One example of this strategy is Tokopedia, a C2C business marketplace which ensures the safety of the transaction using a two-step verification process (the money get sent to the platform by the buyer, the seller sends the product, and once the product arrives the money are sent by the platform to the seller). In order to create more value for the users of the platform, Tokopedia allied itself with PT KAI,

⁶² Gravelle, Cody; "Naughty Dog Founder: Selling Studio to Sony Was 'Right Decision'" 2017, retrieved the 10/06/2019 at: <https://gamerant.com/naughty-dog-sell-studio-sony-128/>

⁶³ Anonymous author ,2011 retrieved the 10/06/2019 at: <https://web.archive.org/web/20110524110502/http://www.scei.co.jp/corporate/release/pdf/051208e.pdf>

⁶⁴ Eisenman,Thomas; Parker, Geoffrey G.; Van Alstyne, Marshall W.; 2010, pp.3 et seq

⁶⁵ Joseph,Regina; "Microsoft vs. RealNetworks " 1999, retrieved the 09/06/2019 at: <https://www.forbes.com/1999/03/05/feat.html#23075c136ce0>

⁶⁶ Salminen,Joni; 2014, pp. 134 et seq.

⁶⁷ Bruun, P.;Jensen, M.; Skovgaard J; 2002. pp. 286 et seq.

the Indonesian railway service, which help them achieve awareness on a national level.⁶⁸

The big bang strategy is a strategy that uses one or more traditional push strategies for achieving a big and instantaneous volume of awareness and attraction to the platform, gathering simultaneously both sets of users and thus having an almost fully developed network⁶⁹.

Although, as said before, the push strategies are not so effective anymore, if used with creativity they can still drive the growth of a platform. One of these examples was the launch of the dating app Tinder, which happened during a series of college fraternity parties in California⁷⁰.

For entering the parties, it was required to have the app installed or find a date on Tinder and go together, and by targeting and promoting the app in this way, Tinder rapidly reached the critical mass of users within colleges and later via word of mouth, enough users to be not only sustainable but successful.

The zig-zag strategy consists of incrementally increase the number of users on both sides one at the time. It is also possible to secure a small user base on both sides through unscalable efforts, and then increment the number of users one side at the time⁷¹

This was the case of YouTube, which after secured a small number of users on both sides using various techniques, started to focus alternatively in the attraction of the viewers and the producers until they reached a sufficient number of users.⁷²

The micro market strategy consists instead in enter a niche market where a small community of people is already interacting between themselves, then opening up to adjacent communities, and finally connect all of them in a bigger network.⁷³

⁶⁸ Santoso, Adhi S.; Wahyuni Sari; 2018 pp. 41 et seq.

⁶⁹ Downes, Larry; Nunes, Paul F.; Harvard Business Review Press, March 2013, pp. 44-56

⁷⁰ Anonymous author; " How Tinder Obtained More Than 50 Million Users Through Word-of-Mouth" 2017, retrieved the 10/06/09 at: <https://medium.com/the-mission/how-tinder-obtained-more-than-50-million-users-through-word-of-mouth-5d6105d24280>

⁷¹ Evans, David S.; 2009, pp 18 f. V

⁷² Evans, David S., Schmalensee, Richard, 2010 p. 63

⁷³ Parker, Geoffrey G.; Van Alstyne, Marshall W.; 2016, p. 3

This strategy was for example used by Facebook, which started by launching the platform in the small community of Harvard College and then proceeded to expand and develop on other campuses, which were at the end connected to each other.⁷⁴

In doing so Facebook leveraged one of the biggest advantages of this strategy, which is the possibility of obtaining similar positive network effects achieved by reaching the critical mass, by exploiting the geographical and social connections already in place between the users.

Observing all of these strategies, it is possible to note that most of them use one or a combination of the three following techniques: staging value creation, design the platform to attract one set of users, and simultaneous onboarding.⁷⁵

With staging value creation is intended the creation of value units by the platform, intended to attract users and show the benefits and potentials of the product/service offered. This is the case for example of the seeding strategy.

Design the platform for attracting one set of users means that the platform is created with integrated tools, products, services, or other kinds of benefits that will attract one set of users, which will, in turn, attract the other set that wants to gain value by interacting. One example of this is the standalone strategy.

Simultaneous on-boarding is a technique that entails the creation of a low volume of interactions by both sets of users, while then ignite a burst of activity that will attract enough users to reach the critical mass. The micro-market strategy is an example of this.

⁷⁴ Phillips, Sarah; " A brief history of Facebook"2007, retrieved the 10/06/2019 at: <https://www.theguardian.com/technology/2007/jul/25/media.newmedia>

⁷⁵ Parker, Geoffrey G.; Van Alstyne, Marshall W.; Choudary, Sangeet P.; 2016, p.90

Analysis of the interviews

Clang

Founded in 2015, Clang is a Berlin-based music discovery platform that lets users discover independent artists from all over the world. With an interface similar to Tinder, the user sets a music genre and start to listen to a snippet of a song and decide if it likes it or not. The song liked by the user will be forwarded to a playlist, while the one disliked will be eliminated from the rotation. Clang offers also a consulting service for music-based marketing and data-based information about social-economic behavior based on users' discovery preferences.

Clang help the discovery of new independent artists without the constraints of the streaming algorithms, which often lead to a “discovery bubble⁷⁵” or in other words, a repetition of the same contents (for example in YouTube and Spotify suggestions) selected by the algorithm.

Following, the categorization and analysis of the data acquired by the interview with Salim Kraaz, CEO of Clang.

Category	User attraction	
	Result	Empirical proof
Initial side of acquisition	Demand side	“what we did is we focused on users, which is basically the people that discover music and then we said, with the data, we are going to see later, how to attract customers.”
Initial target focus	Yes	<p>“For us it was quite natural that we needed to focus on people who are not, let us say, the mainstream consumers”</p> <p>“we definitely targeted people who had the wish to proactively search for music, discover music and these are not the typical mainstream users”</p>
Adopted strategy	<p>1) Strategic alliance</p> <p>2) Standalone strategy</p>	<p>1) “we attracted attention from Axel Springer, which is [...] a powerful and most known German publishers, publishing houses. [...] What we can do together is, we can learn from you, how publishing works [...] And of course we can, if you are willing to help us, you can give us a certain budget for media exposure. And this is what they did.”</p> <p>“we added a consulting service, [...] that is consulting companies and brands on music-based marketing or their music strategy. That means on how they could use music to</p>

		leverage their marketing activities. For example, sponsoring of events, brand artists corporations, in store music concepts and so on.”
Unscalable efforts	None	
Pivoting	1) Focus on both sides (simultaneous on-boarding)	1)“If I would do it again, then I would definitely go for the customer side way earlier” “Interviewer: So you would recommend an approach that includes going with both? Interviewee: Yes. Absolutely”
	2) Changing the core interaction	2) “For Clang, the first big, big, big shift was, that we said we do not want to go for the whole streaming experience but focus on the discovery side”
	3) Changing the business model	3) “The discovery side is hard or let's say impossible to monetize, [...] So we said that we need to do something to earn money and we added a consulting service”
Geographical influence		
Category	Result	Empirical proof
Geographical situation (Advantages)	1) Startup friendly environment	1)“the ecosystem in Berlin is very startup friendly[...] there are a lot of people that you can connect with”
	2) Institutional support	2) “There are also a lot of institutions and authorities that support startups.”
	3) Pricing	3)“In Berlin money is not that easy to get, but [...] you do not need that much. Compared to other regions in the world where you need

		[...] one to five million to at least get the first kickoff.”
	4) Being part of the European Union	“There is definitely [...] being part of the European Union, that is a big advantage because there are European Union-wide programs for startups”
Geographical situation (Disadvantages)	none	
Service/product localization	Multiple countries	“We started in six countries, [...] only starting in the German market is fine when you are in a certain testing phase, if you want to generate feedback. But if you want to scale and it's about scaling up very fast, then the German market might be too small.”

Table 3: categorization of the data gathered on Clang

The first thing that Clang did was focusing on the demand side, trying to attract firstly their initial target focus, a niche of people who are far from the mainstream music consumer, and instead “had the wish to proactively search for music⁷⁶”

This decision actually coincides with the first strategy adopted to overcome the chicken or egg problem. The strategic alliance with Axel Springer actually gave Clang the know-how and the financial tools necessary to reach their target through traditional marketing channels, and the decision of forming an alliance without forming a partnership, and thus avoid associating the name of Clang to the

⁷⁶ Appendix A, interview nr. 1, 10.05 min.

reputation of Axel Springer, also gave to Clang the possibility of positioning the brand in a way that attracted their prefixed users even using more traditional push strategies.

The second strategy adopted by Clang, although adopted for different reasons than user attraction, is the one called the standalone strategy. Offering a set of tools for music marketing and analysis is alone providing value for brand and companies to participate to the growth of the platform, which in turn let Clang provide artists and users with a platform free of cost, thus greatly reducing the friction at the entrance for them, and increasing the volume and the accuracy of the data-based information and analysis for the brands and companies.

Clang also underwent a series of important changes, first of all, the idea of turn from a music streaming to a music discovery service. Although this transformation was dictated more by legal and financial constraint⁷⁷, it greatly helped the image of “underdog” that Clang wanted to associate with⁷⁸. And secondly, adding the consulting service, which not only helped the monetization process but also increased the efficiency of the platform and its user retention and attraction power.

It is also important to mention that even though focusing on one side only worked out well for Clang in the end, Mr. Kraaz himself stated that focusing on both the demand and the supply side at the same time would have been better for the growth of the platform and could present a number of advantages for a start up in the early stages⁷⁹.

From the interview emerges also that the Berlin environment was also particularly favorable for growth, although apparently too limiting once out of the “testing phase”. Some of the advantages listed comprehend the networking possibilities and the ability to get funds from institutions both from Berlin and the European Union. Also, the cost of life and of fixed costs in general seem to be seen as advantageous rather than as a disadvantage.

⁷⁷ Appendix A, interview nr. 1, 13.48 min.

⁷⁸ Appendix A, interview nr. 1, 10.54 min.

⁷⁹ Appendix A, interview nr. 1, 08.55 min.

Spotshot

Spotshot is a social network founded in 2018. Based on the idea of “Challenges”, Spotshot offers its users the possibility of creating a call to action in the form of a short video in order to create engagement⁷⁹. One example of the “Challenges” that may be created on the platform was the so-called “ice bucket challenge”, where people made a video where they pour on themselves a bucket of cold water in order to raise awareness on the amyotrophic lateral sclerosis ⁸⁰.

Every user can create a challenge or participate in it by posting another video or by commenting and rating them. It is also possible to offer a reward for the challenges, and the most rated video at the end of the challenge will be the winner.

Spotshot uses the engagement and interest created by the various challenges over the last few years and helps the people interested in viewing and participate by aggregating all the content into a single platform instead of spreading the content on various social media.

Following, the categorization and analysis of the data acquired by the interview with Mersad Ajanovic, CEO of Spotshot.

⁸⁰ Minchin, Josh; “What is the Ice Bucket challenge? Here's everything you need to know...” 2014, retrieved the 20/07/2019 at: <https://www.mirror.co.uk/news/world-news/what-ice-bucket-challenge-heres-4052534>

User attraction		
Category	Result	Empirical proof
Initial side of acquisition	Demand side	"[the users] less kind of created the topics but more or less just participated. Probably was kind of easier for them to do that."
Initial target focus	No	"we had no demographic targets" " We just really invited everybody, like friends, family, if it was parents, sisters, brothers, nieces. All ages from I think, 15 to 35. No, even higher than that."
Adopted strategy	1) Seeding strategy	"Interviewer: So you started by creating the challenges, yourself? As the platform of course. Interviewee: Yes. To show people how to do it and give some inspiration to them and see if they could come up with something as well."
	2) Marquee strategy	"we have two big influencers in our accounting team. They are actual co-founders, very famous, big, and German influencers that are going to do a full promotion"
Unscalable efforts	No	"All we did is, do some invites and we did some small social media marketing or purchase some ads to announce we are in beta: [...] but nothing major. We have not done anything major yet."
Pivoting	1) Implement features	1)"Evolving is really adding the necessary

	features for it to go viral or to be a true platform. We need [...] improved search, need a better notification design, share-ability"
2) Changing the core interaction	2) "content is really like challenges, but can be way more, [...] could be evolved into something more wide, and other topics as well "
3) Early implementation	3)" we should have gone for the App Store directly instead of doing a test flight." "There was a really, really high churn, right, for getting new test users because you have to download another app [...] and all that stuff and it's just so much time. [...] we did not get many users to test the alpha. Now we are out in the Apps Store and could have done that from the beginning. It is really no difference.

geographical influence		
Category	Result	Empirical Proof
Geographical situation (Advantages)	1) Multicultural environment	"[...]it might be really good, because at least one third [...] of Berlin people are foreign based and they are born in a different country[...] So there's a lot of diversity which in the end means we have a lot of creativity, different input"
	2) Positive environment	"Berlin is a well-known startup city. So we have a lot of exchange with other startups, and a lot of events for startup, a lot of support from startups"

Geographical situation (Disadvantages)	1) Bureaucracy	<p>“it's really, really tough starting a startup in Germany because of all the laws and licenses you have to go through”</p> <p>“You have to do so much here, that it is kind of a block, for many, many people that just don't know how to start the company.[...] it kind of hinders a new innovation and people trying to start something new”</p>
	2) Funding	<p>“it's also a bit tricky regarding, getting funding because the German investors here are also really conservative and mainly tried to invest in tech companies,[...] but not like social media platforms.”</p> <p>“, getting fund is also hard, and there is less capital”</p>
Service/product localization	Global	<p>“we did not put any restriction on it. [...] even if you are in Germany or the USA, you could download the app.”</p> <p>“It's really open. There was no limit set.”</p>

Table 4: categorization of data gathered on Spotshot

The decision of Spotshot of concentrating their initial efforts into acquiring the demand side of users was actually dictated by two important points: the need of showcase the tools of the platform, and to reduce the entry barrier, already high for the technical difficulties encountered by users that wanted to join the platform.

For performing these two tasks Spotshot used the seeding strategy. Creating the first challenges by themselves allowed them to set a quality standard in regard of the next video posted, ensuring a good level of curation and also reducing the friction for users that, at least in the beginning, did not need to invent new challenges but just participate in the one already made by the platform while at the same time learning the format and the other features like rating and comment.

The second strategy used in this case is the Marquee strategy. Already having two top influencers⁸¹ as founders of the platform, gives Snapshot the possibility to surpass the technical constraints before marketing the platform to a wider public, while when that happens, it will greatly help the traction of the platform thanks to all the users who would like to interact with said influencers. The nature of the platform is also well suited for this strategy since the influencers already onboard can also "challenge" other influencers, which will positively benefit from the interaction by gaining more visibility from the fan-base of the "challenger".

The choice of not making any unscalable effort is also explained by the fact that having already secured two key users, extra efforts may be seen as inconvenient in a cost/ benefit perspective

The marquee strategy also explains the first Important change in the platform, which is the implementation of new features that will help the platform to reach more potential users and help kickstart the viral cycle and reach multiple external networks.

The second pivot of Spotshot would then widen the scope of the platform by changing the core interaction. This pivot is also directed to reduce the friction and the entry barriers for the users, while at the same time gives them more freedom from the initial format by changing the content of the posts and adding a variety of topics instead of focusing on "challenges". This attempt to differentiate the target of the platform may also work in synergy with the marquee strategy, allowing to retain also those users that came on the platform not for "challenges" but for support and interact with influencers and between each other.

All this effort for reducing the friction would have been greatly helped by entering the app stores directly, since using the test format for the app requires a lot of extra steps for the new users to download the platform application, which functions as a funnel in term of user acquisition.

⁸¹ Appendix A, interview nr. 2, 08.40 min.

Even though the platform was launched without any geographical restriction, being based in Berlin presented different advantages and disadvantages. The diversity of the background of the citizen is seen as an advantage since the multicultural atmosphere stimulates creativity, necessary for a platform like Spotshot, where users are required to constantly come up with new ideas. Also, Berlin itself is described as a platform-friendly environment with the possibility for support and networking given by the numerous events.

The main disadvantages described instead seem to be related to bureaucracy and the difficulties to complete all the documents necessary to open a company, which is seen as a hindrance for the creation of new startups. It is apparently also difficult to find funding through investors, which are searching for safer investments like hard tech, artificial intelligence, and mobility⁸²

⁸² Appendix A, interview nr. 2, 10.07 min.

Stryking

Stryking is a company founded in 2012 which has developed and currently operates the fantasy football platform “Football Stars”. This one is a platform where users are “football fans are playing against each other in order to prove who is the best football expert⁸³”. In order to do so, users create a virtual lineup of football players from different teams trying to predict which one of them will perform better in the next matches. The platform then analyzes all the relevant data for any football player (e.g. number of assists, number of goals, number of tackles) and then assign to them a score from one to ten. The user with the best average score for its lineup is the winner.

Football Stars also uses Meta-game elements like level progression, which helps motivate users to stay active on the platform, and the possibility of winning in-game currency which can be exchanged for official merchandise.

The peculiar design of the platform makes Football Stars not only unique in its genre but gives it also a high retention potential and a good starting position to ignite the viral cycle.

Following, the categorization and analysis of the data acquired by the interview with Dirk Weyel, CEO of Stryking.

⁸³ Appendix A, interview nr. 3, 00.19 min.

User attraction		
Category	Result	Empirical proof
Initial side of acquisition	Supply side	“We started actually with really knowing that [...] we need an official license from the Bundesliga. And so we secured the license before we actually launched the product.”
Initial target focus	Yes	<p>“it is pretty easy to define our target group. It is the passionate football fan, who in an age group between maybe 16 and then 45.”</p> <p>“we are targeting with the digital product people who are passionate football fans in the first place, and who like gaming in the second place.”</p>
Adopted strategy	<p>1) Marquee strategy</p> <p>2) Remora Strategy</p>	<p>“we need an official license from the Bundesliga. And so we secured the license before we actually launched the product.”</p> <p>“we did work to the smaller extent with influencers, YouTubers who are having their own, football channel.”</p> <p>“we entered into media partnerships with media partners, who already have access to the audience that that we target. So we will probably have Sport 1 since it is a German TV channel only broadcasting sports and a lot of football, and also a pretty strong website. We did have a</p>

		partnership with Kicker for one year.”
		“we are trying to integrate the product into media partners, in the channels of the media partners who have already access to the passionate football fans”
Unscalable efforts	No	Interviewer: “These kinds of discounts and bonuses are going to also continue while the platform evolves? You are not planning on shutting that down?” Interviewee: “No, we do that, as I said, in certain intervals. And then come up with new ideas, new types of discounts and bonuses, for also then our different target groups.”
Pivoting	1) Implement features	“we add more features, new features, new functionalities” “[we] also add new stuff to the platform because it is not like the game is never finished in a way because it is a platform approach, which means it is supposed to grow in terms of content functionalities”
Geographical influence		
Category	Result	Empirical proof
Geographical situation (Advantages)	1) Pricing	“it is obviously it is a very attractive city for talent, for still what is, sort of let us say relatively moderate price... Structures.”
	2) Multicultural environment	“it is a very attractive city for talent, [...]we have been able when we need, also was able to attract international talent to our team.

Geographical situation (Disadvantages)	Funding	“attracting capital from investors is probably... you have a better ecosystem, Berlin. So it makes it a bit easier than in other cities in Germany. Even so, it is still not easy.”
Service/product localization	local	“we started with a focus on the German speaking audience. [...] Austrian as well, bit of Switzerland. The main focus on Germany was the Bundesliga license. It did make sense in our home country”

Table 5: categorization of the data gathered on Stryking

The decision of striking of focus on the acquisition of the supply side first is directly connected with the first strategy adopted, the marquee strategy. In order to achieve an advantage in respect to the competition, they decided to firstly acquire what is commonly referred to as a key user, in this case, the Bundesliga.

Since the target of the platform are football fans, acquiring a license for one of the most important leagues, in combination with the meta-game element of the platform, raised the attractiveness of the game from the launch phase. This, in combination with the platform having been launched focusing on Germany and German-speaking audience, made the Bundesliga, which features most of the popular German teams, the key user par excellence.

The marquee strategy was also used in this case by working with influencers and Youtubers, since the digital format of the platform makes tech-savvy users a target as well, and the game presents an optimal way of interaction between fans and influencers.

The second strategy adopted by striking was the remora strategy. By entering in partnership with an already developed network that hosts the exact target of the platform, the latter gain the benefit of being exposed to a very large number of potential users, while for the earlier, the possibility of offering extra content which was specifically targeted to their audience help increasing the quality of the service provided, resulting in a beneficial deal for both of the parts involved.

The choice of giving bonuses and discounts based on the seasonality of football may also prove beneficial, given the meta-game element of the games and the fact that using virtual currency and other in-game rewards to do so, makes it a sustainable effort for the platform.

Putting aside the expectable technical difficulties likes bugs and such experienced by the platform at the start⁸⁴, the main pivot that the platform seems focused on is the implementation of new features. This also does not seem to be aimed toward a definite objective, although, given the very nature of the platform, it can be explained by the will of evolving the gameplay and continue to offer new experiences to users in order to keep their interest in the game.

⁸⁴ Appendix A, interview nr. 3, 11.10 min.

Apparently, being based in Berlin also brought to the company several advantages. The pricing of the city for both fixed costs and offices seems to be seen as convenient, as well as the multicultural character of the inhabitants of the city, which eased the task of recruit an international team of talented people.

On the other hand, find founds seems to be seen as a problem, that even tough mitigated in a certain measure by the ecosystem of the city in respect of other places in Germany, seems to be still a difficult task.

Data comparison

User attraction				
Category	Clang	Spotshot	Stryking	Company D
Initial side of acquisition	Demand side	Demand side	Supply side	Supply side
Initial target focus	Yes	No	Yes	Yes
Adopted strategy	Standalone strategy	Marquee strategy	Marquee strategy	Standalone strategy
	Strategic alliance strategy	Seeding strategy	Remora strategy	
Unscalable efforts	no	no	no	Yes
Pivoting	simultaneous on-boarding	Implement features	Implement features	Implement features
	Changing the core interaction	Changing the core interaction		Localization
	Changing the business model	Early implementation		
Geographical influence				
Category	Clang	Spotshot	Stryking	Beatport
Geographical situation (Advantages)	Startup friendly environment	Startup friendly environment	Pricing	Music community
	Pricing	Multicultural environment		Multicultural environment

	Institutional support		Multicultural environment	
	Being part of the European Union			
Geographical situation (Disadvantages)		Funding	Funding	Geographical connection
		Bureaucracy		Bureaucracy
				Pricing
Service/product localization	Several countries	Global	Local	Global

Table 7: Comparison of the data gathered

Of the three options considered by the literature regarding the initial side of user acquisition, supply side, demand side, and simultaneous onboarding, the only one which was not adopted was the latter. At the same time, of the other two options there is not one that prevails on the other, suggesting that although there is not a better side between supply and demand to attract first, it is more efficient to focus the efforts in attracting just one side instead of two. The different motivations for the choice of which side attract, as seen before in the analysis of the single platforms, also support this, since the choice of the initial side was dictated more by strategic choices than an inherent convenience of one side or the other.

It is anyway important to mention that this is just the majority of the cases and that simultaneous onboarding may prove efficient in specific situations, as suggested by one of the pivots that Clang would have implemented given the possibility.

Of the four platforms taken in consideration, three had a specific target of people that they focused on in the phase of acquisition, and also the choice of Spotshot of not adopting one can be explained by the fact that the efforts of the platform are directed in decrease all the friction and entry barrier to the minimum, so that focusing on a particular target market would have been detrimental to the strategy.

If not for a case where having a target is in direct opposition with the strategy of choice, however, it seems that focusing on a specific target is beneficial to platforms, allowing them to better focus their effort and giving them a better understanding of how to attract potential users.

In regard to the strategies adopted, three platforms used a combination of more than one strategy, while the fourth one, which adopted only one strategy, was the only one that resorts to unscalable effort to acquire users in the early stages.

This indicates that the adoption of a single strategy tends to not be sufficient to overcome the chicken or egg problem and that it needs either to be supported by some kind of extra effort or to be combined with one or more strategies.

Regarding the strategies taken into consideration, most of them were different, and were chosen based on different factors pertaining to the single platform. However, the marquee strategy and the standalone strategy appear more than once in the choices of the platforms. Both of these strategies focus mostly on attracting one

side of the market, so based on the previous findings it seems logical for this kind of strategies to be chosen more often. It is although important to notice that even when the strategy may fit into the same categorization, the approach at the strategy tend to be very different and tailored to the platform, indicating that rather than applying a strategy that is standard for all platforms, every platform needs to change and modify the strategy and the way of applying it in order to overcome the chicken or egg problem.

Concerning the pivoting, it appears that modifying and continuing to add features to the platform is of the utmost importance: every one of the interviewees mentioned one or more changes, with one changing the core interaction, two wanting to add new features to the platform, and one which wants to do both. Also, most of the interviewees made a statement regarding the fact that being able to change and evolve quickly is of paramount concern for every platform, a statement that, as seen, can be also found in the literature regarding the subject⁸⁵.

Another relevant pattern that can be identified seems to be the will of the majority of the platform of starting as globally as possible. This, however, does not come as a surprise: given the digital nature of the platforms, it seems only logical to try and reach the largest number of users as possible, even by localizing the service and adapting it to different market, since the efforts required to do so in the digital world are way less than the potential benefits. The only platform which seems to disrupt this trend, Stryking is doing so for a specific strategic reason. It makes sense for them, in fact, to focus on the German market, since the key player that they have acquired, the Bundesliga, is specifically related to the German area and so are their partners. Starting on a global scale would then minimize the competitive advantage achieved as well as the positive network effects produced by users' interaction.

Being based in Berlin seems also to be an influential factor for all the interviewees. The city ecosystem appears to be a favorable place for platforms, thanks to the numerous opportunities of networking and support that it offers. The multicultural environment that the city provides seems also to be important, even if the reason may vary from platform to platform. Berlin seems also to be a valuable geographical choice also for the economical aspect, where fixed costs and the cost of life are sustainable and favorable to a growing business. It is important to notice that one of the platforms lamented the prices of the cities, but the reason for it, the

⁸⁵ as seen in the paragraph "Push versus pull strategy "

escalation of properties' price due to the increase of foreign and newly created companies, only avail the point made previously. On the other hand, the bureaucracy is seen as a problem, especially if confronted with the American one, leaner and more company-friendly, accordingly with two of the interviewees. The other relevant problem which is possible to identify is related to the difficulties of obtaining funds, especially from investors.

These two problems, however, seem to be more related to Germany than to Berlin itself: the bureaucracy and the laws are decided on a national level, independently from Berlin. Regarding the founding, this difficulty seems to be associated with the nation more than to the city, which not only offers help independently through institutions but is actually perceived as a different entity in respect of the nation⁸⁶ and seems to even mitigate the problem⁸⁷.

Conclusions

After the categorization and interpretation of the data gathered, some interesting patterns have emerged. First and foremost, although often neglected in the literature regarding the subject, the geographical environment in which the platform is based seems also to be an important factor in overcoming the chicken or egg problem.

Although trying to launch the platform as globally as possible seems to be a more convenient approach for a digital platform, Berlin seemed to have nonetheless favorably influenced the growth of the platforms, and provided them with several advantages, proving to be a favorable ecosystem for platforms.

It is also clear that adopting a single strategy to overcome the chicken or egg problem does not seem to be enough, and every strategy needs to be integrated either with a second strategy or some extra effort in order to work. Moreover, contrary to the theoretical findings, it seems that push marketing strategies are still relevant enough to be used in a mixed approach, rather than being discarded in favor of pull strategies.

Also, it seems that instead of focusing on simultaneously attract both side of the userbase, it is more beneficial for platforms not only to focusing on acquiring one

⁸⁶ Appendix A, interview nr. 2, 10:07 min.

⁸⁷ Appendix A, interview nr. 3, 15:19 min.

side of the userbase, whether the demand or the supply, but also focus on a particular target market, so that the effort made for acquiring new users may be more focalized on attract just a particular market

The need for a fast response to changes and the versatility of platforms as seen in the literature is instead confirmed, showing that changing and evolving are an integrant part of the platform ecosystem and vital to overcoming the chicken or egg problem.

Future research and limitations

One of the most important boundaries of this thesis was the difficulty of find experts not only capable and knowledgeable enough to answer all the questions, but also available to be interviewed in the appointed time window. As the geographical dimension was also added, the number of available experts was again drastically diminished. However, I do believe that the samples provided are not only representatives of the category but are also offering a view of different phases in the development of a platform. With the newest one founded in December 2018 and the oldest one founded in 2004, I do believe that the patterns identified are all the more valid since they encompass and are common not only to platform that are of a different kind but also at different stages of development.

It is also important to state that the purpose of this thesis was not to provide a general model for overcome the chicken or egg problem, but rather apply the findings of previous researchers as well as business experts in an empirical perspective, in order to understand how platform in a similar context overcame the chicken or egg problem, if and how said context affect the growth of the platform, and if there is any pattern or trend to be recognized.

Future research may however take a quantitative approach, in order to test the findings on a larger scale and overcome the limitations of this thesis, or even focusing on one particular category of platform, instead of focusing on the geographical environment, and see if different patterns are uncovered or if the findings of this thesis are confirmed.

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Appendix A

Interview Nr. 1 : Clang

Interviewer: Sergio Grillo

Interviewee: Salim Kraaz, CEO of Clang

Recorded the 11/07/2019

Duration: 16 minutes ca.

Interviewer:00:01 Yes, I just started the recording. I would like to talk about Clang. Clang music. If it is okay for you. I know that you also have Spotshot, which is actually very interesting, but I am also seeing that it is kind of pretty new, right?

Interviewee:00:29 Yes, basically it was founded last year. So Clang, we definitely gained more experience with that one.

Interviewer:00:36 Let us start right now. Can you describe briefly what Clang does? What Clang is.

Interviewee:00:48 Of course. Basically Clang is a content media, content discovery engine that basically lets you discover music, with a certain UX user experience, that provides a fast and efficient and authentic, self-driven way of music discovery. The idea is that music discovery in our days happens mainly based on algorithms. Mainly in streaming and everything that is sorted and proven by an algorithm is risking to leading into a discovery bubble. That means that once you are in a certain genre or into a certain style, it is hard to break out because the algorithm is checking your preferences as set. Basically you will have no chance or less chance to discover music outside of the bubble. This is why...

Interviewer:01:46 Something like what is happening with the YouTube, for example?

Interviewee:01:49 Exactly, absolutely. And it is happening basically with every type of online content. Also written texts, also posts, so user generated content. Maybe you heard of Facebook, but the information bubble that people tend to see, information that they want to see. This is because the algorithm tracks what they like and tracks along. They look and read certain

content and provide this content to boost basically screen time. And with Clang we said that we want to make music discovery especially more self-driven and give people back this feeling of digging into a record store. And discover let's say hidden gems, by themselves without the support of an algorithm. And this is why we created the UX along, maybe comparable with the UX of Tinder. On Clang, you set a certain genre or style that you want to look for and then the system shows you song snippets. Then you say, in a Tinder-like metrics, I like it or dislike it and basically songs that you like will be forwarded to your favorite play list and songs that you do not like, basically will be dismissed and you will never hear them again. This was out any thoughts, sort of ranking or promotion or upgrading, paid upgrading from the artist's side. So everybody is discovered or has the same chance to be discovered.

Interviewer:03:21 Really interesting. Did you start by launching Clang locally or globally?

Interviewee:03:31 We started in six countries, when we launched into the App Store. The reason is that from our learning, only starting in the German market is fine when you are in a certain testing phase, if you want to generate feedback. But if you want to scale and it's about scaling up very fast, then the German market might be too small.

Interviewer:03:55 Okay, understand. Do you think about making Clang available also in other places?

Interviewee:04:08 Yeah, definitely. I think that well one part is the discovery engine. The other part is the monetization behind it, which is strongly data-based. We monetize with a database model that basically is tracking, discovery preferences and discovery behavior and then making link with social economic behavior and providing this information to brands and companies and advertisers. When we have built the service, and monetize this service in Germany and the other five countries that we are in, and definitely also for the discovery engine, the goal is to launch in more countries.

Interviewer:04:47 The company is based here in Berlin. How do you think being in Berlin influenced the growth of Clang, if in any way?

Interviewee:05:01 I think that the ecosystem in Berlin is very startup friendly, I would say. So there are a lot of people that you can connect with. That is the first thing. There are also a lot of institutions and authorities that support startups. That is pretty important. In Berlin money is not that easy to get, but

it is getting easier and also, you do not need that much. Compared to other regions in the world where you need basically, even in a very early seed stage, you will need, let's say one to five million to at least get the first kickoff. In Berlin it is pretty chilled compared to other regions of the world.

Interviewer:05:42 Do you know of any other particular maybe advantages or disadvantages that you found out being in Berlin?

Interviewee:05:51 Besides the pricing. With the pricing, I mean, office space, employees, salaries, funding pricing. There is definitely the European Union or being part of the European Union, that is a big advantage because, there are European Union-wide programs for startups. I think that they really understand or start to understand that they need to promote the startup scene in order to stay competitive. Regarding East Asia and the US, so the European Union is definitely an advantage.

Interviewer:06:35 Let us talk a little bit more about the platform. For example, what strategic problems have you encountered when in the early stage of the development of Clang?

Interviewee:06:50 The first bigger challenge came when we thought of the technical implementation. That was always the question, do we outsource the technical implementation or do we hire people to do it? That is not only a monetary question, but also a very, very strategic question, because outsourcing seems to be cheaper in the first instance, but then you have to take account of things, like project management. Who's doing the coordination between the tech team and the main team? Things like code quality; things like, for example, like loss. If you outsource to a certain country, is the law frame suitable for what you want to do? Are you protected as a start up, as an interacter, in a certain economic interaction? Basically that was the first and biggest challenge when it came to implementation.

Interviewer:07:52 In hindsight, is there something that could have been improved in the launch phase of the platform?

Interviewee:08:01 Yes, definitely. I would say that speed is something that's crucial and when it is me, then I would love to speed up. That is true for the early phase, but that is also true for everything that it comes now. So speed is always, always important.

Interviewer:08:19 Let us concentrate a little bit about, for example, your customer. In the early stages, what did you attract before the supply side or the demand side?

Interviewee:08:33 I think that we could have been smarter at this point. We have been learning a lot [inaudible 00:08:43]

Interviewer: 08:45 I am sorry. Can you repeat what you said last time, because the line went down a second?

Interviewee:08:55 Oh yeah, sure. Can you hear me know? If I would do it again, then I would definitely go for the customer side way earlier because what we did is we focused on users, which is basically the people that discover music and then we said, with the data, we are going to see later, how to attract customers. I think that you should go for both very early.

Interviewer:09:24 Okay. So you would recommend an approach that includes going with both?

Interviewee:09:29 Yes. Absolutely. Even if you say that you do not want to raise money, which is quite popular in our days that start up say that we want to totally focus on customers and not raise money, which is fair. Even if you want to raise money and you are a venture case, customers are always a good argument. Therefore, the negotiations with the VC, for example.

Interviewer:09:53 Within the users, do you initially focus on a particular target group or it was just more a general thing?

Interviewee:10:05 For us it was quite naturally that we, that we needed to focus on people who are not, let us say, the mainstream consumers. When it comes to music, which is a consuming good, there are obviously mainstream consumers that are people that let us say, put on the radio or put on the streaming service and just listen what is shown to them. For us, we definitely targeted people who had the wish to proactively search for music, discover music and these are not the typical mainstream users. So, that would be our specific target group.

Interviewer:10:47 What strategy did you apply to acquire these customers or your first customers, if you want?

Interviewee:10:54 We positioned ourselves very, visibly as an underdog. We said, hey listen guys, there is Apple music. There is Spotify. Oh, by the way, we are not a streamer. We are a music discovery service, which is not a streaming service, and by the way, we are an underdog. So with us, you will not discover, let's say Brittany Spears or Drake. You do not need us to, to listen or discover to this kind of artist, but you will discover very, very precious hidden gems that let you, serve ahead of the wave and be the first to discover the stars of tomorrow or the hidden gems of today.

Interviewer:11:40 Okay. This is really interesting. At the beginning, did you make any extra effort to attract users in the first month, for example, some special, discount? Did you give them something? Did you give them some incentives or something like that?

Interviewee:12:05 You mean a special market entry strategy?

Interviewer:12:08 Yes. Thank you very much. That is exactly what I was meaning.

Interviewee:12:12 Basically what we did is very early, we attracted attention from Axel Springer, which is one of the most, it is a powerful and most known German publishers, publishing houses. At the same time, it is not popular for being very sexy, very underdog and very outlaw-ish. It is rather an established working environment, I would say. What we said is, okay, you like what we do, we do content discovery. How can you help us for the market entry? And they said, yes, we can go for an announcement but we work together and blah, blah, blah. We said, no, we do not want this because our image is different than yours. What we can do together is, we can learn from you, how publishing works because at the end we are short of a publisher. And of course we can, if you are willing to help us, you can give us a certain budget for media exposure. And this is what they did. They gave us a little less than a million euros in budget for media exposure and that has helped a lot.

Interviewer:13:24 What major changes has Clang experienced from the early stages of development?

Interviewee:13:35 So first pivoting, so changing the business model is definitely something that every entrepreneur should be open for, I would say.

Interviewer:13:46 I do agree with that.

Interviewee:13:48 Yes, because if you close your mind and close your close your heart towards changes, that will definitely occur during the time. Your startup is highly likely to die or let us say at least not to perform in the best way. So for Clang, the first big, big, big shift was, that we said we do not want to go for the whole streaming experience but focus on the discovery side. We have been talking to licenses very early. BMG was one of the guys that we talked to very, very early is one of the biggest licensors in Europe. And they said to license a music track is heavily expensive and it is crazy negotiations to get a good music catalog for free, of full listening tracks.

Interviewee:14:39 So the first pivot was that we said, okay, we are not going for full tracks. The second one was that we said that the discovery side is hard or let's say impossible to monetize. So how do we earn money? Of course, Deep Echo, which is our data analytics tool, is earning money at some point, but it's very, very, very, sophisticated in the implementation. So that was something that was not for that very moment, but for later. So we said that we need to do something to earn money and we added a consulting service, which is live or still live today, that is consulting companies and brands on music-based marketing or their music strategy. That means on how they could use music to leverage their marketing activities. For example, sponsoring of events, brand artists corporations, in store music concepts and so on. So this was, let us say, a big pivot when it comes to the monetization side. It took some time to implement this, and to build a network of consultants and people that are able to provide the service on a high level. I think it was worth it.

Interviewer:15:58 I think I finished my questions. I do not know if there is something that you want to add?

Interviewee:16:05 Not at the moment. Just if you have anything that you need help with, just let me know. I am always happy to help.

Interviewer:16:13 Well, thank you very much.

Interview Nr. 2 : Spotshot

Interviewer: Sergio Grillo

Interviewee: Mersad Ajanovic, CEO of Spotshot

Recorded the 19/07/2019

Duration: 24 minutes ca.

Interviewer: 00:00 Are you aware that I am going to record this interview? Is it okay for you?

Interviewee:00:04 That is okay.

Interviewee:00:12 The best way to actually rewind everything and write notes and all that stuff? It's hard to just talk to somebody and write it down. I know that I do it that way as well.

- Interviewer:00:24 Okay. So do you mind if we just jump right in? Why don't you start by telling me a little bit about what is Spotshot? Can you just describe Spotshot for me?
- Interviewee:00:44 Well, Spotshot is a social network. We tried to build something that is kind of similar in the build, and the usability as Instagram, very simple, but we have a twist in there, that every post is not just nice picture or nice video, but more of a question and invite or a task. We call it the network for challenges because your post, it is kind of a challenge.
- Interviewee:01:17 What we mean by challenge is: You have heard of the ice bucket challenge. Someone wanted to create awareness for the ALS Association, so they created this challenge to put ice water over your head. The thing that happened then and what we realized is amazing, is that there was so much engagement from all over the world, from all over all different platforms that we have right now, like Instagram, Twitter, YouTube, whatever platform. We had people actually recording videos during high school throw a bucket of water over their head. Even though their account is totally doing different stuff or even though their activity is pretty low. And this level of engagement, we thought you could use on the new platform, which concentrates on that. Therefore, we had one post as a challenge. The content that is used to create, do the engagement, are aggregated into this post.
- Interviewee:02:32 So you have something like Instagram stories, but in this post. Let us say we have this ice bucket challenge, for example, someone creates the initial post, which is the challenge and everybody that participates upwards into this challenge. So you have the stories of all these people in one place. No? What happened back then when the ice bucket challenge happened is that everyone was uploading on their channel, on different platforms, Instagram, and all that stuff. What happened is if you are a travel influencer, maybe people did not really react to that or did not really like it, or they are not interested. So people had to look all over the place, your hashtags, and all that stuff to kind of check on all these nice participation in that challenge. What we did is aggregate. So everything is in one place and you can concentrate it on one topic in which in the end means, that every challenge is a topic.
- Interviewee:03:29 So you could talk about various stuff, and kind of collect like in, an open forum where you have a thread and people who kind of add comments to that. And can you see all the comments are part of this thread. So in the end Spotshot is kind of mix of Reddit, Twitter, and Instagram stories.

Interviewer:03:52 Focused on challenges

Interviewee:03:57 First kind of topic is challenges, but I think that we can expand beyond that, because as I said, challenges are just a question. I could actually talk about the various topics and invite people to participate and use this and a new mechanism for creating engagement.

Interviewer:04:18 Did you start by launching a Spotshot locally or globally?

Interviewee:04:26 Actually we tried to do it mobily, we did not restrict it actually; we did not put any restriction on it. We just, even if you are in Germany or the USA, you could download the app. Most of our audiences obviously here in Berlin, Germany, because all the people that were invited personally to the app were here. So the app is locally but it's not closed off. It's really open. There was no limit set.

Interviewer:05:04 You were just mentioning inviting people. Actually in the early stages, who did you attract before, the supply side or the demand side? So people that wanted to, for example, see this kind of stuff or participate in the challenge or people that wanted to actually propose this kind of stuff?

Interviewee:05:26 It is really tough because I think you mentioned the chicken or egg problem. What you try to do is, especially (inc. audio lag) like a new tool that nobody knows how to use. So at the beginning we tried to create the challenges. We showed how people could create challenges, what kind of challenges they can create, and all that stuff. And what the users sent in that we got on the platform was just participate. They less kind of created the topics but more or less just participated. Probably was kind of easier for them to do that.

Interviewer:06:06 So you started by creating the challenges, yourself? As the platform of course.

Interviewee:06:14 Yes. To show people how to do it and give some inspiration to them and see if they could come up with something as well.

Interviewer:06:25 Did you apply any other strategy to acquire your first customers aside from what you just told me?

Interviewee:06:33 Well, it depends as to what do you mean? What customers do you mean? users as customers or do you actually mean users? Customers that actually purchase, promote the challenges, because that is our product we have.

Interviewer:06:51 No, let us talk about users first.

- Interviewee:06:54 Okay. Let us talk about users first. The first thing we tried to do is actually just get users to test our app. So we started with an alpha back in December last year and we invited like around 120 users from friends and family and afterwards, we kept going with that, to just invite people to test. We are still in the beta phase, so all we did is, do some invites and we did some small social media marketing or purchase some ads to announce we are in beta, come on, download our app, try out our app, but nothing major. We have not done anything major yet. This is mainly due to the fact that we still do not have certain systems in place, like all the retention systems that app usually needs are not in place, like the full notification design is not ready yet.
- Interviewee:07:55 Like every activity on platforms should have some sort of indication to kind of bring back the user, create retention. Also there is no way of sharing the content or easily share this content, which kind of makes it hard for the content itself as well as the app to go viral. Well, we really concentrate on the testers and as soon as these systems are in place, we are just going to do a bit more about that. Has Salim told you about anything regarding Spotshot?
- Interviewer:08:32 No, I just informed myself on your website. I do not know where are you going? What is your strategy for the future?
- Interviewee:08:40 We do not have that kind of fear of not getting enough users, because, this definitely had been mentioned, we have two big influencers in our accounting team. They are actual co-founders, very famous, big, and German influencers that are going to do a full promotion as soon as the app, as we would say, ready to go viral. Like all the systems are in place and they are at least able, or the content at least is able to go viral, if there's any better content. And so they are going to go promoting not just themselves, their million of followers, but also their whole network. They know other influencers in Germany and globally. So when they do this promotion, we are going to get instantly, hundreds or millions of users, the first few days. And if the systems are in place, we are going to retain these users and content that is created could go viral, and hopefully it does, so this regard we are not trying too hard to get users
- Interviewer:09:58 Do you think there are any particular advantages or disadvantages in being in Berlin? Being Berlin based?
- Interviewee:10:07 I would say compared to other German cities, it might be really good because at least one third of German, of Berlin people are foreign based and they are born in a different country or the parents are foreigners. So there's a lot of

diversity which in the end means we have a lot of creativity, different input, and all that stuff. So in addition to that, Berlin is a well-known startup city. So we have a lot of exchange with other startups, and a lot of events for startup, a lot of support from startups. But in the end, it is still Berlin, it is not Germany. I do not know if you know this, but Germany is a bit conservative regarding new stuff . So compared to the US or other countries, they don't try out new stuff as much as, let's say for example, the people in the Silicon Valley. So they know when there are new stuff we have to try this. Germans are conservative, they kind of wait for things to get to a certain point where they know, it is of a high quality and then they try using it. So that is our issue, main issue regarding getting new users, but I do not worry that much about it. And on the other hand it's also a bit tricky regarding, getting funding because the German investors here are also really conservative and mainly tried to invest in tech companies, like hard tech, and mobility and all that stuff, they do some press as service stuff, but not like social media platforms. They want all the AI stuff and all that high tech company, getting fund is also hard, and there is less capital, less risk involved here compared to, again, silicon valley where you just get the money.

Interviewer:12:23 Can you think of anything else that maybe can influence or have influenced the role of the platform regarding you being here in Berlin?

Interviewee:12:35 I think I've already mentioned a lot about this. Being in Berlin, as well, being in Germany and it's really, really tough starting a startup in Germany because of all the laws and licenses you have to go through and all the tech stuff. I think in the US you have like five years where you don't have to do anything before you actually have to do some taxes stuff and all that. The company is easy to set up in the US, no reporting to do and it is super easy and also super easy to possible obtain funding, is also super easy, and way shorter than in German. You have to do so much here, that it is kind of a block, for many, many people that just don't know how to start the company. What do you start? What do they have to take care of? The Finanzamt many people... you know Finanzamt? Many people here fear the Finanzamt and all that stuff. So it kind of hinders a new innovation and people trying to start something new. And I think many, many other countries are way ahead. And that is one stuff that influenced us as well or did not influence us as well, and inhibits, many other people as well.

- Interviewer:13:56 Regarding doing something new, trying to make something new, have you encountered, so far, any strategic problems? Instead of, bureaucratic problems, let's say.
- Interviewee:14:15 Yes. When I joined the team back then, the main problem I saw was focus because when Spotshot was started, we had a big vision of how the app should look, how it should work, what kind of features it should have, the whole complete package. On the other hand we had one developer, one designer/developer. So what we had to decide at the beginning what is our MVP? What is our minimal viable product? How does it look? What kind of features do we have in there that kind of make it work? You can create a social network and start with a chat feature. That does not make sense. Ok, if you are creating a chat app that makes sense but we had to really focus and cut off features, not just deleting them or not ever implementing them, but saying, okay, we want this feature but not yet, not now. And this was kind of tough to get through to the team because they thought they would boost this feature. The main strategic decision was to kind of use the manpower we have as effectively as possible, by focusing on what you want to do and how we going to do it.
- Interviewer:15:40 I think you also already mentioned it, you think about, pivoting at some point. So changing the platform from what it is, at least now at the early stages.
- Interviewee:15:59 Same thing. I would not say changing, but more rather evolving the basic stuff, the MVP stuff is already in there. Evolving is really adding the necessary features for it to go viral or to be a true platform. We need (inc. audio lag) improved search, need a better notification design share-ability or the content to be able to be shared. And the focus right now is from let's say content is really like challenges but can be way more, so not going to be changing completely in a different direction, but it's going to be an evolved or could be evolved into something more wide and other topics as well.
- Interviewer:16:53 Regarding the past few months, is there something that you could have, now that you are here, is there something that could have been improved or something that made you say, I would have done this better, probably. I would have done this differently, if I had a second chance of doing this?
- Interviewee:17:12 Specifically for us it is an app start up, we should have gone for the App Store directly instead of doing a test flight. Test flight as a test system for Apple apps. So you go in there and you can test your app without releasing in the App

Store. The main issue here is to get users on board. There was a really, really high churn, right, for getting new test users because you have to download another app. You had to go through an invite with invitation and then you have to install the actual app and this was a lot. And then you have the registration and all that stuff and it's just so much time. And we had so (inc. audio lag) that we did not get many users to test the alpha. Now we are out in the Apps Store and could have done that from the beginning. It is really no difference. You still (inc. audio lag) to get it done earlier and learn much more and made onboarding for new users way easier. And all the learnings we have missed, I don't know what we have missed. That is one of the big things we could have done better in the past and yes, very hard.

Interviewer:18:29 You said before, that you invited some people to test the platform? Did you focus on a particular target when you did that or did you just choose randomly? Did you have a target group in mind when choosing these people?

Interviewee:18:52 It was not actually randomly, but we had no demographic targets that we had. We just really invited everybody, like friends, family, if it was parents, sisters, brothers, nieces. All ages from I think, 15 to 35. No, even higher than that. We have people that are in their sixties on our platform really high range because at the beginning you don't really know what your audience is. As I see it, you kind of do not define your audience and then create a product, for me this is reverse engineering. I defined finding a target group when you can do this, but I thought of creating something special that was nice too. That theoretically, everybody can use and then observe who is using it. In the most part is going to be young people anyway, because young people, those that are curious and find new things always first because they have this fear of missing out. I do not want to hear from anybody else that there is something new. They usually want to be the one that discovered it first. And parents are less conservative, they do not care about this childish stuff, being first discovering something. They chill and wait until something is known or popular. The audience mostly is young people anyway, so, but we did not actually target, we did try to figure out what the audience is. We try to find out what certain demographics, think of our app. We call it test as in where you invite people to pizza and give them the app and ask them what do you think? And we had some certain different groups like girls from the age 16 to 17 sit with us and test on the app. They liked it, they really do. We had some older people in the

20s. We have some of our from our group, from our phone numbers that are on the app.

Interviewee:21:15 We know what they think. They like it, their friends like it as well. So we have this kind of testing when we have not said we are just doing this for people the age of 15 to 21 and are not targeting older people because as I said, it's a tool that can be used by anybody. So it's just a matter of time, who discovers, when, and most likely it's going to be young people

Interviewer:21:40 It is an app that can be used by everybody and everywhere, potentially?

Interviewee:21:46 Yes. It's not locked to a location. It is a social network just like Instagram, Facebook, and Quadric. You could, the mechanic you could use anywhere in the world and so it is really open. The app itself, is just at the moment translated in German and English. We want to add more languages in the future, like Spanish French and what else, some others maybe, but when it launch it should be there, of course.

Interviewer:22:23 Actually I have finished my questions. So I would like to know if there's anything that you would like to add in this regard about Spotshot or?

Interviewee:22:37 I am not sure. Do you have any further questions that come to mind like, it is way easier answering questions then coming up with something. what I could come up with is the thing that you mentioned, about targeting certain audiences and trying to find out which demographics are a fit for your app and I am not sure this is the right way? As far as I know, most of the apps are, in this regard social media network, are kind of created fluidly. What I mean with this is they tried to do something, they created... Do you know the story of Instagram?

Interviewer:23:30 The stories of Instagram? Yes.

Interviewee:23:33 They kind of tried to create an app for Bourbon, was it Bourbon? Then when they noticed the users tried to do something else, that they did not say, we have targeting certain audience and we all want to keep it this way, but they actually kind of use this feedback and kind of developed it to what their audience wanted. Then the audits, they observed, they observed that people are using their app in a certain way. So this is our audience, and then they adapted, instead of building it completely for a certain audience and then say, monkey, you are going to stay this way. I hope to do the same thing for Spotshot where you

just say, you are trying to build a tool that worked a certain way, that we see that people are using a certain way, then we need to adapt to this way. I think this is important. I think this is what made Instagram successful, that they said, our users are using this too differently and we should make it the best tool for them, not for us.

Interviewer:24:44 Thanks for this consideration. Well, okay.

Interview Nr. 3 : Stryking

Interviewer: Sergio Grillo

Interviewee: Dirk Weyel, CEO of Stryking

Recorded the 15/08/2019

Duration: 17 minutes ca.

Interviewer:00:01 Okay. First and foremost, are you aware that I am recording this interview? Is that okay with you?

Interviewee:00:08 Yes, I saw so.

Interviewer:00:10 Perfect. Can you start by talking to me about Stryking. Can you describe it a little bit?

Interviewee:00:19 Yes. With Stryking. We develop and operate a fantasy sports platform called Football Stars. So that means it is a prediction game where football fans are playing against each other in order to prove who is the best football expert. That goes to core mechanic of the game, play works in a way that users try to predict or build their virtual lineups of real football players and try to predict which players are going to perform well at the next match date. It means so the older football fans are sort of virtual coaches, and they can pick their own line up of players, of all the different Bundesliga clubs, for example. So we also have the other European leagues in there, the top leagues, but the main, but we have an official license of the German Bundesliga. So, and also they are the major part of the community. So far, it is coming from Germany and then it works in a way that users build a virtual lineup of players. Let us say there is a challenge called, *'Pick the best 11 players, from the upcoming match day'*. Everybody picks his line up and that has to save it one hour before the real matches has start. And after the real matches have happened, we do get very

detailed performance data and stats via an API from one of the big sports data providers. And so that we can get like successful passes, shots on goal, successful tackles and all these statistics, forward for every individual football player. And then an algorithm calculates an overall score for every player, like from one - this was a very crappy game of this player, to 10 - he did really well. And then obviously, so if my lineup, my virtual team has scored more points in total than yours, for example, then I have won the challenge. That is basically the core mechanic and around that we have various gamification elements, different functionalities, et cetera.

Interviewer:02:23 Can you give me an example of these gamification elements that you have there?

Interviewee:02:31 Yes, we have, for example, the sort of a meta-game in there, so with the level progression system, that means users, hopefully the active users are getting promoted to higher levels. When they play more challenges, or when they are more active, they can get virtual, they can unlock achievements. For example, you have won five challenges in a row, you get an achievement and you get some in-game coins for free. And you have your own Avatar, like in the profile section, which you can individualize and things like that. You can even win prizes. You can sort of gain a second in game currency, which is kind of a loyalty, a currency called stars. And if you collect those stars by playing actively and successfully, you can redeem them in an in-game world shop up into real world prices and stuff like that.

Interviewer:03:23 Okay. While developing the platform, did you encounter any strategic problem?

Interviewee:03:37 Yes. let us put it like this. So one, it is not as strategic problem... funding, early stage funding, for a pretty new type of business model: it is a game, but it is sort of special. This was not easy. Also obviously, is the whole segments or the product market fit it is a bit more difficult over here than say, the original, this fantasy sports segment is in the U.S. It is very popular over there for American sports. For football, it is existing, but all the detailed statistics are just all pretty new. So we had to find out what is the right, how to sort of find our own way to design and to release, strategically position the product in the market.

Interviewer:04:41 Okay. And regarding this positioning in the early stages of the platform, who do you try to attract before, the supply side or the demand side?

Interviewee:04:56 How would you? To understand the question right. What is for you the supply side or the demand side?

Interviewer:04:57 The supply side, I guess it would be your contracts with the, as you mentioned the Bundesliga? If I recall correctly.

Interviewer:05:14 So did you focus before on having these kinds of partnership with Bundesliga and all these kind of players, or did you focus on attracting users, at the beginning?

Interviewee:05:29 We started actually with really knowing that an authentic game play, you had to be able to stand out in the marketplace, that we need an official license from the Bundesliga. And so we secured the license before we actually launched the product. Then we launched the product and obviously worked on user acquisition.

Interviewer:06:00 Did you focus on our particular target group while you did these user acquisition?

Interviewee:06:09 Yes. obviously, it is pretty easy to define our target group. It is the passionate football fan, who in a age group between maybe 16 and then 45. So the more the younger group of the football fans, can you find and you find passionate football fans in all age groups. Obviously, we are targeting with the digital product people who are passionate football fans in the first place, and who like gaming in the second place.

Interviewer:06:46 What strategy did you apply to acquire these customers or at least your first customers?

Interviewee:06:55 Yes, as I mentioned, also funding, I would say, was a problem. So that means sort of, we did not have, we have investors and everything, but it was like more, it started with a bootstrapped it at the beginning. Then we got in some investors and, but we did not have huge financing rounds, so we did not have really, a marketing budget to spend on paid user acquisition. That is why we worked with partnerships in the first place. So we entered into media partnerships with media partners, who already have access to the audience that that we target. So we will probably have Sport 1 since it is a German TV channel only broadcasting sports and a lot of football, and also a pretty strong website. We did have a partnership with Kicker for one year. And so that means that we are trying to integrate the product into media partners, in the channels of the media partners who have already access to the passionate football fans. And we did work to the smaller extent with influencers, YouTubers who are having their own, football channel.

Interviewer:08:22 Did you also make, for example, any extra effort that attract users? So for example, I do not know, discounts or any kind of gifts for first registration or something like that?

Interviewee:08:37 Yes, we work with these kinds of let us say additional incentives on a regular basis. As we are connected, very much, to the real football season. So we have a certain seasonality in there that means, our main time to really attract you this time is right now. So let us say, July, August, when the real football season starts again. And so, we pick those moments to incentivize users to with special bonuses, or discounts, or we have also a premium account, that people can buy for the whole season to get some additional functionalities. And then we sort of, yes, and it sounds uncertain, but in regular circles we have different campaigns too, with discounts and bonuses. Also at the beginning of the second half of the season or they say a special, Christmas package and stuff like that.

Interviewer:09:43 These kinds of discounts and bonuses are going to also continue while the platform evolves? You are not planning on shutting that down?

Interviewee:09:58 No, we do that, as I said, in certain intervals. And then come up with new ideas, new types of discounts and bonuses, for also then our different target groups.

Interviewer:10:11 Can you also tell me what major changes has the platform experienced for the early stages of the development, if any?

Interviewee:10:22 Yes. We started with web only then and after half a year we added native apps on iOS and Android to it. We added after one year, we added the second full second game modes to it and then, and then it is an ongoing development. So where we add more features, new features, new functionalities, and also they're now starting to internationalize with more languages and more partners, more content.

Interviewer:10:57 Do you think that there is something that could have been improved also in the early stages, the launch phase of the platform? Something that could have been made different or better?

Interviewee:11:10 Yes, for sure. Yes, for example, the first season that we had sort of like a beta season, was... we already had a media partner and they also did, we were not fully ready technically, so that was a bit of a pity. So that means they were doing it in two weeks. So for the start of the season, they were doing a two weeks TV campaign with spots as well and brought in a lot of users wanting to register and we had really some technical issues. So that we did not convert

as many users as we could have. If it would be completely, technically, bug free. So we had to rush it a bit because of the season. The seasonality. So that is obviously, yes, this could have been improved.

Interviewee:12:05 And from there on, I think it is software development and launching, there is always quite a few things that you could improve. And that you need to learn and tweak, and do better, when you do launch a new feature again, or when you do have bigger milestones that you want to achieve. Then also add new stuff to the platform because it is not like the game is never finished in a way because it is a platform approach, which means it is supposed to grow in terms of content functionalities, obviously, and, user base. So it is ongoing development and operations process where you launch new elements, new features, et cetera, on a regular basis.

Interviewer:12:58 With everything, instead of, let us say localization or geographically speaking, did you start by launching the platform locally? So for example, Berlin, or Germany, or globally...?

Interviewee:13:11 Yes, we started with a focus on the German speaking audience. So mainly (inc, stutter) Austrian as well, bit of Switzerland. The main focus on Germany was the Bundesliga license. It did make sense in our home country but we did also still have an English language version. So they are around 5% of the users are playing the English version so far, when we are now starting to focus more international users as well, but we did start in in Germany.

Interviewer:13:46 Even though potentially if someone wanted to access the platform from another country, would it be possible?

Interviewee:13:58 Yes, exactly. You can access the web version from everywhere in the world. And the apps have not been released apps in Asia, partly because we were not able to actively market them. But in Europe you can also, and all European Cups, you can download the app and play if you are based somewhere else.

Interviewer:14:22 Okay. Do you think that the being a Berlin based, brought you, any particular advantages or disadvantages?

Interviewee:14:37 I think, yes, more advantages than disadvantages. So obviously it is a very attractive city for talent, for still what is, sort of let us say relatively moderate price. Structures. And so we did also, have been able when we need, also was able to attract international talent to our team. I think access

to capital is almost really early stage financing is (inc, audio lag)

Interviewer:15:13 The line, just a dropped a bit, can you repeat your last sentence?

Interviewee:15:19 Yes. Also that attracting capital from investors is probably... you have a better ecosystem, Berlin. So it makes it a bit easier than in other cities in Germany. Even so, it is still not easy. Especially for sort of products in our space, but in general, I think that Berlin, as a location has definitely more advantages than disadvantages.

Interviewer:15:53 And do you think that being in Berlin influenced the growth of the platform in any way?

Interviewee:16:04 Not really. I would say obviously it is a it is more like that, as I said, so the infrastructure and ecosystem in Berlin to have, let us say, maybe easier (inc, audio lag) but the growth of whatever, this is not being influenced by being in Berlin. I think it is also could be done from somewhere else. It is a pure digital product. And so this is not necessarily being influenced by being in Berlin.

Interviewer:16:41 You mentioned your use of influencer and YouTube are for promoting the platform. Are these influencers in YouTube only Germans or are you trying also to reach a more international audience with them?

Interviewee:17:05 Yes, for the future, we will, so far we are, people who are our YouTube was mainly attracting or mainly targeting the German audience and but for the future we will also work with international influencers.

Interviewer:17:20 I think I am finished with my questions. Do you have anything to add? Anything that you would like to say?

Interviewee:17:31 No, I think we have covered quite a few questions. So I think that is it from my side.

Interviewer:17:39 Well then, thank you very much.