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Growth Strategies for Two-Sided Platforms

A Case Study of Graphiq

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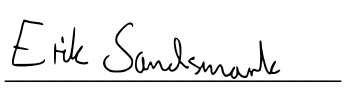
Preface

This master thesis is written during the spring semester 2016 as the researchers finishing master's degree at NTNU School of Entrepreneurship at the Department of Industrial Economics and Technology at NTNU. The thesis is a theoretical and empirical study of growth strategies for two-sided platforms.

The paper explains the composition of a two-sided platform and highlights the necessity for entrepreneurs and strategists to understand how one can create growth strategies. There has been a raise of two-sided platforms in recent years worldwide, but since theory have been lacking on how to create growth strategies, the researchers goal have been to contribute to this area to help more entrepreneurs and managers succeed with their businesses. Two-sided platforms are revolutionizing the economies around the world with examples ranging from Uber, Airbnb and Spotify in western countries, to Didi Kuadi and Alibaba in eastern countries. All companies named have been listed at Fortune's Unicorn list amongst the top 15 most valued privately held companies in the world. The importance for entrepreneurs and managers to understand how they can leverage the business model of a two-sided platform and create growth strategies can not be addressed enough. The researchers are founders of the two-sided platform Graphiq and have been motivated to use the paper's findings to create growth for Graphiq.

This paper would never have been realized without the support given by our supervisor, Frode Heldal from the Department of Industrial Economics and Technology at NTNU, who have shown us opportunities, enlightened us with new insight and shown high flexibility by giving us rapid and valuable feedback. We want to thank him for his patience. A thank you is also directed to our interviewees who took their time to share valuable insights. Lastly we want to give a thank you to the faculty at NTNU School of Entrepreneurship for making it possible to both write an academic paper and run a startup simultaneously.

Oslo, June 16, 2016



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Abstract

Two-sided platforms are becoming an increasingly important part of the economy and our daily life with some of the most influential and innovative companies in the world being two-sided platforms, for example Uber, Airbnb, Alibaba, Facebook and Amazon. Two-sided platforms are characterized by a business model that creates value by facilitating interaction between two different user groups in a two-sided market. Growth of the two markets is driven by network externalities between participants in each market. A challenge every two-sided platform face is how to grow two markets simultaneously since they are dependent on each other. As two-sided platforms have fundamental differences from other business configurations, general business strategy theory is not necessarily applicable to two-sided platforms.

Cusumano (2010) states that platform competition is first and foremost won by the best strategies, not products. Understanding how platform strategies are created is therefore important. The aim of the paper is therefore to answer the research question: *how to create growth strategies for two-sided platforms*. To answer the research question a literature review and an empirical study have been conducted.

The literature review has unfolded 12 growth strategy categories for two-sided platforms, under which strategists can conceive specific growth strategies for their platform. Further, the literature review has been the basis for the creation of a framework consisting of four models to better understand the nature of two-sided platforms.

The empirical study has been a case study investigating the two-sided platform company Graphiq by interviewing eight of its users. Supporting data is collected from documentation, data archives and physical artifacts.

The findings from the interviews together with supporting evidence gives the basis for discussing how one can create growth strategies for Graphiq by using the theoretical framework and the 12 growth strategy categories presented. This show how strategists in general can create growth strategies for two-sided platforms. The paper concludes that this can be done in a four step process: 1) Diagnose your platform with the two-sided platform framework. 2) Analyse value creation on the two-sided platform by understanding the platform user groups, for example through interviews. 3) Conceive strategies under the 12 strategy categories based on the feedback from your users. 4) Prioritize the strategies based on your type of platform, and which phase the

platform currently is in. Using the method one will be able to attract new users and grow a two-sided platform.

Sammendrag

To-sidige plattformer er blitt en stadig viktigere del av verdensøkonomien og vårt daglige liv. Noen av de mest innflytelsesrike og innovative selskapene i verden er to-sidige plattformer, for eksempel Uber, Airbnb, Alibaba, Facebook og Amazon. To-sidige plattformer baserer seg på en forretningsmodell som skaper verdi ved å tilrettelegge for transaksjoner mellom to ulike brukergrupper. Dette gjør at to-sidige plattformer har et to-sidig marked. Vekst av de to markedene er drevet av nettverkseffekter mellom deltakerne i hvert marked. En utfordring hver to-sidig plattform møter er hvordan gro to markeder samtidig, siden de er avhengige av hverandre. Siden to-sidige plattformer har grunnleggende forskjeller fra andre forretningsmodeller, er generell forretningsstrategi ikke nødvendigvis gjeldende for to-sidige plattformer.

Cusumano (2010) sier at konkurransen mellom plattformer først og fremst blir vunnet av de beste strategiene, ikke produktene. Derfor er det viktig å forstå hvordan man skaper vekstsstrategier for to-sidige plattformer. Målet med artikkelen er derfor å besvare problemstillingen: *hvordan skape vekststrategier for to-sidige plattformer*. For å besvare problemstillingen er det gjort en litteratur-undersøkelse og en empirisk undersøkelse.

Litteratur-undersøkelsen har utfoldet 12 vekststrategi-kategorier for to-sidige plattformer, der strateger kan utarbeide spesifikke vekststrategier for deres plattform under hver av dem. Videre har litteraturen vært grunnlaget for etableringen av et rammeverk som består av fire modeller for å bedre forstå to-sidige plattformer.

Det empiriske studiet har vært et case-studie av det to-sidige plattform-selskapet Graphiq ved å intervjue åtte av deres brukere. Tilleggsdata er hentet fra dokumentasjon, data-arkiver og fysiske gjenstander.

Funnene fra intervjuene sammen med tilleggsdataen har gitt grunnlag for å drøfte hvordan man kan skape vekststrategier for Graphiq ved å bruke det teoretiske rammeverket og de 12 vekststrategi-kategoriene. Dette viser hvordan strateger generelt kan skape vekststrategier for to-sidige plattformer. Artikkelen konkluderer med at dette kan gjøres gjennom fire trinn: 1) Diagnostiser plattformen din ved hjelp av det to-sidige plattform-rammeverket. 2) Analyser verdiskaping på plattformen ved å forstå brukergruppene, for eksempel gjennom intervjuer.

3) Lag strategier under de 12 strategi-kategoriene basert på tilbakemeldinger fra brukerne. 4) Prioriter strategier basert på plattform-type, og hvilken fase plattformen er i.

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1. Introduction

Two-sided platforms are becoming an increasingly important part of the economy (Cusumano, 2010). In 2007, 60 of the 100 most valuable companies earned over 50% of their revenue from two-sided platforms (Eisenmann, Parker & Van Alstyne, 2011). Number one and three on Fortune's Unicorn List, Uber and Airbnb, are platform companies (Fortune, 2016). The largest IPO in history is also done by a platform company, Alibaba in 2014 (Mac, 2014). Stabell and Fjeldstad (1998) described platforms as one of three configurations for companies to deliver value. Two-sided platforms are characterized by a business model that creates value by facilitating interaction between two different user groups (Rochet & Tirole, 2003).

There are three core issues that distinctly separate two-sided platforms from other types of business configurations. First, two-sided platforms are "characterized by the presence of two distinct sides whose ultimate benefit stems from interacting through a common platform" (Rochet & Tirole, 2003, p. 990). Second, the value for one group of participants depends on the number of participants in the other group (Sun & Tse, 2009). Third, Muzellec, Ronteau & Lambkin (2015) argues that a platform business needs to deliver two different value propositions to the two distinct groups of participants.

Two-sided platforms operate in a two-sided market, and the growth of the two markets is driven by network externalities between participants in each market. A challenge every two-sided platform face is how to grow two markets simultaneously since they are dependent on each other. This gives rise to a "chicken & egg"-problem which entrepreneurs and managers have to overcome to create a sustainable two-sided platform company (Caillaud & Jullien, 2003).

Two-sided platforms have thrived along with the emergence of the Internet as it has made connecting people a commodity. But it exists in many forms; All the way from game consoles, credit cards and nightclubs to the sharing economy. The work of Rochet and Tirole (2003) laid an important theoretical foundation for the two-sided platform literature, and draws on many concepts of the network theory introduced in 1985 by Katz and Shapiro. They introduced the term network externalities, which is at the core of two-sided platforms: more participants in a network lead to further more participants.

The literature initially had an economic rather than strategic view on two-sided platforms. As Cusumano (2010, p. 34) states "We are still in the early stages of understanding how common

and important industry platforms really are." Evans and Schmalensee (2012) followed up by stating that platforms are becoming more and more important in modern economy. There have been done some fundamental work on platform strategies (e.g. Armstrong 2006, Eisenmann, Parker & Van Alstyne 2011 and Parker & Van Alstyne 2014) with focus on describing the effects of different strategies, but there is a gap in the literature on how these strategies are created. As two-sided platforms have fundamental differences from other business configurations, general business strategy theory is not necessarily applicable to two-sided platforms. Taking into account Cusumano's statement that platform competition is first and foremost won by the best strategies, not products, understanding how platform strategies are created is therefore important. Thus we are investigating the following research question:

RQ: How to create growth strategies for two-sided platforms.

With *create* we hereby refer to "the process by which a realized strategy is formed" (De Wit & Meyer, 2010, p. 339). With *growth* we refer to growth in number of participants on the platform, not financial growth as that includes other factors which makes the research to broad. We are focusing on *growth strategies* for two main reasons; the key to create a viable platform business is growth (Caillaud & Jullien, 2003), and growth for platforms is created by positive network externalities (Rochet & Tirole, 2003), which is unique for this business configuration.

To research this question we have done a literature review of platform theory to date, constructed a framework to better understand and conceive platform strategies, and then used the framework to analyze and construct growth strategies for a case company, Graphiq. The analysis of the case company are thereafter generalized to give practical implications to similar platforms, and to discover where further research is needed.

This paper is organized as follows. First, a literature review of two-sided platform theory and growth strategies within the field is presented. Secondly, a framework for how to create growth strategies is created and presented based on the literature review. Third, we present the methodology used in this research. Fourth, we give a presentation of the case company being studied. Fifth, we present the findings from the case company research. Sixth, we analyse and discuss the findings and present recommended growth strategies. And lastly, a conclusion of the

research is presented together with implications, further research opportunities and the studies limitation.

2. Literature Review

2.1 Introduction

In this section we will give a review of the two-sided platform literature, focusing on what distinguishes them from other types of business configurations. First, we define two-sided platforms and take a closer look at the two core elements: *network externalities* and levels of *platform competition*. Second, we list the twelve strategies we have identified in the two-sided platform literature. This will work as a foundation for examining the research question. We will use real business examples to clarify terms along the way. Thirdly, we give a short view on how to combine strategies. Finishing of we present a summary of the twelve strategies in a table..

2.2 Two-Sided Platforms

By the definitions of Rochet and Tirole (2003), Sun and Tse (2009) and, Muzellec, Ronteau & Lambkin (2015) reviewed in the introduction of this paper, there are three core issues that distinctly separate two-sided platforms from other types of business configurations. First, the value for one group of participants is delivered by the other (Rochet & Tirole, 2003). On Amazon, for example, the book the consumer wants to buy is delivered by a seller, not Amazon. Second, the value delivered to one group is dependent on the size of the other (Sun and Tse, 2009). In the Amazon example, a large amount of potential buyers is of great value for the seller because it increases the chance of selling and decreases time to sale. Third, and last, the value proposition is different for the two groups of participants (Muzellec et. al., 2015). On Amazon the main value proposition to the sellers is to earn money, for the buyers it's to get hold of books in an easy and swift way.

Stabell and Fjeldstad (1998) identified platforms as one of three elemental configurations through which firms generate value. They coined it "value network" and states that the value creation logic comes from linking customers. This separates it from "value chain" where the

value creation comes from transformation of inputs into products in a sequential manner (e.g. a car manufacturer), and "value shop" where the value creation comes from solving customer problems in a cyclical manner (e.g. a consultancy) (Stabell & Fjeldstad, 1998). Unique for the platform configuration is the "chicken & egg"-problem that arises when the business is trying to get participants to board the platform: one group will not join without the presence of the other (Caillaud & Jullien, 2003).

The "chicken & egg"-problem is rooted in the concept of network externalities: The larger the number of participants, the greater the benefit to each (Katz & Shapiro, 1985). Therefore an increase in the number of participants leads to a further increase in the number of participants (Appold & Kasarda, 2011).

2.2.1 Network Externalities

Network externalities occur both as *within-group externalities* and as *cross-group externalities*. Within-group externalities (also called direct network externalities) make participation more attractive to each individual as more individuals in the same group participate (Rohlfs, 1974). This is typical for social networking platforms like Facebook. When a group of participants become big enough, it can be of great value for another. In Facebook's example a large consumer base is of great value for advertisers. This effect is termed cross-group externalities, and is what characterize and define two-sided platforms as it has to be present for a platform to be viable (Sun & Tse, 2009).

Evans and Schmalensee (2010) introduce the term *critical mass* to describe the nature of network externalities. Critical mass is defined as the number of participants needed to create positive network externalities by attracting more participants that eventually will drive growth until a business reach a stable equilibrium. If the network has less than critical mass, the network externalities will act negatively and drive the number of participants to zero. This is shown by the decline of Friendster (the first social networking site), which has closed, and the rise of Facebook with over 1.4 billion monthly active users in 2015.

Further, Evans and Schmalensee (2010) argue that the critical mass constraint is two-dimensional for two-sided platforms because of the cross-group externalities present. For Amazon to be a valuable platform for both buyers and sellers, there has to be a certain amount of both buyers and sellers.

Rysman (2004) argues that the growth of a network may be limited by negative within-group externalities that occur due to competition among participants. For example, Amazon sellers compete for the same buyers. This is called congestion effect and Sun (2007) shows that this means that the growth of two-sided networks has a finite limit. This is a sort of competition, which is unique for the two-sided platform business configuration, and is one of three levels which competition occurs in platforms.

2.2.2 Platform Competition

The three levels of which competition occurs in two-sided platforms are; 1) platform to platform, 2) platform to partner, and 3) between participants within platform (Parker & Van Alstyne, 2014). Configuration 1 is found between platforms, like for Uber and Lyft which both are platforms connecting drivers with passengers.

Configuration 2 occurs when the platform take on its partners by developing competing products or services. Like when Microsoft developed Windows Media Player and competed with one of its partners, RealNetworks, who made a video player for Windows (Eisenmann et al., 2011).

Configuration 3 occurs when participants within one group competes. As in the case of Uber and Lyft where drivers in the same city competes for the same passengers.

The nature of competition for two-sided platforms is dependent on whether the participants single- or multi-home. Single-homing is when a participant chooses to use only one platform, and multi-homing is when a participant is present on two or more platforms (Armstrong, 2006). Further, Armstrong (2006) shows that this leads to three configurations; 1) both groups single-home, 2) one group single-home and one group multi-home, and 3) both groups multi-home.

With configuration 1) it is most likely that one platform will dominate the market (Sun & Tse, 2007b). This is the case of Facebook as the number one social networking site. Sun and Tse (2007b) shows that "as the tendency for single-homing increases, the likelihood for a smaller network to survive and co-exist with the larger one decreases" (Sun and Tse, 2007b, p. 37). MySpace, for example, could not compete with Facebook and pivoted into a fan site for musicians, as it could not co-exist as a social networking site.

Configuration 2) is the most common according to Armstrong (2006), and he refers to them as competitive bottlenecks: “Here, if it wishes to interact with an agent on the single-homing side, the multi-homing side has no choice but to deal with that agent’s chosen platform” (Armstrong, 2006, p. 669). Thus giving the platform with one single-homing group monopoly power of providing access to that group for the multi-homing side. This is the case of Etsy, a marketplace for handmade items, where sellers tend to only sell their items on Etsy giving the platform monopoly power of providing access to the handmade items. As they coin themselves: “Discover items you can’t find anywhere else” (Etsy, 2015).

Configuration 3) is according to Armstrong (2006) uncommon because “If each member of group 2 joins all platforms, there is no need for any member of group 1 to board more than one platform if the goal is to reach group 2”. Sun and Tse (2007b) argues that it is possible for multiple platforms to exist when participants tend to multi-home. In the case of Uber and Lyft many drivers multi-home, simply to increase their chance of getting assignments. Passengers also multi-home because there are economic incentives in doing so (free rides provided by the platforms), and because they tend to use the platform that can provide them with a ride the fastest which might differ from time to time and place to place. Both Uber and Lyft co-exist despite the strong competition between them, thus underpinning the statement of Sun and Tse (2007b).

Evans and Schmalensee (2010) argues that consumers tend to multi-home because of differentiation between different platforms and because it’s easy to switch between platforms. As in the case of Amazon and Etsy, many consumers are present on each platform because of the differences in what kind of products you can buy. Caillaud and Jullien (2001) shows that the emergence of Internet opens possibilities of sophisticated pricing strategies that makes it possible to steal the competing platform’s participants. For example the pricing strategies deployed by both Uber and Lyft where passengers get $20 off when you register, leading to passengers registering at both platforms. Thus making, “market structures with overlapping market shares (...) likely to emerge, where one or two groups of users rely on several matchmakers to satisfy their needs” (Caillaud & Jullien, 2001, p. 41).

This leads to the interesting observations of Eisenmann et al. (2011, p. 1283) that platform firms can enter markets without Schumpeterian innovation due to the possibility of “leveraging shared user relationships and common components in a multi-platform bundle”. Cusumano (2010, p. 34) adds to this by stating, “Who wins and who loses these competitions is not simply a

matter of who has the best technology or the first product. It is often who has the best platform strategy and the best ecosystem to back it up."

Therefore, how to create growth strategies for two-sided platforms can have important practical implications for managers and entrepreneurs.

So far, we have described two-sided platforms and what distinguishes them from other business configurations. Especially by looking at network externalities and how competition occurs for two-sided platforms. In the next section we will review the growth strategies described in existing literature.

2.3 Growth Strategies in the Literature

2.3.1 Introduction

In this section we will first define growth strategy in the context of two-sided platforms, then present the different growth strategies described in the literature, and lastly discuss the combination of the aforementioned strategies.

Mintzberg (1987) present the five p's for strategy: plan, ploy, pattern, position and perspective. Each definition is not prioritized over one another and all the p's work together. Each element is important to our understanding of strategy. In the field of platform strategy Van Alstyne and Parker (2014) defines a platform strategy as "the mobilization of a networked business platform to expand into and operate in a given market".

It is stated that two-sided platforms differ from product platforms due to the presence of stronger network externalities, possibilities of multi-homing participants and switching costs (Van Alstyne & Parker, 2014). All these effects lead to stronger competition and hereby firms need clearer guidelines for how to mobilize and expand into and operate in a given market. To be able to do so firms need strategies for launching, drive user adoption to grow, manage governance and their competitors (Evans & Schmalensee, 2010). Strategies uncovered in today's existing literature are further presented.

2.3.2 Subsidizing

Subsidizing is a common two-sided platform strategy that involves subsidizing one side of the market to make them board the platform and thus overcome the chicken and egg-problem.

One of the first key decisions in a network platform strategy is pricing (Eisenmann, Parker & Van Alstyne, 2006). A two-sided platform operating in a two-sided market are able to collect revenue from both user groups unlike independent firms. It often makes sense to subsidize one user group by discounting one side of the market. The goal of subsidizing is to increase growth in both markets or increase profits from one side (Parker & Van Alstyne, 2000). Determining which side to subsidize and for how long is a challenge. Some authors suggest that a two-sided platform can subsidize one side of the market indefinitely as the goal never is to capture revenue from this side of the market (Parker & Van Alstyne, 2000). The overarching goal of a subsidy strategy is to entice users to join a platform. Subsidies can take the form as direct cash transfers, price discounts, permanent discount, technical support, physical goods, free information or other means that entices a user to join (Parker & Van Alstyne, 2014).

Theory suggests that two-sided platforms have a user group that, when subsidized and attracted in a large quantity, will attract the other side of the market, often referred to as the "money side". As network externalities are crucial to platforms, the price for the subsidy side should start out lower than it would if a firm only served this side of the market. On the other hand the platform will charge the "money side" more for access to the large subsidized user group than it would if only serving the "money side". The goal is to create cross-group network externalities as the platform can charge the money side users more if they are able to give them access to a large subsidized user group (Eisenmann et al., 2006). The strategy of subsidizing is also referred to as "divide-and conquer" by Caillaud and Jullien (2003) whereby the group you subsidize is the "divide" side and you "conquer" the loss from the other user group.

2.3.3 Pricing Strategy

A two-sided platform can manipulate the prices as a strategic tool to fuel growth. Subsidizing can be seen as a subset of a pricing strategy. The difference is that pricing strategy is the term used to describe how platforms typically have low or no fees in the beginning to attract users and then gradually increase the prices to capture greater revenue, while subsidizing is the specific event of subsidizing one side of the market.

By setting low or no fees there will be higher incentives for users to join the platform and the two-sided platform is more likely to generate positive network externalities (Sun & Tse, 2007a). Case studies from literature confirm this strategy as viable. Firms have started out with a

two-sided platform without charging their users any fees. After the platform gathered enough momentum and it had achieved sustainable growth it successfully introduced a fee or increased the price without having customers leave the platform (Sun & Tse, 2007a).

Evans (2012) introduces tilting as a pricing strategy for two-sided platforms. It is common for two-sided platforms to charge users a fee or price for access to or use of its platform. The theory states that as the demand for the platform, and value created for each user group differs, pricing can be adjusted between the groups to reach the optimal price equilibrium that generates highest surplus and sign-ups from each user group. In short, this means that the margin from each user group will be different. In some cases tilting is also typically seen together with subsidizing.

2.3.4 Trialability

Trialability is the process of providing a product or service for free in a limited time to users. It is used as a strategy to attract new users to a platform as explained by Gallaugher & Wang (2002). With the rise of the Internet, giving users access to products or services can be done almost with zero marginal cost (Nejmeh, 1994). Trialability also gives consumers a guarantee of quality and theory suggests that users are expected to pay a higher price after they have tested a product, roughly 110 to 120 percent. (Gallaugher & Wang, 2002).

2.3.5 Micro Market

Micro market is the strategy where the two-sided platform focuses on a small community of users to generate positive network externalities amongst the members of the community (Van Alstyne, 2014). The argument with this strategy is to attract a substantial part of the community you are targeting and hereby generate stronger network externalities than you would be able to create if targeting a larger community. To grow from this micro market a platform can enter adjacent groups by attracting new users to the platform and hereby increase the network externalities further. Uber has successfully deployed this strategy by focusing on getting the service up and going in San Francisco first, before moving on to other cities.

2.3.6 Marquee Users

Marquee users can be described as users that bring many times the value of a regular user to the platform. This can be a buyer who buys in high volume, or a celebrity that attracts thousands of

users to a photo-sharing platform. Attracting marquee users as a strategy is explained by Eisenmann et al. (2006). They argue that attracting marquee users can bring the users of the other side of the market on board the platform. Attracting these users will accelerate growth of the other side of the market and especially if the platform is able to create an exclusive deal with the marquee user to single-home on that platform. For small platforms it may be expensive to sign exclusive deals with marquee users.

2.3.7 Piggybacking

A strategy when launching a two-sided platform is piggybacking on another network. Parker and Van Alstyne (2014) present piggybacking as a strategy where a new two-sided platform borrows users from another network. As Sun and Tse (2007a) argue, it's a lot easier to grow a two-sided platform if you are able to bring on users from one side of the market. Their theory is aligned with what Parker and Van Alstyne (2014) present, suggesting a network platform to leverage on an existing user base from an existing network. It is argued that converting an existing user base into participants of a new network is a lot easier than building a user base from scratch.

Sun and Tse (2007a) introduces distributors of a network as a type of agents not previously discussed in the two-sided platform literature. They define them as "agents who produce and sell network-specific products to participants on either or both sides of the market" (Sun & Tse, 2007a, p.167), and uses how banks distribute Visa cards as an example. This can be seen as some sort of piggybacking, where Visa piggybacks on the bank's network.

2.3.8 Envelopment

Platform envelopment is when a firm leverages the user base of their existing platform to attack another platform by introducing a similar one (Eisenmann et al., 2011). Microsoft did this by introducing Windows Media Player (WMP) to their user base of the Windows operating system, and thus attacking RealNetworks video platform that was serving the same user group. WMP was not considered a superior product, but Microsoft's control of the user group enabled them to squeeze RealNetworks out of the market (Eisenmann et al., 2011). The enveloper is typically larger and financially stronger than the platform firm that is being attacked (Suarez & Kirtley, 2012). The key is that there is a user overlap between the existing user groups the enveloper controls and the potential user group for the new platform (Eisenmann et al., 2011).

2.3.9 M&As, Licenses and Alliances

A strategy to grow a firm's user base is to acquire or merge with a competing platform. Combining two networks is stronger than one, and this can be a strategy to overcome the chicken and egg-problem (Sun & Tse, 2007a). Elance and oDesk merged in 2014 to create the world's largest platform connecting freelancers with work.

Licenses or alliances can be another strategy to get hold of a large user base. American banks made an alliance to create Master Charge (now Mastercard) as a response to Visa (Sun & Tse, 2007a). Firms can also license access to a large user base.

The drawbacks with these strategies is the cost; high premiums for merger and acquisitions, royalties for licensing, and profit share in the case of alliances. For licensing and alliances the firm gives up their independent control of the network and acts as distributors of the combined network (Sun & Tse, 2007a).

2.3.10 Seeding

Seeding is a strategy where you create enough value for one side of the market without the presence of the other side (Gawer & Henderson, 2007). This can be done either by developing product benefits or by incentivizing others to create complementary functions for your solution. Suarez and Kirtley (2012) supports this strategy and suggests that you should find a specific user group and solve their needs. By customizing a solution for one group you are able to create strong network externalities within this group and it will fuel its own growth. Theory also suggest entering a market where you can focus on solving customer's future needs and not necessarily the ones that are being solved today. You can do this by focusing on few product benefits that are highly valued by your target user group (Suarez & Kirtley, 2012).

Seeding is all about creating product benefits that users are attracted to (Suarez and Kirtley, 2012). Theory shows that product benefits are especially important when working in markets where both sides multi-home. In this case a smaller two-sided platform can outperform a larger network even though it starts of with a less amount of users. Seeding can therefore be said to be a recommended strategy in a competitive market where users multi-home and there are incumbents with larger user base than the challenger. Theory also suggest that it is only possible to outcompete a larger incumbent as long as the product parameters is a certain level higher than

the competitor, and that this strategy is more effective in a market where users multi-home than single home (Sun & Tse, 2007b).

2.3.11 Versioning

Supported by existing theory within market segmentation and product differentiation, versioning as a strategy is focused on providing a wide product line with several vertically differentiated versions (Bhargava & Choudhary 2004). This strategy is suggested to be relevant in two-sided markets with large network externalities (Bhargava & Choudhary 2004). It is argued that versioning can be used for firms to gain both profitability and growth and hereby can be a guidance for firms that wants to commercialize platform technologies (Bhargava & Choudhary 2004). Rochet and Tirole (2003) are skeptical to the value of creating products or services of the highest quality or richness. They argue that users value the existing user base and market dominance higher than product benefits or richness. That is also why the best product doesn't always win (Gallaugher & Wang 2002).

2.3.12 Governance

As showed earlier, in platforms the groups deliver value to each other. This implies that the platform itself has less control over the value delivered, and thus arises a need for governance. Problems that might evolve are information asymmetry, uninsured risks and congestion (West, 2003). Strahilevitz (2006) showed that game platforms and social networks have addressed a "lemons problem" where low quality drives out high quality. The platform can use a combination of technological lock-out mechanisms, quality review, reputation systems, contracts, economic instruments and "bouncer's right" to exclude or regulate participants that deliver low quality or conducts bad behavior (e.g. Boudreau & Hagiu, 2009). Uber for example have a rating system of both the drivers and passengers, where drivers with less than 3 of 5 stars are being excluded from the platform.

Evans (2012, p. 1208) shows that "rules applied that divide the pie differently change the size of the pie", showing that governance has an impact on platform growth. O'Reilly (2011) argues that for platforms with little market share, governance tends to be less permissive in participation but more permissive in behavior. As market share increases, governance tends toward tighter control over behavior but looser control over participation.

2.3.13 Information

Providing enough information for users on both sides of the market have proven to reduce cost and improve efficiency, thus being a driver for growth (Evans, 2012). Information can help reduce search and transportation cost as users more easily understand or find what they are looking for (Sun & Tse 2007a). It is said that as users get access to information, it is easier for them to find the match that will give the highest value from the trade. While information in most cases is recommended, too much transparency can be negative for one user group and thus leave to negative network externalities (Evans, 2012). In a marketplace for babysitters a buyer would value, as much information as possible on the service provider, but too much information might be an infringement of privacy for the service provider.

2.3.14 Strategy Combination

We have now presented strategies for two-sided platform growth reviewed in the literature. Appold and Kasarda (2011) discuss how combination of tactics affects growth for airport, but also refer to Evans (2003) who looked at software platforms. They argue that a "stepped, zig zag approach to business development, shifting recruiting emphasis from side to side (...) may be more effective than an intense, "boil the ocean" development strategy". "Boil the ocean" refers to an approach where a firm uses all means and options available to grow the business (Gerstner, 2002). Evans (2003) showed that the firms who tried to grow large quickly, often failed. The development of successful platforms happens in incremental steps, like how Facebook originally was a dating platform for Harvard students. The grand visions are often developed post hoc (Appold & Kasarda, 2011). This indicates that a determined and focused approach on a small set of tactics to create positive network externalities in a small niche or geographic market is the way to grow for platform firms.

2.3.15 Summary of Strategies

We have now presented twelve growth strategies described in the two-sided platform literature: *subsidizing*, *pricing*, *trialability*, *micro market*, *marquee users*, *piggybacking*, *envelopment*, *M&As, licenses and alliances*, *seeding*, *versioning*, *governance* and *information* (See table 2.1 for overview). They have showed how network externalities and thus growth can be fueled by specific means. As they are linked to network externalities, these strategies are unique for the

platform business configuration. This makes them an important contribution to strategists working with platforms.

In the following we will construct and discuss a framework consisting of four models with the purpose of giving strategist a foundation for how to create growth strategies for two-sided platforms.

Growth Strategies	**Short Description**
Subsidizing	Subsidizing one side of the market to make them board the platform.
Pricing Strategy	Low or no fees in the beginning to attract users
Trialability	Providing a product or service for free in a limited time to users
Micro Market	Focus on a small community of users to generate positive network externalities amongst the members of the community
Marquee Users	Recruit users that bring many times the value of a regular user to the platform
Piggybacking	Leverage a user base from an existing network
Envelopment	Leverage the user base of your existing platform to introduce a new one
M&As, Licenses and Alliances	Merge, acquire, license or make alliance with another network
Seeding	Create enough value for one side of the market without the presence of the other side through product benefits
Versioning	Provide a wide product line with several vertically differentiated versions
Governance	Quality control of the value delivered on platform
Information	Provide information to reduce cost and improve efficiency

Table 2.1: The 12 growth strategy categories for two-sided platforms identified in the literature review.

3. Framework

3.1 Introduction

Based on two-sided platform theory and platform strategies, we have created a framework to help strategists create growth strategies for two-sided platforms. The framework we present will give a foundation of strategy creation as it helps strategists diagnose and conceive, which is two of four steps in strategy creation according to De Wit and Meyer (2010). First, it will help strategists *diagnose* because it describes the most important variables and how they are related to each other in a two-sided platform. Second, it will help strategists *conceive* as it can be used as a tool for strategy generation and selection.

The two other steps in De Wit and Meyer's (2014) model is *Identify*, which is the first step, and *realize* which is the last step. In the case of growth strategies, we assume that the strategist already have identified that there is a growth problem. It can be either that the growth is declining, not going fast enough, or the belief that the platform can grow faster.

The last step is realizing which are the actual concrete actions done to realize the conceived strategy. The framework will not directly help managers *realize* as realization is only done through concrete actions. But it will lay the foundation on which the actions are taken upon, thus having an indirect effect on realization.

The framework consists of four models: 1) *The Two-Sided Platform Model*, 2) *The Platform Type Matrix*, 3) *The Group Role Matrix* and 4) *The Phase Model*. *The Two-Sided Platform Model* shows how value creation occurs in a two-sided platform, which is important to understand to fuel growth. *The Platform Type Matrix* describes nine different types of two-sided platforms which helps strategists diagnose and conceive strategies based on what type of platform they are. *The Group Role Matrix* shows the relationships between group one, group two and potential distributors in a two-sided platform, and from which group the platform makes profit. *The Phase Model* shows how a growth strategy impacts differently depending on which phase a two-sided platform are in.

Just as how a doctor is able to diagnose a child with growth problems and give him the right nutrition to fuel growth, these models shall help strategists diagnose their two-sided platform and conceive strategies to fuel growth.

Framework	Framework description
The Two-Sided Platform Model	Shows how value creation occurs in a two-sided platform
The Platform Type Matrix	Describes nine different types of two-sided platforms
The Group Role Matrix	Shows the relationships between group one, group two and potential distributors in a two-sided platform
The Phase Model	Shows how a growth strategy impacts differently depending on which phase a two-sided platform are in

Table 3.1: Overview of the four models in the constructed framework.

3.2 The Two-Sided Platform Model

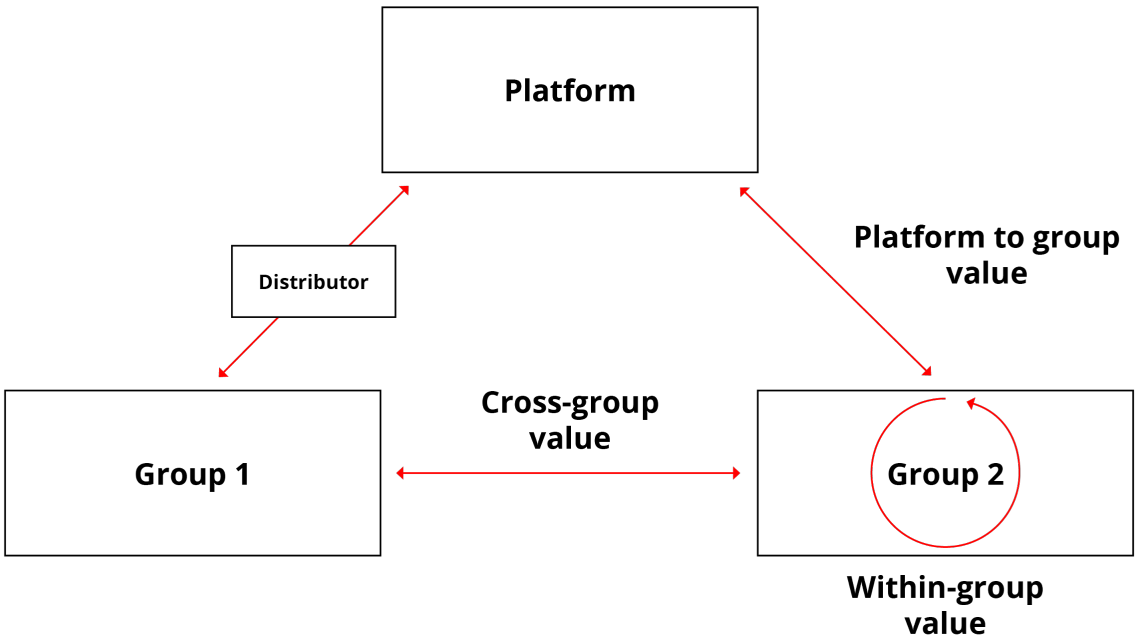

Figure 3.1: The Two-Sided Platform Model illustrating the value creation and relationships for a two-sided platform

3.2.1 Model Description

The Two-Sided Platform Model illustrates the value creation in a two-sided platform by looking at the relationships between the groups and the platform owner. To understand the model some definitions are presented:

Platform

A platform created by an entity to generate value for one or more groups. I.e. Spotify is a platform for artists to sell and promote their music, while it's a platform for music lovers to discover and listen to music.

Participant

An individual person who participates on the platform in some kind of group. It is important to note that a participant have the possibility to be part of more than one group. As an example, a participant can both be a "seller" by listing her house for rent on Airbnb, but also a "buyer" by renting houses on Airbnb.

Group

A group of participants that has one distinct role on a two-sided platform. The role can either be a consumer, provider, complementor, buyer or seller. I.e. all participants on Craigslist that sells items are part of the group "sellers". Note that participants can be in more than one group, but a group can only have one role. To continue our example with Craigslist, some participants that are sellers can also be buyers and then also be part of the group "buyers", this means that some participants can be part of two groups, but each group has its own role.

Distributor

An entity that distributes the platform to network participants (Sun & Tse, 2007a). Banks are considered distributors of the Visa and Mastercard platforms, where consumers and merchants are the different groups of the two-sided platform. Most platforms are distributed over the Internet, making Internet the most important distributor for two-sided platforms. As discussed earlier, the rise of the Internet is the most important factor for the rise of two-sided platforms as Internet makes it easy to distribute two-sided platforms to potential participants.

Platform-to-group value

The value a platform gives to one group. As an example, the two-sided platform Graphiq give value to graphic designers by giving them access to a platform where they can receive job offers and get paid.

Within-group value

The value created by participants within one group. In some cases, as participants join a group, the value increase for all the participants within that group. This is referred to as within group externalities. As an example, the more participants that join Facebook, the more value it is for each individual to be part of Facebook.

Cross-group value

The value created between two groups. As participants join one group, there will be an increased value to join the group on the other side of the market. Looking at eBay, the value to join "buyer" group will increase if more participants join the "seller" group first. And then again if more participants join the buyer group, even more participants want to join the seller group to be able to sell to the buyer group.

3.2.2 Growth Strategy Impact

Diagnosing

The framework can diagnose as it can help managers understand where the problem lies and what the problem is. As the framework shows, a platform can deliver value either through platform-to-group value, within-group value, cross-group value or a in combination of those. Looking at a typical example that might occur for platforms is when groups create cross-group value without the presence of the platform. If this is the case, the platform needs to facilitate more value in one or both interactions by doing a strategic change. TaskRabbit is a peer-to-peer platform connecting people who need help, with "taskers" that can do their tasks. TaskRabbit discovered early that after their users had matched once, the platform didn't offer any extra value as the person in need of help could just text or call the tasker. Users started helping each other without the platform and the platform didn't offer any value.

Conceiving

As strategists have diagnosed the problem they can use the framework as a tool to conceive growth strategies that solve the diagnosed problem. Let's continue the previous example. The strategist has understood that it needs to offer more value to its users. A strategy can hereby by a *seeding strategy*, which is focused on product benefits. This can either be done by creating value for both groups, or a lot for one group so they will use the platform now matter what. TaskRabbit understood that it had to offer more value to users if they were to use their platform. Therefore they started using a seeding strategy by creating product benefits for their users.

3.2.3 Critique and Limitations

The model presented is limited to explain interactions on two-sided platforms. As soon as more groups are added to a two-sided platform it becomes a multi-sided platform. Multi-sided platforms are more complex than two-sided platforms as there are a lot more connections between groups and relationships. The model is thus only applicable for two-sided platforms.

3.3 The Platform Type Matrix

The Platform Type Matrix shows nine different types of two-sided platforms. In table 3.2, the top row shows different configurations of two-sided platforms. The left column shows the different deliverables being delivered in two-sided platforms. Each box in the matrix provides an example of a company and points for discussion for strategists to reflect upon.

	Type of two-sided platform		
Deliverables	*P2P (peer-to-peer)*	*B2B (business-to-business)*	*B2C (business-to-consumer)*
Products	E.g. SidelineSwap - Need high inventory - Exclusive inventory - Need sufficient information - How to deal with shipping - How to keep users repurchasing on the platform - Short purchasing processes	E.g. Alibaba - High volume, low unit price - Longer purchasing processes - Comprehensive contracts - Stricter standards and requirements for information (directives)	E.g. Windows - Higher expectations for quality of product - Stricter standards and requirements for information (directives)
Services	E.g. Uber - Need information, rating and reviews - Closer interaction between users - Users tend to go outside the platform	E.g. Graphiq - References from clients - Examples of how it works and what it costs - Comprehensive contracts	E.g. Washio - Need to understand the differences between groups - Signing up businesses is time consuming, but can add a lot of value - Easy to acquire users, but need several to create enough demand
Assets	Airbnb - Supply is limited by capacity - Need sufficient information, rating and reviews - Users go outside the platform - Need for governance	Studiotime - Supply is limited by capacity - Users tend to go outside the platform - Need comprehensive contracts and insurance	Hotels.com - Need sufficient information and this can be challenging as businesses provide the platform with different variables - Supply is limited by capacity

Table 3.2: The Platform Type Matrix showing discussion points in each box that managers can use when creating growth strategies

3.3.1 Model Description

Understanding the business context you operate in is essential to crafting growth strategies. Different logic and customer expectation applies to the various deliverables and as a strategist you need to understand what the customer value when creating growth strategies. At the same time, the buying behavior of a consumer versus a business is fundamentally different and you need to create strategies aligned with their behavior. The Platform Type Matrix will let you identify the environment you are operating in and use this to create successful growth strategies appropriate for your environment. Typical reasons for low growth are presented in each box in table 1. These reasons are meant to be used as discussion points as strategist should evaluate how they can be relevant for their own business.

P2P

A peer-to-peer platform connects peers directly with each other. Peers are often similar and peers can be participants in both users groups. As an example a peer can buy and sell sports equipment

on SidelineSwap's platform. High transaction volumes and low margins often characterize a viable P2P platform.

B2B

A business-to-business platform connects businesses directly with each other. As businesses are more bureaucratic, the buying process is often longer. Also, B2B platforms are characterized by involving more comprehensive contracts, involving higher transactions and larger volumes are usually being distributed. As an example, Alibaba, an online marketplace sells high volume products for a low unit price, but high total price. Often contracts are being made in advance of purchase and there is a need for a lot more communication.

B2C

A business-to-consumer platform connects businesses with consumers. Differing from the other model, B2C platforms have two very different groups. One side consists of large businesses that are bureaucratic and "slow". On the other side there are consumers who have a more irrational buying behavior than businesses. The laundry delivery platform Washio connects businesses that do laundry and dry cleaning with customers that want clean clothes. Washio partner up with these businesses and have to market their service to consumers.

Products

In a platform where products are delivered some important factors need to be considered. First, products often need pictures and a description. Secondly, when a product is sold, either the products are removed from the platform or the quantity that is left is reduced. This means that sellers need to add new products, or new sellers have to be attracted to keep a product offering for buyers. Third, product platforms often include shipping that may affect the buyer's purchasing behavior and hence it should be taken into account. Fourth, there exist both digital and physical product platforms. Currently physical platforms are most common, and characteristics mentioned are applicable for these platforms. Digital platforms on the other hand often includes digital shipping and the inventory will never be diminished as the cost of selling another copy of the digital product is virtually to zero. SidelineSwap saw a major increase in sales as they improved

their shipping process and checkout procedure. This shows how the whole process need to be taken into account when creating growth strategies.

Services

In a platform where services are delivered there are often a transaction between two parts. Firstly, a service is limited by work hours or capacity, as it is either a human or a robot that has to deliver the service. Secondly, a service often requires more information such as description, reviews and rating for the consumer as it is harder to describe and the consumer doesn't necessarily know what the end result is. Third, as services often include a close transaction directly between the users many cases have shown that users can tend to go outside the platform the second time. These factors must be taken into account when creating growth strategies for service platforms. Looking at the on-demand service Bizzby that provides child care among other services, users often tend to go outside the platform as the parents and caretaker will get a personal relationship. The need for the platform will therefore be diminished if they are not able to offer any high product offerings for the users.

Assets

This deliverable is focused on the asset and also in many situations it includes a transaction between two users. First, an asset is often fairly easy to describe with information and images. Secondly, when users post their assets to a platform it will not be consumed and removed, but stay there until the user remove it themselves. It is only limited by capacity. Third, asset platforms tend to demand higher governance, as users need to have assurance against damages and fraud. Fourth, as the transaction in many situations include a direct transaction between users, platforms need to create mechanisms that will keep the users on the platform for repetitive purchases. Looking at Airbnb, they have made it simple to post accommodations, they have given their users insurance against damages and they have used a lot of mechanism to block the possibility for users to communicate outside the platform and by this keeping their users on the platform.

3.3.2 Growth Strategy Impact

Diagnosing

As strategists need to understand what context they are operating in, The Platform Type Matrix enable them to do exactly this. Using the model strategists can identify what the problem is by looking at what is being delivered and to whom, and then compare this to typical problems this crossing is facing. In 2009 Airbnb didn't have much traction and their founders was determined to find out why. To diagnose the problem they stayed at different listings and found the problem to be lack of information. Their users weren't showcasing their listings in a good way. They had diagnosed the problem.

Conceiving

After diagnosing the problem strategist need to create strategies to overcome the problem. As the diagnosing phase points toward the reason for the problem, strategist should focus on creating growth strategies that solve the problem. The founders of Airbnb had diagnosed the problem to be insufficient information. As the growth strategy information suggest, giving users enough information can fuel growth as it reduce the cost for users. The founders decided to rent an expensive camera and take pictures of their users listings for free. This improved the information on each listing as users who were looking for a place to stay much more easily could see what they were renting. This lead to a three times increase in bookings in a certain area.

3.3.3 Critique and Limitations

The model presented is a hypothesis for how strategist can easier create and implement successful growth strategies. The model is not complete, but can work as a guidance tool and need to be further developed, as it does not cover all potential problems that should be discussed. Also, problem might arise in the future that are not currently predicted.

3.4 The Group Role Matrix

	Role in platform					
Group	*Consumer*	*Provider*	*Complementor*	*Buyer*	*Seller*	Profits
Group 1			X			$$$
Group 2	X					-$
Distributor	N/A					-$

Table 3.3: The Group Role Matrix showing relationships in a two-sided platform

3.4.1 Model Description

The Group Role Matrix describes the relationship between the two groups, their role in a two-sided platform, distributors and from which group the platform earns its profits. In this section we will first define role, group and distributor, then describe how this matrix can help strategists diagnose and conceive, and lastly look at critics and limitations of the model.

Role

From the theory, we have identified five distinct roles a group can have in a two-sided platform that contributes to network externalities: consumer, provider, complementor, buyer and seller.

First, a consumer group consumes some sort of content or complements and thus is always paired with providers or complementors. Participants consuming pictures on Instagram have the role of consumers, as can be said of participants consuming software on the Mac OS X.

Second, a provider group provides something valuable to a consumer at a platform. For example a merchant accepting Visa provides an easy way of paying for the card holder (the consumer). The group that shares pictures on Instagram or tweets on Twitter is also providers as they provide valuable content to consumers. Many participants on Instagram and Twitter are both consumers and providers thus making it tempting to coin it as a one-sided platform, but it is just a case of what we call multi-grouping (participants being part of multiple groups). The platforms are in fact two-sided, as there are two distinct groups with two different roles (consumers and providers). For the purpose of this example we have excluded advertisers and complementors,

which makes Instagram and Twitter multi-sided platforms today, but they were two-sided in the early days.

Third, a complementor group creates applications for a platform that is of use for the consumers. Game developers and app developers are considered complementors on game console platforms and smartphones respectively.

Fourth, buyers are the role of a group that buys products, services or assets on a platform. This role is always paired with the fifth role, sellers. Platforms connecting sellers and buyers are considered marketplaces. Typical examples are Craigslist and Alibaba. It is important to notice that even though gamers buy games for example through PlayStation Store, they are not considered buyers on the game console platform, only consumers, but they are buyers on the PlayStation Store platform which is a marketplace.

In a two-sided platform we see that we can connect consumers with providers or complementors, or buyers with sellers. Trying to connect a seller and a complementor makes no sense, as there is no cross-group value that can be delivered. You can only connect two groups where cross-group value can be delivered. One could argue that you could connect a buyer with a provider, but only if the provider sells something. In this case we would define the provider as a seller. From multi-sided platforms on the other hand, other configurations are possible.

Groups

For two-sided platforms there are always two groups, 1 and 2. A group is defined as several participants that share one distinct role on the two-sided platform. The role can be one of the group roles described above: consumer, provider, complementor, buyer or seller. In the case of Uber, group 1 is the drivers (sellers) and group 2 is the passengers (buyers).

First, it is important to notice that one group only can have one role. Group 1 can not be a buyer and a seller at the same time, as this contradicts the definition of a group. A participant on the other hand can be a buyer and seller at a platform, but then the participant is part of both groups and is multi-grouping. E.g. a participant can both list his house and rent a house on Airbnb.

Second, the two groups can not have the same role. There can't be two seller groups at a two-sided platform, because there would be no one to buy and thus no network externalities present.

The platform has to earn its profit from at least one of the groups. It can be both, like Airbnb where both seller and buyer pay a transaction fee. Many platforms earn their profits from one group, and subsidize the other. Like PlayStation where their profits are earned from the game developers and the gamers are subsidized.

Distributors

In addition to the two groups, there might be one or more distributors present in the platform with the purpose of distributing the platform to a group. The Internet is the distributor of all web-based platforms. The distributor is defined as an additional group and not a role, as the distributor cannot be one of the two groups in a two-sided platform. If group 1 is a distributor and group 2 is a buyer, this would not be a two-sided platform because there are no possibilities of network externalities between group 1 and 2. For example a sports equipment producer that deliver products to retail stores through a distributor is not a two-sided platform, but what Stabell and Fjeldstad (1998) would consider a value chain.

For PlayStation, the retail stores and websites selling the game console is a distributor of the platform to the gamers, while the Internet is the distributor of the platform to the game developers. This shows that there can be several distributors within one platform, and different distributors to the two groups.

The importance of including distributors in the matrix is to understand the distributors impact on profits. Using a distributor often comes with a cost, but is valuable because it lets the platform reach a greater number of participants in a group. Airbnb has to pay for hosting their site on the web, but this cost is microscopic compared to the value of the distribution power of the Internet.

The distributor might in some cases be a profit source. This is only possible when the distributor sees the value in distributing the platform to be big enough. E.g. in the case of Visa, it is expected that a bank can issue a Visa card and thus some banks might pay Visa to be able to distribute their platform.

To sum up the Group Role Matrix, let's look at PlayStation as an example shown in table 3.4.

E.g. PlayStation	**Role in platform**					
Group	*Consumer*	*Provider*	*Complementor*	*Buyer*	*Seller*	Profits
Group 1: Game Developers			X			$$$
Group 2: Gamers	X					-$
Distributors: Stores Internet	N/A					-$

Table 3.4: Example of PlayStation in the Group Role Matrix

Group 1 are the game developers whose role is complementor because they create applications (games) for the PlayStation platform. PlayStation earns profits from this group. Group 2 are the gamers whose role is consumer. PlayStation does not earn profits on selling the game console platform to this group, it is subsidized. In addition we saw that both retail and online stores distributes the platform to gamers, and the Internet distributes the platform to game developers. PlayStation loses profit from its distributors. For PlayStation to be a viable business, the profits earned from the game developers have to exceed the cost caused by gamers and the distributors.

In the upcoming, we shall look at how this model can help a strategists diagnose and conceive strategies.

3.4.2 Growth Strategy Impact

Diagnose

PayPal is a two-sided platform where group 1 provides access to an easy payment (providers) and group 2 is the ones who pays with PayPal (consumers). PayPal needed to grown the participants using their service. By analyzing eBay with the Group Role Matrix you would find that eBay has the same groups as PayPal, just with different roles. Group 1 is in the case of eBay sellers, and group 2 is buyers.

Conceive

Because of this PayPal was able to piggyback on eBay as it leveraged an existing network of groups PayPal needed in their network. They do not compete with eBay as PayPal facilitates another relationship (provider to consumer, not buyer to seller) and thus was a valuable complement for the eBay platform. Therefore PayPal saw an intense growth due to this strategy.

3.4.3 Critique and Limitations

First, there might well be more roles in a two-sided platform that is not covered in this model, and this might change the dynamics of it. Second, it says little about the relationship between the role of the group and their profit potential for the platform. It would be interesting to look at whether a specific role is more a custom to profits than others.

3.5 The Phase Model

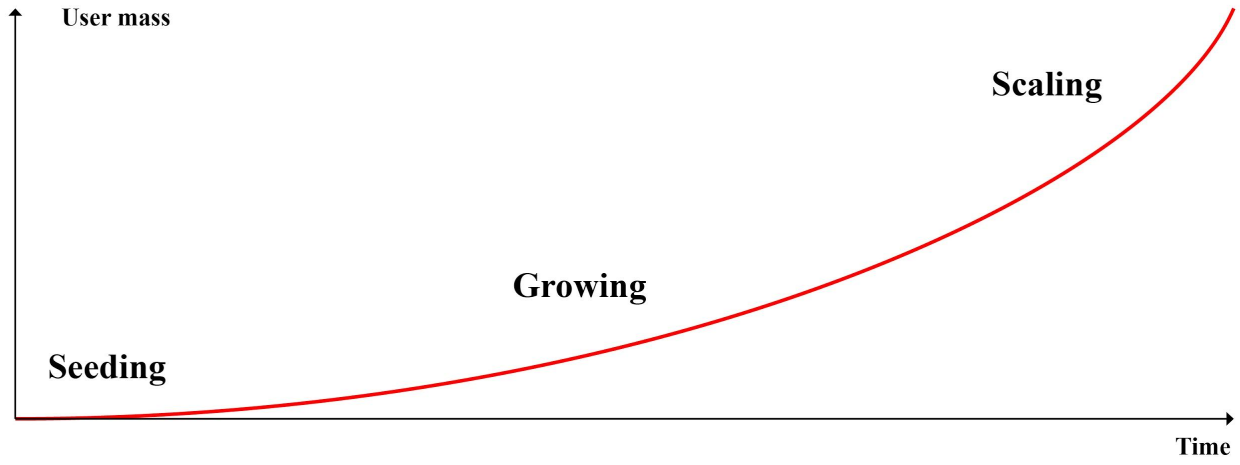

Figure 3.2: The Phase Model describes how a two-sided platform evolves through the three phases seeding, growing and scaling

3.5.1 Model Description

The Phase Model describes how a two-sided platform evolves through the three phases seeding, growing and scaling introduced by Wertz and Kingyens (2015). The phases are defined by user mass, not economical factors. First, we define the phases. Second, we describe their impact on

growth strategy for two-sided platforms. Third, we will look at critics and limitations of the model.

Seeding

Seeding is the phase where a company is seeding the two groups with the first participants to create network externalities (Wertz and Kingyens, 2015). What is considered most important in this phase is to incentivize participants to board the platform in a way, because there is little reason to board it without the presence of participants in the other group. Wertz and Kingyens (2015) argues that marketplace platforms should focus on bringing in sellers in the seeding phase, as they are more likely to see the potential value a platform can bring them than a buyer group.

Growing

Growing is the phase when the two groups have their first participants in place and network externalities is leading to growth towards critical mass (Wertz and Kingyens, 2015). What is considered most important in this phase is to fuel the growth by facilitating the value creation in a best possible way to maximize growth and eventually reach the critical mass constraint. As Evans and Schmalensee (2010) showed, if a platform never reaches the critical mass constraint, network externalities will drive a negative growth to zero participants.

Scaling

Scaling is the phase when growth have surpassed the critical mass constraint and therefore will scale until a stable equilibrium, like described by Evans and Schmalensee (2010).

The importance of this model is to understand how strategies affect growth differently in different phases. Something that might work in the seeding stage may act negatively on growth in the scaling phase. As an example, Airbnb took pictures of users listings to improve the information presented to possible travelers that wanted to book a place. This worked well in the seeding phase, but as the company grew they were not able to provide this for all users. But as users saw the quality other listings had they adopted to the same quality standards themselves.

3.5.2 Growth Strategy Impact

Diagnosing

The model can help strategists diagnose their growth challenges by analyzing which phase they are in. Airbnb seeded their platform by getting people that listed their apartments for rent on Craigslist, to list on Airbnb as well. This got them off the ground, but did not take them to critical mass.

Conceiving

By accepting that their platform had moved into a different phase, Airbnb made strategic changes. As mentioned before, they started to offer professional photography to their listers. This made the listings look a lot more welcoming and Airbnb was able to go from the seeding phase to the growth phase. In the seeding phase their users were typically early adopters not caring too much about the quality of the listings and apartments. To cross the chasm (Moore, 2001), Airbnb needed to take the quality to a higher level to satisfy the early majority. Now, Airbnb is definitely in the scaling phase, and have a lot more emphasis on governance than in the seeding and growing phase.

3.5.3 Critique and Limitations

Phase models are generally criticized by their attempt to describe market development in a linear fashion, when real life development is fuzzy. A model is by its definition a simplification of reality and can, even though not accurately, describe important factors, which can provide useful insight. There are no clear transitions in between the different phases, but the most important insights from this model is the fact that growth strategies affects differently along a platform's growth.

3.6 Summary of framework

Based upon literature presented in this paper, a framework for creating growth strategies for two-sided platform has been developed to better understand the nature of two-sided platforms. We have shown how strategist can use the framework together with the four steps of strategy creation (*identify*, *diagnose*, *conceive* and *realize*) to create growth strategies.

There is a lack of literature covering the differences in two-sided platforms with regards to involvement of various groups and how their relationship with each other affect choice of growth strategies. Two-sided platforms require strategists to think different than what general strategy literature suggests, as the value creation is different from what strategists are used to.

The framework can be used by strategists to *identify* the value creation within a two-sided platform. Hereby they can understand relationships between participants within the two-sided platforms. Continuing, the framework helps strategists *diagnose* the most important variables within two-sided platform and how they are related to each other to be able to create growth strategies. Further, *conceiving* new growth strategies is only possible by understanding the current context and then reframing it in a new way.

The paper is therefore a foundation for realizing growth strategies through concrete actions. The framework is an hypothesis and is subject for further research within the field of two-sided platforms. The framework will be used and tested in this study to see how the case company being studied can create growth strategies.

4. Methodology

In this chapter we will first present how the literature review was conducted, how the data was collected and reflections and critique of literature review. Secondly the research approach will be presented. Thirdly, the chosen research design, which is based on Saunders et al. (2012), that includes the research method which explains techniques and procedures used when conducting this study, and the selection process of case company and interviewees will be presented. Fourth, a presentation of the data collection process will be given. Fifth, the process of analyzing the data will be presented. Sixth, a reflection and evaluation of the case studies validity, reliability and generalisability will be given.

4.1 Literature Review

4.1.1 Purpose of Literature Review

The purpose of the literature review was to look deeper into the literature concerning two-sided platforms as this elucidates literature tied to our research question. The literature review was done

as a desktop analysis of secondary sources and didn't include any experimental research. To better get an overview of the research field we divided the focus on literature into three fields of interests, *two-sided platforms*, *growth strategies* and *network externalities*. It is to our understanding that dividing the research into fields of interest could better serve to answer the research question.

The literature review served as three means to answer the research question. First, it enlightened existing research within the field of study. Secondly, the literature review gives an understanding of what is missing within the literature based upon what prominent researchers points out. Third, the literature review creates an overview of existing literature and helped us realize what was missing. As Yin (2013) argues, the literature review's purpose is to develop sharper questions and more insights within the area of investigation. The literature review enabled creation of a framework for understanding and analyzing growth strategies for two-sided platforms as suggested by Walsham (1995). The framework is used to analyze and conceive growth strategies for the case company, Graphiq.

The method for literature acquisition and how it was conducted will now be presented.

4.1.2 Data Acquisition

The data is acquired through a structured search in Google Scholar on a specific search linked directly to the research question, and snowballing from there (Ang, 2014). The search was: "growth strategies two-sided markets". The search lead to 27 200 results of which the 50 first articles were screened as the search was sorted by relevance. Of these 50 articles, seven were picked out based on title and abstract: Appold and Kasarda (2011), Cusumano (2010), Eisenmann, Parker and Van Alstyne (2006), Eisenmann, Parker and Van Alstyne (2011), Gawer and Cusumano (2008), Sun and Tse (2007b), and Sun and Tse (2009).

As it was necessary to uncover new literature, the 30 first articles with the same search ("growth strategies two-sided markets") were screened, but sorted to only show articles from 2013-2015 in Google Scholar. From here two articles was picked out based on title and abstract: Bhargava, Kim and Sun (2013) and Muzellec, Ronteau and Lambkin (2015).

On recommendation by one supervisor at NTNU School of Entrepreneurship, relevant literature in a previous master's thesis written a year in advance was screened. One article that was not found in the Google Scholar search was used: Gallaugher and Wang (2002)

As the field of study is a somewhat new research field, working papers could contribute with new relevant information. We identified Van Alstyne, based upon citations and how other researchers mentioned his contribution to the field, as one of the most prominent researches. Thereby, an extra search on Google were conducted with the search: "Van Alstyne platform strategy" to uncover potential working papers. The search led to 28 800 results, where the 30 first were screened and one relevant working paper was picked based upon title and abstract: Parker and Van Alstyne (2014).

Based on these articles, snowballing was used to find further literature. Articles were picked out based on the relevance of title and abstract to the field of research, as well as the name of the authors and journals. The relevance of authors was based upon number of citations in the articles and to where the author was familiarized. In addition some researchers was often referred to as significant to the field. These are to our understanding Armstrong, Caillaud, Cusumano, Evans, Jullien, Parker, Rochet, Schmalensee, Sun, Tirole, Tse and Van Alstyne.

The papers are represented from a variety of journals and publicists such as: *Kenan Institute of Private Enterprise*, highly ranked business school; *Rand Journal of Economics*, highly ranked research paper; *MIT Sloan Management Review*, highly ranked research journal; *Strategic Management Journal*, highly ranked research journal; *Communication of the ACM*, internationally acknowledged premier magazine; *Production and Operations Management*, mid ranked research journal; *Journal of Management Studies*, mid ranked multidisciplinary journal publicist; *Industrial Marketing Management*, highly ranked journal; *Harvard Business Review*, highly ranked journal; *Review of Network Economics*, mid ranked research journal and a working paper. Rankings are obtained from ResearchGate, but as journal rankings have lately been criticized for inaccuracy and manipulation other methods have been used as well to assure that each paper have high quality and relevance to the research. Therefore, the relevance of each article according to content and its contribution to the field of study was also looked for.

The following articles were used based on snowballing: Armstrong (2006), Bhargava and Choudhary (2004), Boudreau and Hagiu (2009), Caillaud and Jullien (2001), Caillaud and Jullien (2003), Eisenmann, Parker and Van Alstyne (2011), Evans (2003), Evans (2012), Evans and Schmalensee (2010), Gallaugher and Wang (2002), Gawer and Henderson (2007), Gerstner (2002), Katz and Shapiro (1985), Nejmeh (1994), O'Reilly (2011), Parker and Van Alstyne (2000), Parker and Van Alstyne (2002), Parker and Van Alstyne (2014), Rochet and Tirole

(2003), Rohlfs (1974), Rysman (2004), Strahilevitz (2006), Suarez and Kirtley (2012), Sun (2007), Sun and Tse (2007a) and West (2003).

The snowballing method unfolded as in figure 4.1:

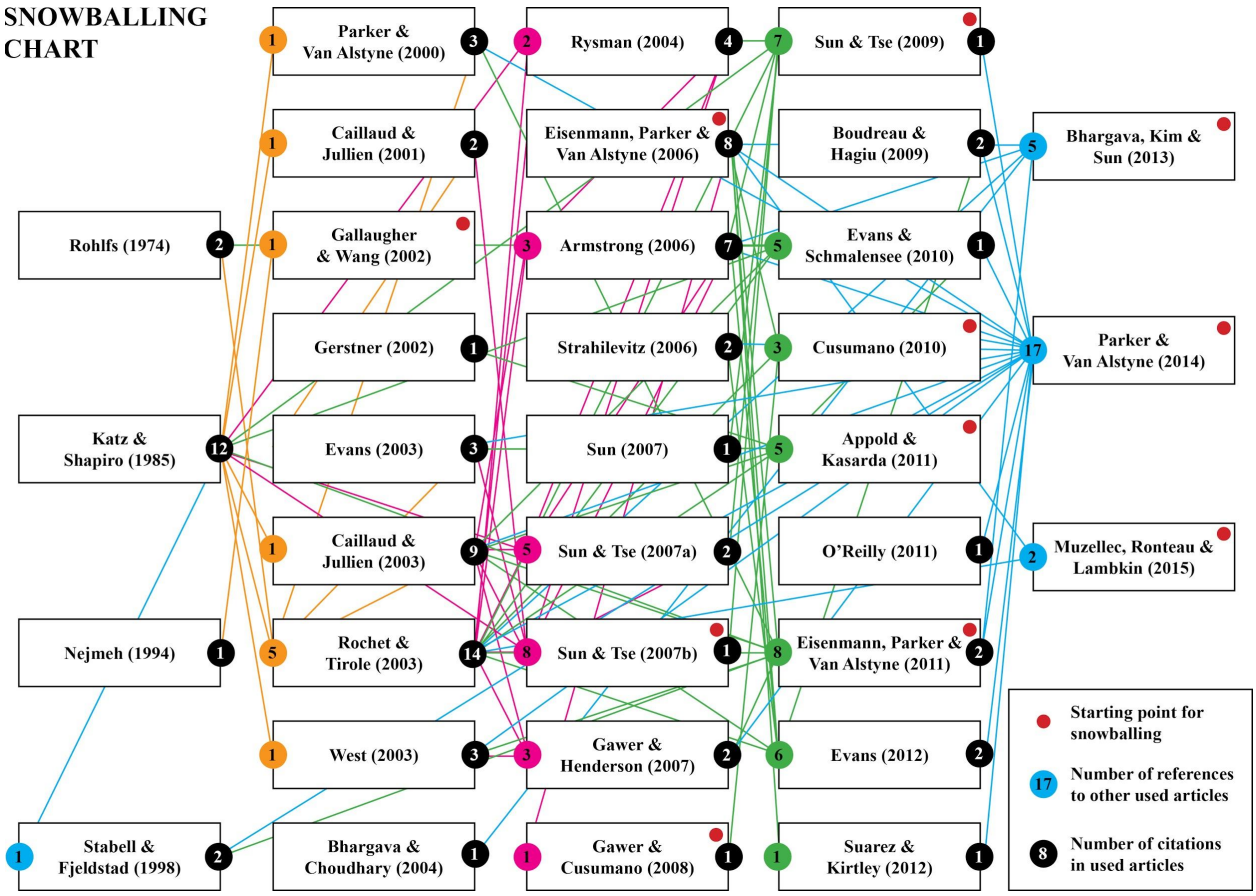

Figure 4.1: The Snowballing Chart shows citation connections of articles found by snowballing

The chart shows how the articles are connected by citations. The articles are organized by date from left (oldest) to right (newest) in the figure. If you start reading from the left, you get a sense of how the articles within this research field is built upon each other over time. If you read the chart from right to left the chart shows how articles were found by the snowballing method. The aforementioned starting articles are marked with a red dot. The number in the black circle at the right edge of each box shows the number of citations of the mentioned article in the other used articles. We can see that Katz and Shapiro (1985) with 12, and Rochet and Tirole (2003) with 14 are the most cited articles. The number in the colored circle at the left edge of each box shows the

number of references to other used articles. We see that Parker and Van Alstyne (2014) have the most references to other used articles (17).

We tried to contact Van Alstyne through our network as recommended by Ang (2014). He is considered a significant researcher within the field and is author of some of the most recent and important work. The request was if he could do a quality check of the reference list of this thesis and if he had access to any working papers of relevance. We did not succeed in getting in touch with Van Alstyne and thus the reference list has not been quality checked.

We are students at NTNU School of Entrepreneurship and founders of the case company *Graphiq*. Literature from other courses in the study program and through our work as entrepreneurs, which seemed relevant, has also been included in the research: De Wit and Meyer (2010), Mintzberg (1987), Moore (2001), Stabell and Fjeldstad (1998) (which was also found through snowballing) and Wertz and Kingyens (2015). In our work as entrepreneurs a lot of relevant information in the field of two-sided platforms has been acquired, but not in a structured data acquisition with regards to this specific research. This information is used in the thesis, especially when theory is understated with examples. This information is based on experience and subjective perception and might be biased and incorrect. The sources of this information are not proven and thus make the use of these examples open to critique.

4.1.3 Reflection and Critique

In this part, reflection and critique of the literature review is presented.

We have a pre-understanding of the area of research obtained from working with two startups in the field of two-sided platforms. Simultaneously we both have a keen interest for the topic and have been following news, companies often referred to in media and reading other information from time to time on the topic. Our pre-understanding might have colored our view on two-sided platforms and especially when it comes to examples presented throughout the paper as these are based upon information we have collected over time.

Starting off with data acquisition, we coined a search string that seemed most relevant to the research question. The search string might have lacked several important articles, especially as terminology might not have been uniform for this research field. This has been made up for by using methods to assure the quality of papers that were picked for literature review.

During snowballing relevant papers may have been missed. As the method reflect several different papers have cited the same papers and hereby framed it as a papers of high contribution to the field of study. It is therefore reasonable to assume that the literature review cover the most important papers within the area of research.

As the paper is written as our master thesis at NTNU School of Entrepreneurship during spring 2016, time constraint has been a limiting factor of the paper. With more time several papers could have been studied and especially within closely related fields such as traditional marketing theory and potential other growth strategies. With this said, the snowball method worked well as a mean to quickly get an overview of the field and it is to our understanding that the most important papers have been accounted for.

The area of research is fairly new and it has shown in papers as researchers use different words for same meaning. This reflects that the terminology is not necessarily established. An issue could be that some researchers use different words for the same meaning, and it could lead to missing research articles based upon different terminology. As an example a lot of researchers have used *network effects* and *network externalities* as the same meaning. As this could be the case for several other terms within the area of research, there is a possibility that some relevant papers have been left out without purpose.

As we are new to the field of academic research, lack of academic knowledge might limit this paper. The topic has not been followed for that long and therefore relevant information can have been missed.

4.2 Research Approach

There are typically two types of research approaches you can differentiate between, *inductive* and *deductive*, according to Saunders et al. (2012). When choosing an approach one must consider the amount of existing theory you are able to find on the topic. The *deductive* approach is most appropriately used when there exists established theory that creates a foundation for researchers to formulate new hypotheses that again can be tested by acquiring data. The deductive approach aims at findings causal relationships between concepts and variables.

If there is an extensive amount of existing theory on a research topic, it is most appropriate to select a deductive approach, where established theory is used as a foundation to formulate new hypotheses that are further tested using collected data. In this approach, the aim is

to find causal relations between concepts and variables. Saunders et al., (2012) argue that the best suitable approach when there exists little theory on a research topic is an *inductive* approach. Using the inductive approach researchers explore a phenomenon based on data collected, and on basis of this a theory or framework is built.

This study focuses on answering the research question "*How to create growth strategies for two-sided platforms?"* and based on existing academic papers a theoretical framework was developed as part of the literature review. The theoretical framework was developed as mean for the researchers to be able to answer the research question. While existing papers laid the basis for creating the framework, the researchers had to take an inductive approach to answer the research question. This was necessary as the topic of creating growth strategies for two-sided platforms is fairly new and there was a lack of theory on the topic. Therefore the researchers needed to work inductively to generate and analyze new data to draw new theoretical themes based upon the findings from the data as Saunder et al., (2012) suggests.

This study therefore combines a deductive and inductive approach as argued to be advantageous by Saunders et al. (2012) as the researches have exploited the limited theory and the empirical findings are explored.

4.3 Research Design

A research design can be thought of as the *blueprint* or plan for how to answer the research question and works as a guide for the researchers in the process of collecting, analyzing and interpreting data. As Yin (2014) argue, the research design should indicate what questions to study and its propositions, the unit of analysis, what data that are relevant and should be collected and how the researchers should analyze the findings.

As the research question in this study focus on *exploring* the topic of *growth strategies for two-sided platforms* one can say according to Yin (2014) that the study does not need any propositions. Exploratory studies seeks to ask questions and to assess phenomena in a new light and is useful when researchers need new insights as they lack a complete understanding regarding a problem, in this case the problem is *growth strategies for two-sided platforms*. Explanatory studies focus on situation with the goal of explaining its relationships between variable and is not the case in this study. Descriptive studies typically portray a situation, event or person and as a researcher you need a clear picture of the topic being studied which is neither the

cases here. As the researchers have focused on explaining and understanding how to create growth strategies, an exploratory study was found to be the best basis for this.

To answer the research question in a best possible manner a case study strategy have been taken as Yin (2014) argue has considerable ability to answer how-questions and as the researchers aim to enrich their understanding of the context. Based on this reasoning the strategy of choosing a case study is best aligned with the use of exploratory research.

As a case study approach was chosen the researchers saw the need to enable themselves of several types of evidence, interviews and case company data made available, and hereby employed a triangulation method. This enabled the researches to leverage multiple sources of data collection methods to improve and ensure consistency across different sources.

Yin (2014) differ between four type of case studies based on two different dimension: a holistic case vs. embedded case approach and single case vs. multiple case approach. A single case approach is typically used when there is a critical case or a unique case to study (Yin, 2014). A multiple case is chosen when there is a need to see if findings from the first case also occur in other cases (Yin, 2014). An holistic case approach is used when you study an organization as a whole while the embedded case approach is used when you also want to study sub units of the organization you have employed or are currently employed as your case (Yin, 2014). As the researchers are students and also founders of the case company Graphiq, they have chosen a single case approach with embedded cases as it was most natural to study Graphiq as a single case with customers and designers as embedded cases due to limited period of time the research was conducted. The reasoning for this decision is also supported by the fact that the researchers had the possibility to study a company and its customers and designers where they would be able to access excess company information being the founders. As the case company being studied is in an early phase of its development, the possibility to study such a single case with access to a broad base of information is something few have done before. Based on this the researchers saw the best fit was to adopt a single case study approach where Graphiq is the case and the customers and designers using Graphiq are the embedded cases.

4.3.1 Research Method

In business and management research one differ between the terms qualitative and quantitative methods for conducting research. The quantitative method focus on techniques that involve

questionnaires and statistical data collection methods which again can be analyzed to generate numerical data (Saunders et al. 2012). On the other hand, the qualitative method focus on collecting data by using techniques such as interviews and the data is typically analyzed by categorizing data and then generating non-numerical data (Saunders et al. 2012). As this study focus on using an inductive approach Saunders et al., (2012) argue that the study of a small sample are more beneficial than a large number. This favors a qualitative method for collecting data as this best fits the research design and will answer the research question. Also, as this study is a case study Saunders et al., (2012) argue researchers should use triangulation as a data collection technique to ensure that researchers understand the data the correct way and to make sure the data show consistency. The researchers of this study therefore define the study as a multi-method qualitative study where triangulation focus on leveraging a mix of qualitative data collection techniques.

In management research it is normal to distinguish between four major research philosophies, positivism, realism, interpretivism and pragmatism as presented by Saunders et al. (2012). The researchers argue that this is most suitable for this study as it opens up and enriches the understanding of the topic for investigation. This philosophy is also arguably highly appropriate according to Saunders et al., (2012) for situations with a complex business situation and where circumstances and individuals are matched at a specific time and affects the study, as is the case in this study.

Using case study as research method enables the researchers to explore multiple situations through detailed and thorough data collection leveraging and triangulating multiple sources of information (Saunders et al., 2012). As Yin (2042) suggests, case studies are a good fit when investigating questions such as “How?” and “Why?” and can also be used to test, confirm, challenge or extend theory and frameworks. Case study as method is often used when the researchers are not able to control the events that are analyzed and is typically used for exploratory studies which both are the case for this study. Case study is also a prefered research method when investigating contemporary phenomenon as suggested by Saunders et al., (2012) and *growth strategies for two-sided platforms* is said to be such a phenomenon. The above arguments justify the researchers choice of case study as research method in this study.

Based on the researchers available time, there was a need to choose between a cross-sectional and longitudinal time horizon. As Saunders et al. (2012) present, the longitudinal study

is commonly used for cases where a phenomenon is studied over a longer period of time and the researcher focus on development and change. The cross-sectional study is well suited when the researchers are investigating a phenomenon at a set time or a short period (Saunders et al., 2012). As the researchers in this study have conducted interviewees over a short time period based on a limited time scope of five months the study is categorized as a cross-sectional study.

4.3.2 Selection Process

In this section a presentation of how the case was found and a short description of the case company. Thereafter a description of how the interviews were selected is presented.

How the case was selected

To start of with this study focus on answering the research question *how to create growth strategies for two-sided platforms*. Graphiq was therefore selected as case company based on the research approach that highlights the researchers focus on a single case and whose identity have been known from the outset of the research which also is a common screening and selection method presented by Yin (2014). Yin argue that when choosing a single case study, researchers should chose the case that is most likely to yield the best data all other factors being equal. When evaluating different case companies it was clear to the researchers, that Graphiq was the company that would yield the best data as the researchers had direct insight being the founders of the company.

As presented by Saunders et al., (2012) they divide sampling techniques into probability sampling and non-probability sampling. Probability sampling is most commonly used for research with a strategy focusing on surveys. Non-probability on the other provides a several techniques that can be used when selecting samples. Sampling techniques include quota, purposive, snowball, self-selection or convenience/haphazard sampling. As the purposive sampling enables researchers to select cases that best possible answer the research question this sampling method was used. Additionally Saunders et al., (2012) states that this method works well when doing case studies and when the goal is to obtain as much information as possible. One can also argue that the haphazard sampling technique was used as data containing information on Graphiq was easily accessible for the researchers being the founders of the company.

Case Company Description

Graphiq is a two-sided platform connecting companies with freelance graphic designers. Customers with a graphic design need can come to the platform to hire a freelance graphic designer. The platform facilitate the matching, the communication between the designer and company during the project, and the payment after the project is done. 70-90% of the total payment goes to the designer, the rest goes to Graphiq. The percentage depends on the size of the project. See chapter 5 for a more thorough presentation of Graphiq.

How the interviewees were selected

To answer the research question the authors saw fit to interview customers and designers from Graphiq to uncover what would need to be done for them to use Graphiq frequently and recommend Graphiq to acquaintances. Selecting interviewees was done with the non-probability sampling technique (Saunders et al. 2016) and the interviewees, here customers and designers, were the unit of analysis. When the research was conducted, Graphiq had completed 25 design projects. The researchers reached out to all potential customers and designers that had used Graphiq's platform in connection with the 25 projects and asked to schedule an interview. Four customers and designers were available in the research period and were therefore selected for the study. Measures was done to improve the data obtained from the research, but as data saturation, meaning no additional data from interviews gave new insights, was reached it was not necessary to conduct further interviewees.

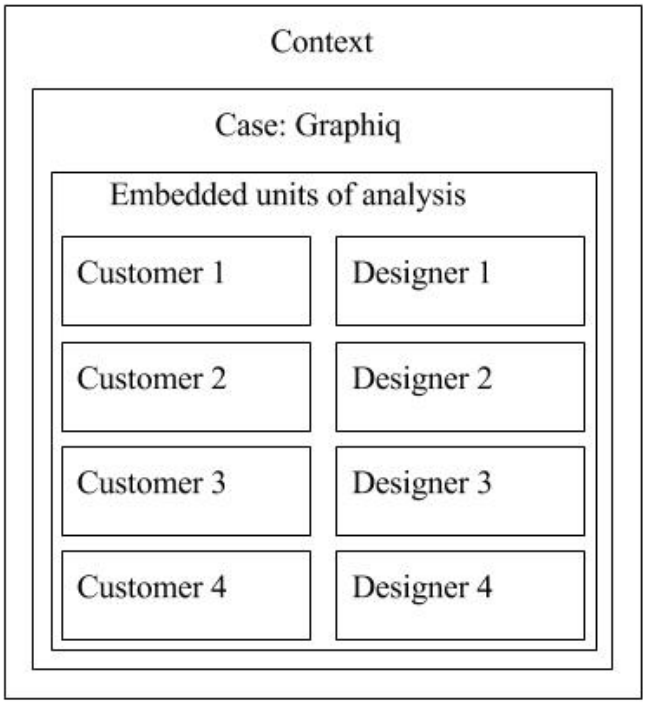

Figure 4.2: The eight embedded units of analysis in the single case Graphiq

4.4 Executing Data Collection

Yin highlights six sources of evidence that are often used in research with a case study approach: documentation, archival records, interviews, direct observations, participant-observation, and physical artifacts. Rothbauer (2008) recommends using a triangulation method as this can strengthen your research and results when different sources of evidence points to the same results. Yin (2014) also support this approach as the benefit of using a case study design compared to other studies that only use one data collection method, enables you to leverage several sources of evidence and combine them together. Based on this several evidence were used in in this study:

- Eight qualitative interviews were conducted with the different units of analysis (four customers and four designers of Graphiq)
- Documentation such as correspondence between customers and designers analyzed in this study made available electronically.

- Data archives such as organizational records showing the documented project design brief connected to each customer and designer analyzed. Also survey data showing the customers net promoter score collected after a project was completed were leverage.
- Physical artifacts ordered by the customers and created by designers during collaboration - the design file.

Several sources of evidence have been used to improve the accuracy of the research and are aimed at corroborating the findings. Using several sources of evidence also deals with the problem of construct validity. This approach have been chosen as it contributes to the researcher's ability to broaden the historical data. Use of multiple sources also develops a converging line of inquiry which is likely to be more convincing and accurate if it is based on various sources of evidence (Yin, 2014).

Data collected from the different sources of evidence have been stored in a case study database online and with access restriction to protect interviewees. The use of a case study database improves the reliability of the case study as stated by Yin (2014).

4.4.1 Interviews

Interviews are a mean for collecting valid and reliable data to support and answer a research question (Saunders et al. 2012). In this study the researchers choose to conduct a semi-structured interview as this creates basis for an in-depth interview which fits well with the studies research approach as it takes an exploratory approach. Additionally the semi-structured interview gives the opportunity to use probe questions when the researchers saw it necessary for the interviewees to explain or widen their answer (Saunders et al. 2012). The semi-structured interview is also beneficial when there exists little information with regard to the phenomenon being studied.

The researchers created an interview guide and questions were asked in a natural way to give the interviewee a safe environment. As the researchers went through the interview guide, questions were checked of to ensure that all questions were answered. This process made the interview flow smoothly and ensured that the researchers have an overview of all questions being asked. For the researchers this was important to create a personal contact when collecting the data as recommended by Saunders et al. (2012).

As the interviews conducted were semi-structured the data was analyzed qualitatively by the researchers and is also mentioned by Saunders et al. (2012) as an approach that fits well with an exploratory study. All interviews were done as non-standardized one to one interviews done over the internet using the voice and video conversation call software Skype and an additional software, Skype Call Recorder, to record each interviews as recommended by Yin (2014). As it was not possible to meet in person, the video function through Skype was used when possible to enrichen the conversation and make the interviewee feel safe. All interviews were recorded using the voice recorder tool.

Both researchers always participated during the interviews. One researcher had the leading interview role on all customer interviews while the other person had a passive role during the conversation. These roles were switched when interviewing the designers. The researchers who had the leading role was responsible for asking the questions from the interview guide, actively listening and ask follow up and probe questions as guided by Yin (2014). The other researchers who had the passive role was responsible for recording the conversations and taking notes. This approach of dividing the responsibility is beneficial according to Saunders et al. (2012) as the researchers improve their abilities to complete the tasks. Even though this is said, the researchers saw fit to change roles as one of the researchers have a better understanding for designers and the other a better understanding of the customer perspectives. Switching roles enabled the researchers to better create a comfortable feel for the interviewee as recommended by Saunders et al., (2012) and it was easier for the interviewer to follow up the interviewee when leading the discussion into areas where subject knowledge were beneficial.

The research questions were divided into general questions, reflection questions, probe questions and round-up questions. The general questions were used to warm up the subject and make them comfortable in the interview setting. After becoming familiarized with the setting the researchers went on to ask reflection questions focused on building the relevant data needed to answer the study's research questions. When see fit, the researchers used probe questions to make the interviewee widen their answer to enrichen the researchers understanding of the interviewees opinion. Finishing of, rounding up and practical questions were used to make the respondent clarify and make up for potential misunderstanding that might have occurred and also be able to add information if needed. Each interview were timed to approximately 45 minutes.

Measuring the quality of a semi-structured interview and the data produced all depends on the degree of reliability, generality and validity which we will discuss in section 4.5. Also forms of bias will need to be assessed, and Saunders et al., (2012) presents three biases, where the interviewer bias is one of them. The interviewer bias is when the behavior of the interviewer affects the interviewee's way of portraying themselves in a wrong manner and way of answering the questions. To overcome this bias, Saunders et al. (2012) suggest several measures that can be taken and the researchers have adapted to this and taken the following measures:

- Background information on each interviewee or unit of analysis were conducted to improve the pre-knowledge about the context.
- Information was communicated clearly by using e-mail before each interview. At the start of the interview communication was repeated and the structure of the interview was presented again. Each interviewee also received a calendar invitation to make sure they set aside appropriate time and to ensure they had access to a quiet room for good voice recording possibilities.
- The interviewees were responsible individually to find a suitable place for conducting the interview and were encouraged to find a quiet and relaxing place to feel comfortable.
- The researchers dressed according to the interviewee to mirror its appearance and make the respondent feel comfortable, but also important.
- Both written electronic notes and voice recorder was used during all interviews to ensure the data collected.
- During the interview, leading questions was avoided at all cost.
- As some respondents were more reserved, the passive researchers had a more active and supportive role of the interviewer leading the interview and asking the questions.
- The researchers kept a positive, calm and open behavior throughout the interviews.
- The interviewees all agreed not to be anonymized at the end of each interview. Although the researchers have found it necessary to anonymize the respondents due to company secrets.

4.4.2 Documentation: Project Correspondence

Documentation from project correspondence have have been used as a source of evidence to triangulate evidence as suggested by Yin (2014). Documents have been criticized for use as

literal recording of events that have taken place, as the chance for documents to be edited exists. Documents covering project correspondence from this study are obtained through the software Slack where all communication are available through a chat. The software also highlights messages that have been edited and this increase their accuracy. Prior to all interviews the project correspondence associated with the interviewee was collected through Slack and downloaded as a text file. The project correspondence was mainly used to build up under the interviews and augment other sources of evidence.

4.4.3 Data Archives: Project Design Briefs

To improve the triangulation of evidence archival data such as project design briefs was used to improve consistency across different sources of evidence. This data consists of the project design briefs created for each project where the interviewee has been involved. It is clear the project design briefs in this case study have mainly worked as a passive evidence to make cross references between evidence as recommended by Yin (2014). The researchers are aware that the design project briefs are mainly created as a contract between: the two-sided platform, Graphiq; the user groups, customers and designers and hence their purpose have mainly been to corroborate evidence as opposed to use as evidence to discover new findings.

4.4.4 Physical Artifacts: Design Files

As the two-sided platform being studied, Graphiq, creates basis for customers and designers to collaborate and create a physical artifact, an actual design file, the researchers saw this as a relevant evidence to use to corroborate findings from interviews. As an example it creates a better understanding of the customers perception of quality according to price.

4.4 Data Analysis

4.4.1 Data Analysis of Literature Review

During the literature review earlier presented in this study, data was acquired and created basis for proposing a theoretical framework to analyze growth strategies for two-sided platforms. To be able to create the theoretical framework, a thorough study on existing literature within the topic

of two-sided platforms were conducted. The theoretical framework created formed the basis to analyze growth strategies for two-sided platforms and were used in the case study.

4.4.2 Data Analysis of Empirical Data

After the interviews were finished the two researchers got together and replayed the recording of the interviews one time to make sure none of the findings could be misinterpreted. This enabled the researchers to discuss the interviews and the impressions and interpretation of potential findings. In situations where the researchers were unsure about their interpretation e-mail was to be sent, but this did not occur.

The next step were to transcribe the recordings which all the interviewees had agreed to. The transcription was done manually word for word to ensure high quality of the outcome. This is typically done with non-standardized qualitative interviews (Saunders et al. 2012) which is the case for this study. Each transcription was done within three days of the actual interview to ensure that the pile of interviews that needed to be transcribed didn't build up. The transcription was corrected by the other researcher (not the transforming writer) to ensure accurate and correct transcription which is often referred to as data cleaning (Saunders et al. 2012). Each transcription was saved as a single word-processed file to be analyzed. Also a short summary containing the key points from the transcription was added to the file. Further on the researchers categorized the data into topics connected to the reflection and probe questions and was derived from terms that emerged from the data as Saunders et al., (2012) suggest as an approach. The researchers choose a manual approach to unitize the data as this did not require the learning of new software. The manual analyzing process started out with labeling the data from each transcription. Thereafter data was copied to a new data card or text-file and cut up to essential related piles of data. All data copied from the original transcription was labeled to ensure its origin. This process helped the researchers to reduce the amount of data and rearrange it accordingly to best possible answer the research question as suggested by Saunders et al. (2012).

The researchers have taken an analytic induction approach where they examine they examine the cases to be able to establish empirically reasoning for the creation of growth strategies for two-sided platforms as proposed by Saunders et al. (2012). The analysis started out with a less defined explanation of how to create growth strategies and a framework were then proposed and tested to see how growth strategies could be created. The creation of the framework

from the literature review enabled the researchers to narrow their scope as suggested by Saunders et al. (2012). Using an analytic inductive and incremental approach to collect and analyze the qualitative data is recommended by Saunders et al. (2012) to improve the researcher's ability to establish well-grounded explanations, and is suitable with an exploratory approach that is the case for this study.

The analytic induction approach have been criticized as it seeks to create explanations where a phenomenon occurs and it is likely that there are other cases with the same conditions where the phenomenon not necessarily would occur. To cope with this challenge, researchers typically research a range of cases, but as the researchers are limited in time this has not been an opportunity as pointed out by Saunders et al. (2012). This said, the researchers pave the way for others to conduct similar case studies where the same conditions apply.

4.5 Reflection and Evaluation of Method

The research method and data collected will be dependent on external factors that might affect the respondents and the information gathers. In this chapter we discuss the validity and reliability of the study with focus on assessing the quality of the results produced in this thesis (Yin, 2014). Further on a discussion with regards to the generalisability of the findings will be presented as Saunders et al., (2012) argue is an important factor in single case studies.

4.5.1 Construct Validity

Case studies have often been criticized for collecting data based on subjective judgments that affects the construct validity of the study (Yin, 2014). Therefore a measure taken in this study to overcome this challenge was to use multiple sources of evidence. Using several sources of evidence one can corroborate the findings and show to the same facts and findings that increase the validity of the data (Yin, 2014). The researchers have also created basis for a chain of evidence by documenting their data in an online database with access restriction that improves the construct validity (Saunders et al. 2014).

4.5.2 External validity

External validity deals with the possibility of generalizing a studies result beyond the case being studied. To say it simply, will other managers be able to use the same strategies to grow a two-

sided platform. A challenge with case studies is the ability to replicate potential findings as there is one company being studied with embedded cases. There are arguments within qualitative research that generalization is necessary, but that is has to be differentiated (Mayring, 2007). As case studies rely on analysis of data collected and existing theory within the field of study, there is no universal way to conclude and generalize results found. The researchers have continuously throughout the study looked for other explanations than the once arrived at, and this way improved the reasoning for well-grounded conclusions as recommended by Saunders et al. (2012). To further improve the external validity one could strengthen the findings by continue testing these findings on three to ten other single case studies as Mayring (2007) presents, but as the researchers have been limited by time this has not been possible. Anyhow, this creates an opportunity for future aspiring researchers to test findings from this study in future research on growth strategies for two-sided platforms.

As a framework was developed to analyze growth strategies for two-sided platforms, this improves the ability to replicate the study or use it on other case studies (Yin, 2014). The framework presented states the conditions for two-sided platforms and accordingly strategies that exists in current literature.

4.5.3 Reliability

Reliability addresses the consistency of a procedure with the goal of limiting the potential errors and biases (Yin, 2014). If the procedure is repeated, another researcher should arrive at the same conclusions if the same case is used. As the method for this study is thoroughly described other researchers can repeat the study. A limiting factor on the other hand is the nature of interviews that were conducted with semi-structured interviews where additional questions such as probe questions was asked outside of the interview guide and therefore can be hard to replicate. Even though, reliability deals with the potential to repeat the method, and not if the findings are directly repeated. Therefore the researchers of this study argue that the method is thoroughly described and hence should be repeatable by another researcher.

During the interviews Skype was used together with a voice recorder to conduct the interviews. Therefore the interviews was done over the Internet and not face-to-face. As the researchers also are the founders of the case company Graphiq, they have had previous contact with all the interviewees unrelated to this study. This created a connection where the peers

already had some familiarization with each other. This can be said to minimize the difference from meeting in person and the relationship might have been advantageous for the researchers compared to an unknown researchers conducting the interviews.

As Opdenakker (2006) argue, conducting face-to-face interviews enables the interviewers to note and analyze social cues. As interviews were conducted online, the researchers in this study leveraged the use of web camera that improved the opportunity to note and analyze social cues.

It is worth noting that as quotes from the interviews have been translated from Norwegian to English, this might have weakened the credibility of the data. The translation was much needed to make sure the quotes made sense for readers.

The researchers have leveraged the creation of a case study database to improve the study's reliability. Such a database enables other researchers to look through and assess evidence themselves (Yin, 2014). The database consists of relevant material from the four sources of evidence. The database is organized and categorized according to requirements presented by Yin (2014). As Yin (2014) further argues, the report itself should provide enough information for readers to draw their own conclusions and hence the researchers have not made the database publicly accessible. As a mean to further trigger future investigation, the researchers make themselves available for potential future researchers that are interested in exploring the database.

4.5.4 Generalisability

Using a single case study method where researchers conduct qualitative semi-structured interviews have been criticized for creating data quality issues (Yin, 2014). As Saunders et al. (2012) argue, a well-completed case study can be relevant in other contexts than the field of study. Based on this one can argue that the research might be found interesting for other contexts. As an example, the researchers know there exists three-sided platforms that in some ways relates to two-sided platforms, but they are more complicated. As there exists similarities between these platforms, findings and conclusion might be of interest in a three-sided platform context where one is investigating growth strategies.

As it is up to the researchers to establish relationships between existing theory and the research question being studies (Saunders et al. 2012) this will affect the generalisability of the findings. In this paper the researchers created a theoretical framework well rooted within existing

literature on the topic. Based on this one can argue that the findings have a broader significance than just growth strategies for the two sided platform being studied. One can argue that the findings might be applicable for other two-sided platforms that also deliver *services* in a *B2B-market* according to The Platform Type Matrix. This could be further validated by conducting more studies on similar cases as presented by Mayring (2007), but as the research have been limited by time this was not possible.

5. Case Company Presentation

5.1 Company Description

Graphiq was established by Jakob Palmers and Erik Sandsmark, December 7th 2015. Graphiq is a two-sided web platform connecting customers with freelance graphic designers. This makes it a B2B service platform according to The Platform Type Matrix.

	P2P	B2B	B2C
Products			
Services		**Graphiq**	
Assets			

Table 5.1: Showing Graphiq in The Platform Type Matrix as a B2B service platform.

The service works as follows: The customers describe their graphic design need. Based on the need Graphiq recommends a couple of suitable designers from their database. The customers get to choose one of them based on their portfolio and references. When the matching is done, the customer and designer collaborate directly through a communication tool called Slack. There they can chat and share files. The customer is invoiced the predetermined project price after the project is completed. The payment is shared by Graphiq and the designer; 10-30% goes to Graphiq and the rest to the designer. The transaction fee is higher for smaller projects and lower for bigger projects. Figure 5.1 shows how Graphiq works in light of The Platform Model.

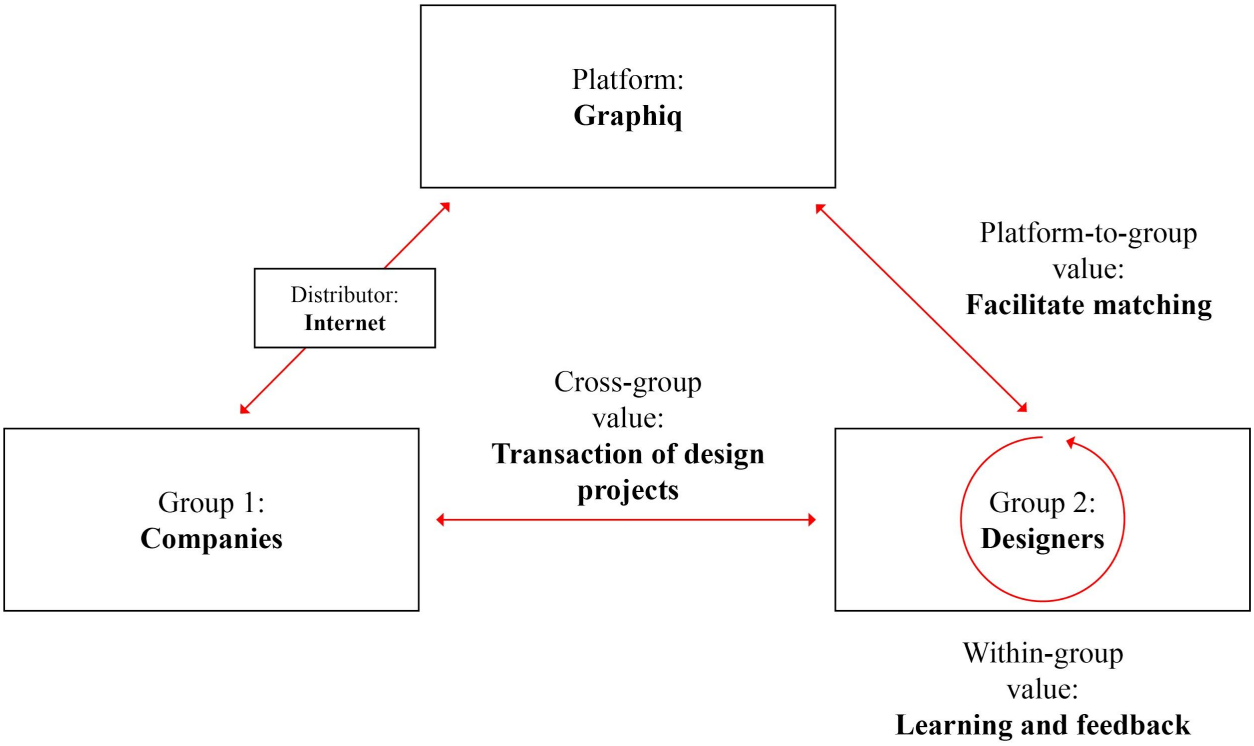

Figure 5.1: Explaining value creation on the two-sided platform Graphiq by using The Platform Model.

Graphiq is considered to be in the seeding phase according to the Phase Model, due to its recent establishment and low quantity of users. The Graphiq organization consists of its two founders. There are done about 60 design projects through the platform from about 40 customers with revenues of $33.000 at the time this thesis is written.

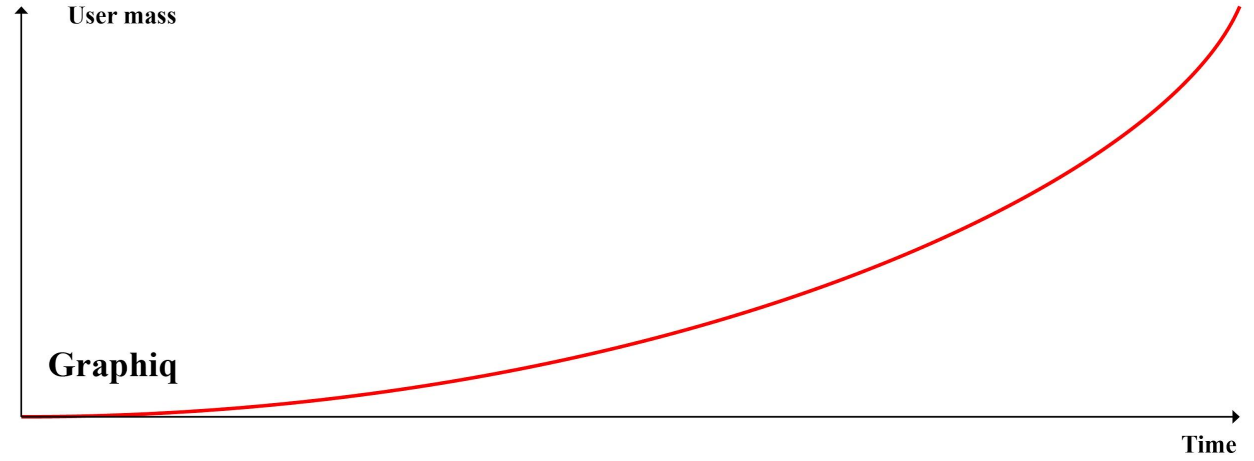

Figure 5.2: Showing that Graphiq is in the seeding phase due to its low quantity of users.

5.2 Business Model and Competition Analysis

Graphiq offers the same main value as classic design agencies. The difference is that the two-sided platform model means that Graphiq does not employ the designers as agencies do. This removes overhead costs associated with having employees, and Graphiq can therefore charge less for design services and scale faster compared to an agency model. Much the same way as Uber offers transport services like traditional taxi companies, but the platform model enables them to offer the service cheaper and at bigger scale.

In addition, the platform model enables Graphiq to start design projects faster than agencies. This is because when you give a customer access to a pool of service providers, the chance of one being available right now is much bigger than with a traditional agency model. This is the basis for so-called on demand platforms (Colby & Bell, 2016).

There exists several other two-sided web platform connecting customers with freelance graphic designers, the most prominent being UpWork (UpWork, 2016). There are two main differentiation points from UpWork to Graphiq. The first is that UpWork is a vertically differentiated service platform, offering services all the way from graphic design to sales and marketing (UpWork, 2016). Graphiq focus on the sole vertical that is graphic design. The second differentiation point is that UpWork is a platform open to virtually everyone that wants to offer a service, and the platform itself does not take an active role in the matchmaking. Graphiq on the other hand is a so-called *managed marketplace* (Wertz and Kingyens, 2015), being restrictive of which service providers (designers) they give access to the platform and taking an active role in the matchmaking process. We can say that UpWork delivers cross-group value through quantity, where Graphiq focus on quality by offering high platform-to-group value.

The existence of several two-sided design platforms means that many of Graphiq's users tend to multi-home, use several design platforms simultaneously and not only one. Designers multi-home because it increases their chance of getting work, and customers multi-home typically because their needs differ from project to project and every platform offers a differentiation that fulfills their need somehow.

To sum this up, Graphiq's main value propositions are: quality design, fast process and cheaper than agencies. The quality and fast process is provided by having a managed platform (high platform-to-group value), and being cheaper than agencies is possible due to the nature of platform business models.

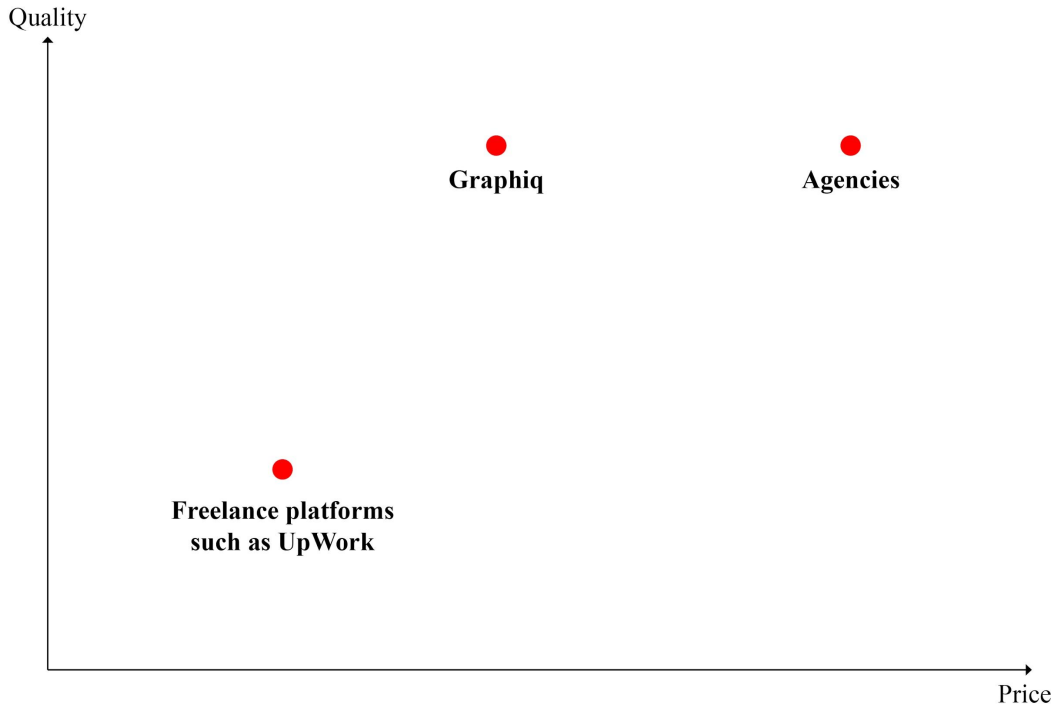

Figure 5.3: Showing Graphiq's desirable position in the competition landscape along with design agencies and existing freelance platforms such as UpWork.

6. Findings

The findings section is built up after the probe questions in the research: matching, pricing, payment, communication, knowledge, availability and delivery. Under each section there are customer findings, designer findings and a short summary. Findings are focused on highlighting customers and designers desire for how they wish Graphiq should work.

6.1 Matching

6.1.1 How It Works Today

Graphiq's matching process currently works as follows: A customer comes to Graphiq with a design need. Mainly through the web page, but in some cases directly through mail, Facebook or other medium. After some dialog between the customer and a Graphiq representative they make a

design brief in collaboration. Based on the brief the Graphiq representative recommends typically two designers from the database to the customer. Based on the designers portfolio, references and in some cases a video meeting the customer choose the designer he/she wants to hire for the task.

6.1.2 Customers

Customers want to see portfolios

One of the most prominent findings is that the customers want to choose their own designer, not just get one assigned. They want to choose based on their portfolio and references. One informant did not get to choose a designer for his project, but just got one assigned. The informant did not comment on this until the project was completed and he then uttered with a degree of dissatisfaction: “It was not possible to see the designers portfolio, therefore I am unsure of the quality of the designers”.

Another factor with regards to choosing their own designer is whether the customer feels ownership to the design. An informant commented that they are more positively tuned to the project if they chose the designer themselves, and could likewise be more skeptical if they did not. As the quality of design is judged both on feelings and logic, this factor could affect whether the customer are satisfied with the result or not. Seeing portfolios and references also builds trust to the designer on beforehand. The prominent finding is that the customers want to be confident when choosing a designer and there is need to build trust between the customers and the designers.

The most suitable supply

Another finding was that although the customers wanted to choose their designer, they did not need a big quantum to choose from: “It could be like a funnel, with some criteria narrowing it down to, let’s say 10 designers.” Having too many options slows down the process, and they don’t want to see designers that are not relevant for their specific projects. Customers trust Graphiq to find the most suitable designers available. Narrowing criteria mentioned by the customers was price, availability and field of design. That being said, the customers saw value in having access to many different designers in the database, but mostly because they may have different needs from time to time. They wanted Graphiq to be one point of contact to many

different designers for different needs: “There is a transaction cost in searching for new designers, so it would be great if I could go to the same place when I need a new designer”.

Fast matching

Another important factor for customers was Graphiq’s ability to connect them with a designer fast. Often customers have projects that need to be turned over within one or two days. In these situations the need to choose between different designers seemed subdominant compared to the importance of getting someone to do the project. And these projects were typically production work where the customer only needed a designer to make it look good and not necessarily very creative. This indicates that the expectations to the quality are lowered when time is short. An informant expressed: “I trust Graphiq to connect me with a good enough designer”.

Experienced vs. inexperienced purchasers

Some customers categorize themselves as bad design purchasers as they don’t possess the right terminology and knowledge of design to be able to find what they are looking for. Some customers acknowledged that when they need projects done, they don’t necessarily know what they should look for in a designer: “It’s hard to know what a good designer is”. Here we see a distinction between two different customers; educated and experienced design purchasers and inexperienced design purchasers. The first one have typically higher expectations to the quality of the designers, where the latter are more concerned about just getting matched with a designer.

Nurture relationships

Customers that work with a designer they are satisfied with and establish a relationship to, they usually want to keep working with them: “It’s frightening working with a new designer. You never know what you get.” Some customers expressed that in cases where they continue the collaboration with the designer, it would not be natural for Graphiq to take a cut of the new project. In other cases the customer has reached out to Graphiq with a new design project and requested the same designer, instead of going to the designer directly. This indicates that the customer see some value in staying on the platform. Exactly what value that kept them on the platform in this case is not accounted for. Some has also expressed the value in changing designer from project to project, either because they want a change in style, or because they need a

specialist in another field: “With one designer it can become a bit one-sided, you lock yourself in a box”.

Transparent pricing

There is an evident variety in knowledge about what different design projects cost. Some customers, typically in the consultancy industry are used to fairly high hourly rates while other less experienced purchasers are less experienced. Based on this, customers expressed a need to see prices for previously completed projects to easier make decisions on whether they want to use Graphiq or not.

This point is closely related to the difference between experienced and inexperienced purchasers, where the experienced have a clearer idea of what design costs, where the inexperienced typically underestimates what a design project cost.

6.1.3 Designers

Clear design brief and quote

Designers see a great value in getting projects served without having to do sales and marketing themselves. Further they find it great if the projects have a clear defined project brief and scope: “I was very impressed that all the files and the brief was so clearly defined. It was just for me to start on the design without further introduction.”

Want closed deals

For one project a couple of designers made drafts on request from the customer as the customer wanted to choose based on the draft. The designers uttered dissatisfaction with doing work without the guarantee of getting the project and being compensated for the work. There is a clear tendency that ideally the designers want the project clearly briefed and guaranteed when it is offered. Further they see a great value if the project has a clearly defined quote, compared to if they need to set the quote themselves. To some, quoting is difficult, to others it falls into the category of doing work without getting paid. This quote sums it up well: “The reason why I think the service works great is the simplicity. If I had to argue and sell myself, change my price to compete with other designers, I don’t know if I would have used it.” This being said, most of them expressed an understanding that the customers want to choose between a couple of

designers, and that in some cases they would have to do a bit work like making a quote or talk to a customer without the guarantee of a project.

6.1.4 Summary

The findings show that there are typically two customer types within the customer group: One customer type that need a lot of information and want to qualify the designer themselves before starting to work together (the experienced purchaser). And the other customer type who trusts Graphiq's ability to find a suitable designer for them based on their design brief (the inexperienced purchaser). To meet the demands for the first customer group, Graphiq has to emphasize quality designers and a service that facilitate a process where the customer get to choose their designer. To meet the demand for the latter group, Graphiq should emphasize a fast and trustworthy matching process, but finding correct and quality matches is not necessarily that important. The first approach is the one more aligned with Graphiq's overall strategy of delivering quality design.

The designers see a great value in clear project briefs so the amount of administrative work is minimized. The first customer group is the one who typically provide the clearest briefs, where the latter group is more unclear and need help from Graphiq or a designer to create a clear brief.

6.2 Pricing and Transaction Fee

6.2.1 Intro

Pricing in a two-sided platform is affected by both user groups of the platform and the challenge is to implement a pricing strategy that is suitable for both sides. The platform owner can determine the price by using strategies to take a position in the market. As an example high quality-high price, low quality-low price and others. A lot of two-sided platforms have a revenue model where a transaction fee is applied to each purchase. In the following section we will look at the findings when it comes to pricing for Graphiq's platform based on feedback from customers and designer. We will also present findings regarding the transaction fee or "cut".

6.2.2 Customers

The customer group's willingness to pay will be determined by all factors influencing the purchase. In a traditional business model the company can determine the price themselves, as it is not directly affected from another group, hence the price is easier to set. In a two-sided platform on the other hand, the price will be affected by the amount of value the platform are able to deliver together with the value offered by the other user group, in Graphiq's example the designer group.

Willingness to pay

Findings highlights that many of Graphiq's customers have a need for high quality design delivered to an affordable price. In other words, the lower the price, the better, but it must not be at the expense of the quality. Additionally customers value high turnover speed as there are few solutions today where you can receive help to turnover smaller projects within a day or two. As this is of high value for customers, a service providing this availability with high speed and good quality can charge more than other existing solutions.

As design has many disciplines there is a variety of needs that Graphiq's customers have. Everything from designing presentations to creating new visual identities for companies, the skill level needed for each task is varied. Based on this, customers are willing to pay more for creative than production services. These findings were evident for several customers, especially those with previous purchasing experience, as they understand the difference between simple production design work and creative design work. It is important to understand that the customer's willingness to pay will vary between large corporations and startups. The willingness to pay is typically determined by the customer's expectation on what they will receive. Many large corporates expect design to be original, where startups in an early-stage are more concerned about paying a lower price for something that works and thus they have lower expectation when they pay less.

Size of transaction fee

Findings show that customers do not care too much what size the transaction fee is. Customers interviewed expect the transaction fee to be between 5-30% based on different projects. Most customers thinks a fee between 20-30% is fair, but says it all comes down to how much value

Graphiq are able to provide to each user group, customers and designers. Some customers mention that if Graphiq applied a too high transaction fee they could imagine to find their own freelance designer to limit the cost from using Graphiq.

Limit transaction fee transparency

From the interviews it has been clear that most customers haven't thought too much about how large the transaction fee is. This is also reflected by one customer who thinks Graphiq should not be too transparent about the transaction fee as the customer mostly cares about the price for the project. The customer also mentions that it is first when the transaction fee is brought up for discussion they really reflect upon the cost of using Graphiq as a service. This is an interesting finding as many two-sided platform differentiate the cut from other platforms and hereby is an important factor to consider when attracting new users in a two-sided platform

6.2.3 Designers

The supply group (designers) of Graphiq's platform have their expectations on price or payout for assignments delivered. This is influenced by their experience, competence, availability, communication abilities and industry knowledge. For the designers the value delivered by Graphiq will determine how large the transaction fee can be. The more value Graphiq delivers, the higher transaction fee Graphiq can apply.

Designer payout differs between small and large projects

Designers interviewed in our study are motivated by payment and feel that higher payment equals higher quality for the customer. The designers also categorize projects into two sectors. The first are projects that are quick and easy fixes with short deadlines. These projects are often done for the economical benefits, as they rarely are very challenging or creative. The second type of projects are larger design projects that stretches over time. These are often more challenging and interesting and some designers are willing to take on these types of projects with lower payment.

Offer designers both hourly rate and project price

Information collected in interviews have shown that designers are willing to both work based on an hourly rate, but also for a fixed project price. Designers also highlight the possibility to work

for a fixed price over a set time, in example a period over two months. In these cases it would be more favorable to agree to a monthly payment for the designer.

Size of transaction fee

The transaction fee Graphiq can apply is determined by the value the platform delivers to the designers. The designers feel that there is large value in the work Graphiq does with sorting out the design brief, creating contracts, matching the designers with suitable projects, negotiating payment and invoicing the customer. A lot of this value is delivered in the beginning and end of a design project. As Graphiq currently doesn't deliver a lot of value during a project, the findings seems to point in a direction where the cut Graphiq can apply is larger for smaller projects than it is for long lasting large projects.

The projects completed through Graphiq have had a transaction fee from 15-30%. Findings show that the cut may be consistent for all design projects, but Graphiq should then be aware of the potential risk for customers and designers to collaborate outside the platform which is a risk all two-sided platforms face. Understanding how to set the cut and what size the transaction fee should be is highly necessary for all two-sided platforms.

Adjustable transaction fee

Looking at different projects, one designer mentions that if a customer is a returning purchaser the designer feels that the transaction fee needs to be lowered. This is due to the fact that the designer creates the relationship with the customer and delivers enough value to convince the customer to come back. Another designer that worked on a project with a 10% transaction fee feels this is not very greedy.

6.2.4 Summary

Based on the findings it has come clear that the customers and designers interests in many ways can be combined. Customers are willing to pay a reasonable amount for high quality design and more for projects that needs to be turned around quickly. Designers are interested in both projects, but the projects that need quick turnaround are typically done for the economical benefit. Customers and designers both want the possibility to work with an hourly rate and a project price. Most importantly, customers want price transparency to easier make decision. Both

groups are positive to the transaction fee that Graphiq applies, but it should be adjustable for different projects. These findings are relevant for Graphiq as a two-sided platform as Graphiq try to bridge two user groups and create cross-group value, and also provide enough platform-to-group value that enables Graphiq to monetize on the transactions made.

6.3 Payment and Contracts

6.3.1 How It Works Today

Graphiq is currently taking responsibility for creating design briefs and contracts with both user groups of the platform. Graphiq invoice customers after projects are completed or invoice customers monthly based upon hourly rates specified in contracts with customers. The designers invoice Graphiq after they have completed their assignments. In the following the findings from the research will be presented to help analyze the role of payment and contracts within Graphiq's two-sided platform.

6.3.2 Customers

Contracts

Customers feel that in most cases contracts are not necessary, but contracts gives a form of security in case a dispute would occur. For smaller projects, dialogue on the phone, chat or e-mail is for most customers sufficient, but even though customers would prefer to have some standard terms of use that creates the basis for all projects. For larger projects it is more important for customers to have a contract to help in situations where there are changes in the design brief or when there is a dispute between the customer and the designer.

Pre-qualified designers

Findings from the research show that customers are very concerned about the quality assurance of the designers. For the customers it is important that all design delivered is without any infringement towards other design material or IP and free of plagiarism. Also, customers expect that all designers working through Graphiq's platform are paying taxes, VAT and that the ownership of design work is clearly evident. Also, the designers working through the platform must be subject to legal and reasonable terms.

One of the most important factors with contracts is that it gives customers security and assurance of the quality delivered and at the same time it gives a feel of professionalism. This security seems to be most important for both customers and designers for larger projects where the likelihood for a dispute to occur is higher than it is for smaller projects.

Payment and invoicing

Most customers prefer a traditional invoice, but are open to use other solutions to pay for the design work. If other solutions are used the customer must be able to receive a receipt. Most importantly, the invoice need to work with existing accounting systems. One customer highlights the importance of creating an invoice friendly payment system. Large companies are typically negative to handle too many small invoices. A solution here could be to bundle monthly invoices, have a monthly retainer or issue design credits that large companies could use. These measures would create larger platform-to-group value and would limit the amount of small invoices.

For customers it is important that following the invoice there is a specification of the design project that is completed. This is both for internal use, but for some customers that delivers design work for their own customers it is mandatory. Especially when working with public organizations. For a two-sided platform such as Graphiq this is highly relevant as it is necessary for Graphiq to provide enough platform to group value that will entice customers to use the platform.

6.3.3 Designers

Contracts

Designers highly value the pre-work Graphiq delivers today by creating design briefs and contracts for designers. Most graphic designers that works freelance spend a lot of time on activities that are not directly value creating, in other words activities such as contracts, invoicing, payments, negotiating etc. The designers like to focus on designing. The designers also explain this value by comparing Graphiq with other sources where they can receive design assignments. When they use Graphiq it is always clear what the project is, the payment and when it should be delivered. This let’s the designers jump straight to designing without the need of any pre negotiation or arrangements.

Trust in Graphiq

The designers trust working through Graphiq more than directly with customers as Graphiq feels like a professional organization who knows what they are doing. The designers prefer to have this security working through Graphiq compared to receive work from other unprofessional sources or creating contracts themselves.

Project changes

Most designers are prepared to work a couple of hours longer than specified in the contract as they take pride in delivering quality projects. But it's important for the designers that the contracts regulate situations where the expected workload go beyond the design brief and how these situations should be handled.

Payment and invoicing

Many freelance designers currently have their own systems for invoicing, doing accounts and other administrative work. Designers that have existing systems prefer to follow their usual work pattern with these administrative activities. Designers who haven't done a lot of freelance work would prefer someone to handle all the administrative work as they doesn't know how it works. "I think it is a bit cumbersome, personally I actually hate that sole proprietorship business. It is all this with the TAX and all that shit, and I need to consider those things. I hate it. Soooo, I would have preferred that there was another way to do it." - Designer.

6.3.4 Summary

Findings show that both customers and designer value that Graphiq provides the design brief and contract for projects. For customers it is really important that all the designers behave according to local legislation. As many designers hate doing accounts work and calculate VAT and tax, this can be a challenge for Graphiq as it will be hard to keep an overview of designers and see if they comply with the rules. For both customers and designers it is important that changes in projects are determined in a contract or terms of use. For customers it is important that invoicing is done the traditional way and can be integrated with existing systems. For designers it is more flexible as some designers have their own systems, while others would prefer someone to take care of everything for them

6.4 Communication

6.4.1 How It Works Today

Today Graphiq provides a communication portal called Slack where customers and designers can collaborate. Through Slack, Graphiq's users can share drafts, sketches, design files, give each other feedback and chat easily with each other. The communication tool also enables Graphiq to have full insight in all projects and Graphiq can therefore both assist the customer and the designer when needed. Now we will present the findings from our interviews with existing users of the Graphiq platform to create a basis for analyzing their needs.

6.4.2 Customers

Kick-off video meeting

Most customers working with external partners prefer to have an initial meeting or video call to establish the collaboration and brief the partner on the work that needs to be done. Customers would prefer to be able to start a video conversation directly through Graphiq's communication tool. This will enable the customer to brief the designer about the company and the project. After the two parties have worked together for one or more projects, the need to brief each other will be reduced. As the two parties get to know each other, the need for briefing all comes down to the complexity of the project.

Screen and sketch sharing

Customers also mention that in an initial video conversation the possibility to share screen or a drawing board where they could create fast sketches would be of benefit. This would help bring both the customer and the designer to the same understanding of the project quickly, and would give the designer some early feedback to kick start the design work in the right direction. One customer raises a challenge with video and phone conversation related to the verifiability of agreements made during conversations.

Slack as communication tool

Customers that have used Graphiq have predominantly been satisfied with using Slack as a communication tool. Feedback from customers show that the communication have been swift

with fast replies and good progress in the projects. Customers are also satisfied with the possibility to access all design files directly from Slack. One customer mentioned the need to have a better overview of design projects if they would run multiple design projects.

Urgent communication opportunities

One of the benefits using Slack is the possibility to communicate quickly with the designer. Some customers have had a problem receiving notifications which have delayed some of the design projects. The customer would prefer to have the possibility to adjust notification settings to make sure they receive all notifications. Based on this problem, some customers saw the need to be able to communicate on SMS or phone in case of urgent situations.

File hosting

Some customers saw the need to have a website or software where they could upload their files related to a design project. As an example a customer wanted to be able to upload a graphic profile and just give a short comment for the file. After the file is uploaded, the file would be accessible for all of Graphiq's designers.

6.4.3 Designers

Slack as a communication tool

The designers mention the swift and easy way of communicating with Slack as a key benefit. The designer can easily receive feedback and have quicker progress than using traditional communication tools such as e-mail. With that said, the designer have had different experience from customer to customer. Customers that already have experience using Slack have often been more efficient than others. This can relate to the learning curve you have when starting to use a new software tool.

Graphiq design support

Designers using Slack receive chat support from Graphiq employees through the platform. The designers interviewed stated that this have given them the feel of being part of a professional company and also the benefit of receiving some initial feedback from other professionals when

needed. The designer have been very satisfied with receiving support in projects when an issue occurred with the customer or the customer doesn't respond.

Design collective and community

By using Slack as a communication tool the designer also feels part of a collective of designers. Some designers mentioned they could see themselves as working fulltime as a freelance designer through Graphiq's platform due to the fact that they could collaborate and receive feedback from other designers. Even though it would be freelance work they would feel part of a community. The designers also have said that they see value in sharing design inspiration through the communication tool with each other.

Collaborate on large projects

Designers also see the communication tool as part of a solution on how to work together on larger projects. For projects that need several design resources, multiple designers can be connected to a customer's communication chat. This would typically be for projects where the customers need a lot of design work that needs different design skills.

6.4.4 Summary

Customers and designers feel there is a need to start all projects with a video meeting. They would also prefer the ability to share screen and possible create very simple sketches to get the project on the right track. Both customers and designers are satisfied with using Slack a a communication tool to facilitate work. Customer saw an issue in getting hold of the designer in urgent matters and wanted phone/sms ability. Customers also wants a better file hosting or file indexing service. The designers feel Slack enables them to work with other design peers and also collaborate on large projects. They feel part of a design community and one of the reasons are the design support provided directly through Slack by Graphiq representatives.

6.5 Knowledge

6.5.1 How It Works Today

Today Graphiq connects companies manually with the most suitable designer from Graphiq's database of designers. The needs uncovered while creating the design brief are matched with historic data from each designer, their experience, portfolio, price, availability and industry knowledge. The challenge for Graphiq is to find out which variables will create better matches between customers and designers and what kind of knowledge that are necessary to make the customer come back and purchase more design services.

6.5.2 Customers

Need for design experience and language competence

The two most important competences that a designer needs to possess according to the interviewees are design skills and efficient and clear communication abilities. A good understanding of design, talent and work experiences together with language skills enables this.

Industry knowledge

For smaller projects, industry knowledge doesn't matter that much. As long as the customer are able to brief the designer in the beginning of the project it should be straightforward. As soon as a customer have more complex or larger projects, the industry knowledge is of greater need to be able to deliver to the customers expectations. As an example one customer needed a re-design of a software targeted at an age group 50+ in the shipping industry with low IT-experience had a very clear need for this. In general, customers say that the more knowledge the designer has about the industry the better.

Customer care

Customers say that one of the most important factors when it comes to knowledge is how designers perform customer care. For the customer it is important that all designers provide the same kind of support or care. The customers feel that Graphiq's brand will be dependent on how designers treat customers and it needs to be consistent for the customers to trust Graphiq as a design service.

Cultural knowledge

Some customers have expressed that it is important that the designers have knowledge about the culture related to the customer. As an example Graphiq have a customer from the United States, *Great Black Speakers*, who represents the Afro American culture. For that specific customer it was important for the customer that the designer understood their culture to create design that fits Great Black Speaker target group.

Language knowledge

Customers have raised the question to work with designer with different native languages when text are supposed to be part of a design file. In many cases typo errors may occur and there should be mechanisms to avoid this. That's one of the challenges when working with designers with different languages.

Variety of design skills

Customers see the need in having access to a wide range of designers with different skills. That means customers would like to pick designers from a buffet based on different skills they master (web design, visual identity, UI/UX, brochures, slide decks etc.). And for many customers it's important that the customer doesn't have an ego or a to distinct style, but are able to design based on the customer's need.

6.5.3 Designers

Variety of design tasks

Designers prefer to work with a variety of design tasks. The mix of projects ranges from large time consuming projects that can be extremely challenging to projects that are easy quick fixes. The large projects have an economical benefit together with development of design skills. The smaller projects have mostly an economical benefit and designer like to do some minor "brain dead" projects. A challenge with large projects is that designer may use a lot of time to familiarize themselves with the customers company and the job that needs to be done.

Large and small design projects

Working with larger projects can according to some designers be easier when the customers is a large company. Due to the wide information they usually can provide up front it is often easier to become familiar with both the company and the design assignment compared to smaller companies or startups that doesn't have a full overview.

Prefer domains expertise projects

In general, designers have their own skills or styles they like to work with. The designers we have interviewed like challenges, but seem to be more comfortable working with design assignments where they have domain expertise. They state that they prefer projects that match their skills, their language and to some degree their cultural knowledge.

Designers motivation

Designers are motivated by work when it is from companies that have a concept they like. Designers can easily be unmotivated when they work with projects they don't care to much about. Other designer can also be motivated by the fact that they are able to work with international projects.

Cultural knowledge

A challenge some designers see when working with foreign customers or companies with background in different cultures is how to behave. As all cultures have different norms the way to behave and speak are different from culture to culture. The designers feel they can just mimic the customer and hereby treat them well. This may be a challenge if you don't have designers with the right cultural understanding to match with potential customers.

6.5.4 Summary

Findings have shown that customer value highly designers experience and language competence as this have a great impact on the end result. The same goes for designers as they prefer to work with projects where they have domain expertise and where they can communicate efficiently. The customer's need for industry, cultural and language knowledge vary from project to project, but in general it can be said that customers emphasize these factors while working with designers.

The customers want to have access to a variety of design skills, but not all designer are interested in doing projects where they are not experts. It is important for designers to become motivated by projects, but it will be challenging for Graphiq to only provide projects of interest. For the customer they way designers provide customer care is highly important when it comes to repurchasing.

6.6 Availability & Cooperation

6.6.1 How It Works Today

Currently a project manager from Graphiq matches customers with a designer. The project manager typically finds a designer from the database, asks if she is interested in the design project, checks if she has the right competence and is a good match for the customer. After the customer is matched with the designer, the designer determines the working process. Graphiq give some instructions to the designer on how to greet the customer, but after that it's mostly up to the designer. The availability, turnover speed and number of iterations may vary from designer to designer. We will now present our findings from the interviews with both groups and create a basis for analyzing this part of the service.

6.6.2 Customers

On demand design

Customers interviewed highlights the "on demand" or "instant" design service function as the biggest value Graphiq currently delivers. Several customers state that this can be a competitive edge as no one else in the design industry are delivering this today. Especially the need for a service such as Graphiq is prominent when internal design resources are unavailable due to holiday, other projects, sickness or other reasons. When projects suddenly arise or you haven't had time to create a presentation for the conference the next morning, people need Graphiq. Customers state that the service "Graphiq - On Demand Design" is a service they would, and can see large corporations, pay more for.

Turnover speed and iterations

When it comes to turnover customers expect one or two days on smaller projects. On larger projects turnover is expected to be longer and vary from project to project. The most important aspect is that the designer delivers within the set deadline as long as the deadline is reasonable. For small projects, two to three iterations are usually enough. The more familiar the customer and designer are with each, the less iteration is needed. But the customer says the most important thing is to receive a design they like, even though it takes much iteration.

Cooperation

When customers use Graphiq they expect some type of standardized customer service. If they are to use Graphiq and different designers they need to trust the service and all the designers using the platform. This means that when a designer commits to a project they always need to communicate efficiently and respond to questions and comments within a reasonable time, they need to deliver within the set deadline even if it means that the designer needs to work in inconvenient hours. Customers expect the designer to give answer at least within a day, that doesn't necessarily mean design work, but comments on questions and feedback from the customer.

6.6.3 Designers

Workload

A challenge some designers see when working with customers is that a lot of customers doesn't know exactly what they want or doesn't understand that it takes time to create beautiful design. A lot of designers know that the industry works like this and often expect to work 10-30% more than the agreed amount of hours. Designers also mention that it is much easier to be efficient and deliver to the customer's satisfaction when they really know what the customer want.

Availability

Some designers suggests a model for availability where they could go into Graphiq's service and highlight what time they are available to work. Especially for smaller "on demand" design projects. The designers see a lot of value in these projects as they are usually not too demanding, but have economical benefit.

Time estimation and cooperation

A challenge for designers with larger projects is to estimate the time they need to set aside. And for some projects, designers can easily lose focus if the progress is slow and the customer use a lot of time to give feedback. In general designers want to work with customers that are able to give feedback quickly.

Iterations

For "on-demand" design projects, the designers typically see themselves doing one or two iterations. More than that can be challenging, as it's usually a short deadline. For other projects the designer typically do three to four iterations. While that is said, most designers take a lot of pride in what they design and wouldn't like to deliver something the customer is not satisfied with.

6.6.4 Summary

Customers value highly the possibility to use Graphiq for on demand design projects. This model is also suitable for designer, as they want to set aside time in a time management system to let Graphiq know when they are available for smaller projects. For customer expect fast turnover and enough iterations to receive a design they value. Designers know and have experienced again and again that customer are not able to estimate and understand what it takes to create beautiful design. Therefore there is a mismatch in expectations from customers and designer when it comes to turnaround and iterations. Both customers and designers expect quick feedback and response to keep good progress in a project.

6.7 Delivery & Backup

6.7.1 Intro

This probe question had focus on the delivery of projects. What file types the customers wanted, if backup of files are important, whether the customers needed all sketches or not, and what the designers thought about the same subject. The reason for this probe question was to examine how important this subject was to value creation on the platform.

6.7.2 Customers

End result and backup

Overall the customers are satisfied with only receiving the end result, and don't seem to care too much about the sketches and working documents. What they found important was that the files were delivered in the format they wanted: "Many of my customers need PowerPoint. I know that too many designers PowerPoint is a foreign word, but my customers need to put the slides in existing presentations and have the ability to edit documents." Backup of files was only considered a minor value to the customers. Normally they have other service providers for this. However some saw a value in Graphiq storing the working files if they needed editing of the files in the future.

Delivery file

An important factor for the customers which not everyone saw on before hand was to get the files delivered together in a folder or as a .zip-file (compressed folder), and with understandable names. In many design processes several files are sent back and forth and stored in different folders by both the customer and designer. In some cases this lead to confusion and a need to send files again.

6.7.3 Designers

File formats and backup

Some designers uttered a somewhat fear of having to work with document types they were not used to. For example one customer needed a web design: The designer was comfortable delivering a web layout in .jpg (image file), but encountered problems when the customer wanted a .html-file (web file) for easier implementation of the web design. In some cases the designer argued to deliver files in another format than what the customer requested. Often the customer trusted the designer's expertise and accepted another file. The designers neither did see a great value in backup of files as they have their own systems for this on before hand.

6.7.4 Summary

Overall the finding from this probe question was that file types and backup did not seem to have a great impact on value creation.

7. Analysis & Discussion

7.1 Introduction

In the analysis we will give a short recap of the strategies discovered in the literature review. Then we will analyze and discuss each strategy in light of Graphiq's two-sided platform based on literature and findings that have enabled us to craft actionable strategies. Finishing off we will present growth strategies for Graphiq based on their fit with Graphiq's two-sided business model and current phase. From there we will generalize our findings and explain how other platforms similar to Graphiq's can enable the same growth strategies and thus answering the research question: *How to create growth strategies for two-sided platforms?*

7.2 Strategy Analysis

Here, we will analyze and discuss the 12 strategy categories found in the literature and craft growth strategies based on theory and findings. The crafted strategies are named in italic and are categorized under the 12 strategy categories found in the literature.

7.2.1 Subsidizing

Subsidizing is a common two-sided platform strategy that involves subsidizing one side of the market to make them board the platform and thus overcome the chicken and egg-problem (Parker & Van Alstyne, 2000).

Attract a large group of designers

Theory suggested that you can subsidize a group to attract a large quantity of participants (for Graphiq this would be designers) and that this will attract the "money side", Graphiq's customers. For Graphiq's customers this would be valuable if this strategy created cross-group value (Eisenmann et al., 2006). But as customers interviewed have expressed that they value getting the job done quickly and with high quality, which is not proportionally related to the quantity of designers, one can argue that attracting a large quantity of designers doesn't

necessarily create higher cross-group value. However, subsidizing to get access to marquee designers (discussed later) could lead to greater increase of cross-group value.

An important note to two-sided platforms in general is that you should consider what is most important of quality of participants and quantity of participants. Quality of participants refers to how much value one participant contributes to the platform. In the case of Graphiq, the platform delivers more value by having high quality designers than a big quantity of designers. If that is the case for your platform, subsidizing should be mainly used as a means to attract marquee users, not a large quantity of users as it will not necessarily lead to bigger cross-group value.

Subsidized design projects

A way to attract customers would be to offer discounted design projects. The goal would be to create network externalities and the price should therefore as described in the literature be lower than if a company only served one side of the market (Eisenmann et al., 2006). As Graphiq already offer a cheaper service than competing companies one can argue Graphiq are already using a subsidy strategy. Customers interviewed also states that the current price is fair and based on this one can say there is no need to subsidize the price further.

Subsidies take different forms, and one should consider other means to entice users to join. As an example, both customers and designers have mentioned that customer support given by Graphiq have proven valuable. Parker & Van Alstyne (2014) suggest technical support as a subsidy strategy to bring on users. Based on both of Graphiq's user groups expressions and theory, a subsidy strategy providing technical customer support for both groups would entice users to on-board Graphiq's platform and can hereby be recommended. One can also argue that as Graphiq have users that typically multi-home, this subsidy strategy would differentiate Graphiq from other service providers.

A subsidy strategy as described above is beneficial for an early stage company in the seeding phase and should incentivize participants to board the platform (Wertz and Kingyens, 2015).

7.2.2 Pricing

Pricing strategy is the term used to describe how platforms typically have low or no fees in the beginning to attract users and then gradually increase the prices to capture greater revenue. Evans (2012) also introduced that as the demand for the platform, and value created for each user group differs, pricing can be adjusted between the groups to reach the optimal price equilibrium that generates highest surplus and sign-ups from each user group.

Two types of pricing: Production work and creative work.

Customers value projects differently based on their type. They seem willing to pay more for creative work (e.g. development of logo) than production work (make an existing presentation look better). Therefore a strategy could be to introduce two types of pricing: one for production work and one for creative work to reach optimal price equilibrium. Many designers already price their work differently so this could be done without subsidizing them. Fair pricing according to what is being delivered increases the cross-group value. This strategy is fairly easy implemented by categorizing different design tasks.

For platforms in general, this strategy can be used to differentiate offerings on the platform by price, and thus reach optimal price equilibrium as Evans (2012) argued.

Adjust transaction fee according to the value Graphiq delivers

The designers argued that the transaction fee Graphiq take should reflect how much platform-to-group value Graphiq provide compared to the cross-group value delivered by the designer in a specific project. For smaller projects the platform-to-group value given by facilitating work, preparing the brief, take care of contracts etc. was valued up to 30% of the total project price. When projects gets bigger this value decreases compared to the work the designer does, and the transaction fee should be down to 5% according to some designers. A way to implement this strategy is to set different rates at different prices. This is a way to maintain an affordable price to customers, and to increase the economic value for the designers. Thus raising the platform-to-group value. This is also a way to differentiate from other platforms which typically has a static fee, making it more affordable to do high price projects through Graphiq's platform.

For all two-sided platforms with transaction fees, we argue that the transaction fee should reflect the platform-to-group value compared to the cross-group value. For example, if a

customer on a two-sided platform considers the platform-to-group value delivered by the platform to be 20% of the total transaction, the transaction fee should be 20%. Consider a $10 ride on Uber: If the customer values the driver's job of transporting him from A to B (the cross-group value) to be $8, and that the Uber platform made it possible and easy for him to get a ride fast to $2, 20% is a fair transaction fee reflecting the value relationship between cross-group value and platform-to-group value. Further, we argue that if the relationship between platform-to-group value and cross-group value differs from transaction to transaction, the transaction fee should be dynamic to reflect this. Let's use Uber again: if the Uber ride is very long one could argue that the cross-group value delivered by the driver compared to the platform-to-group value given by Uber's platform is bigger than for a short ride.

Adjust transaction fee for different skill levels and experience

The transaction fee can also be flexible according to how many projects a designer does through the platform. If it gets lower from project to project it would incentivize a designer to do more projects. This is a way to increase the platform-to-group value and thus lowering the incentive for doing projects outside the platform. This strategy would also value experienced designers more as they get more of the total price for each project done. This suits well to Graphiq's quality focus. However, this requires some technological development, and the impact of such a strategy will be low in the seeding phase as there is not a significant amount of projects being done by each designer. Therefore such a strategy might be more suitable in the growth or scaling phase.

This strategy can be compared to the one above; it's all about adjusting the transaction fee according to the relationship between cross-group and platform-to-group value. We argue that a transaction fee that would create price equilibrium on a two-sided platform can be calculated by the following: "Transaction fee" = "Platform-to-group Value" / "Total value delivered on the platform", where Total value delivered on the platform = Platform-to-group value + cross-group value + within-group value. Here we quantify value as the price point a customer is willing to pay for a service/product. With this basis, a pricing strategy to fuel growth is to take a lower transaction fee than this equilibrium ("Transaction fee" < "Platform-to-group Value" / "Total value delivered on the platform") as this in theory will mean that the users are getting "more value for money".

7.2.3 Trialability

Trialability is the process of giving away a product or providing a service in a limited time to a user. It is used as a strategy to attract new users to a platform as explained by Gallaugher & Wang (2002).

Free or time limited design services

Trialability is a strategy that focuses on acquiring new users. Graphiq could leverage this strategy by giving customers the first design project for free or a set of design services for a limited time for free. The goal would be to let new users test Graphiq's service and hereby give them a guarantee of quality (Gallaugher & Wang 2002). Implementing a trialability strategy will arguably be costly for Graphiq as Graphiq would need to cover the cost of all design production done by designers. One can reason that there are other less costly opportunities for Graphiq to display quality, as an example show the designers' portfolios, customer references and example projects. Based on this, we can say that a trialability strategy is undesirable for Graphiq at the current *seeding phase*. But, trialability may be a suitable strategy in the *growth* or *scale phase* as we can expect Graphiq to be financial stronger in these phases and Graphiq should therefore consider trialability at a later stage.

Trialability is a common strategy for companies with SaaS (Software as a Service) business models, as there are very low marginal costs in selling the next unit. For two-sided platforms the marginal costs are usually much higher considering that the supplier group on a platform usually gets around 90% of the total transaction. Therefore we argue that trialability is not as cost effective for two-sided platforms compared to for example one-sided SaaS companies.

7.2.4 Micro market

Micro market is the strategy where the two-sided platform focuses on a small community of users to generate positive network externalities amongst the members of the community (Van Alstyne, 2014).

Country to country growth

A classic micro market strategy is to focus the marketing efforts at one country (or city) at a time. The benefits of this strategy in the case of Graphiq is that designers and customers speak the

same language, have the same time zone and have the possibility to meet each other. Another benefit of being country specific is that price expectancy is aligned between customer and designer. A designer from a Western country can not compete with an Eastern designer on price. But with this strategy you also lose the benefit of being able to offer cheap designers from Eastern countries to Western countries, or to export "exotic" design from another culture. Some American customers have expressed a desire to work with Scandinavian designers, and seen this as a competitive advantage by using Graphiq (which mostly have Scandinavian designers to date) compared to other services.

Also, many customers and designers are used to use English as working language, meaning the language barrier should not be a problem. Therefore, deploying a micro market strategy does not exploit a potential great competitive advantage for Graphiq: exporting high regarded Scandinavian design to other geographical markets. This fits well with the quality strategy Graphiq deploys, and Graphiq should still be able to offer design cheaper than agencies considering that the average hourly rate of design work is pretty consistent all over Western countries.

Considering this we can argue that you should consider the value a platform can provide by giving access to products, assets and services from another country, before you implement a region specific micro market strategy. For example an important value delivered by Airbnb is that you can find accommodation in a foreign country, meaning that a micro market growth strategy would exclude an important value. While for Uber a micro market growth strategy makes more sense since a driver and passenger needs to be geographically close.

Focus on one industry

Industry knowledge was to some extent valued by customers. A suggested strategy could be to target customers and designers with experience from similar industries. As an example, Graphiq could target marketing consultancies focusing on delivering online marketing services to its clients. This group has a large need for online marketing material. On the other side, Graphiq could target designers with expertise within design for online marketing such as online ads, landing pages, banners etc. Doing this would enable Graphiq to create a lot of value between the two groups by being specific in the value delivered and it would generate strong network externalities. The next step would then be to enter an adjacent sector to grow further.

On the other hand, industry knowledge was not considered really important to customers, and most designers are not industry specific. Meaning that this micro market strategy would only create incremental increase in cross-group value and therefore not be worth implementing.

Focus on one niche product

Another micro market strategy would be to focus solely on offering one specific product, for example slide decks (a 10-12 slide company presentation, often used by startups presenting to investors). Then Graphiq could focus all the marketing efforts on the customer side towards startups. On the other side they would focus on designers with high competence in creating slide decks. This would let Graphiq brand themselves as a *slide deck company* and after taken a strong position within this market they could start providing adjacent design work for their customers.

Another benefit with this approach is that designing slide decks is a type of task that seems to fit the platform model well. Customers typically have a draft that does not look good. Often they need it designed well within a couple of days, meaning that fast turnover time is important. Also, going to an agency for such a task is way too expensive for most startups, and agencies are not available around the clock which is important to startups who typically does not work regular working hours. This fits with Graphiq's strategy with fast matching process and availability around the clock. Further, focusing completely on a niche could create basis for a competitive advantage as Graphiq could become superior to its competitors and hereby the first choice for Graphiq's customers.

The downside with this strategy is that many customers are looking for total suppliers within design, meaning that if Graphiq only offers a niche product, they might choose another service that are able to offer a wide set of services. A way to tackle this, and still exploit the advantage of micro market strategy for growth, is by focusing marketing efforts towards a niche product, while still being able to offer other products by having adaptive and skilled designers (further discussed under Marquee users).

By all the micro market strategies, this strategy fits best with Graphiq's overall strategy to offer quality and speed to an affordable price. Also, micro market strategy is in the literature suggested as a good strategy in the seeding phase, which Graphiq is in at the moment.

In general you can implement micro market strategies by many verticals: geographies, industry and product offerings. You should consider the platform's value proposition to analyze by which vertical it is most valuable to implement a micro market strategy.

7.2.5 Marquee users

Marquee users can be described as users that bring many times the value of a regular user to the platform. This can be a buyer who buys in high volume, or a celebrity that attracts thousands of users to a picture-sharing platform (Eisenmann et al. 2006).

Recruit high quality designers

Customers regard the quality of design as one of the most important values with a two-sided platform as Graphiq. An essential strategy can therefore be to recruit top quality designers to the platform. As discussed earlier, customers seem to care more about the quality of the designers on the platform than the quantity. When customer are referring to quality they focus on excellent communication abilities, wide set of design skills with experience and preferably industry competence. As Eisenmann et al. (2006) insinuate, attracting marquee users will accelerate growth on the other side of the market. In Graphiq's case, attracting top quality designers would accelerate growth on the customer side.

Based on the findings and theory, attracting marquee users seems to be a strategy that Graphiq should utilize. One can argue that recruiting top quality designers with excellent communication abilities, wide set of design skills together with experience and some industry competence would increase the cross-group value on Graphiq's two-sided platform. Furthermore one should consider making the platform exclusive to top quality designers as this could work as an incentive for designers to register.

In general, Eisenmann et al. (2006) argued that attracting marquee users to a platform can be a highly effective strategy to fuel growth and the findings in this research underpins this. Considering the chicken and egg problem (Caillaud & Jullien, 2003) of attracting many users without the presence of the other, attracting marquee users seems like a highly effective strategy in the seeding phase to seed the platform with its first users.

Find customers that need lots of design

Now we have looked at several valuable characteristics that makes designers marquee users. Some of the characteristics fits well for customers to be marquee users, such as communication skills, but a marquee customers is first and foremost a customer that buys a lot of design as Eisenman et. al (2006) states.

The research indicates that there exist customers with frequent need for design services that Graphiq can deliver. Accompanied by theory one can say that attracting marquee customers is a viable growth strategy for Graphiq. What the findings and theory doesn't reveal are characteristics of who the potential marquee customers are. To be able to attract marquee users, strategists will need to identify characteristics of the potential marquee users and thereafter target them. It should be noted that entering agreements and potentially exclusive deals with marquee users may be expensive for Graphiq as their two-sided platform is still small. To avoid high costs associated with attracting marquee users Graphiq can relinquish their need for exclusivity.

Finding high volume buyers are welcome to any business. The special with this for two-sided platforms is that the network externalities caused by attracting these users leads to further growth (Rochet and Tirole, 2003), which you don't see in other types of business models .

7.2.6 Piggybacking

Parker and Van Alstyne (2014) present piggybacking as a strategy where a new two-sided platform "borrows" users from another network or platform. As Sun and Tse (2007a) argue, it's a lot easier to grow a two-sided platform if you are able to bring on users from one side of the market.

Slack-bot

Graphiq is currently leveraging Slack as a service to facilitate all communication between customers and designers. Slack currently have over 2,7 million daily active users (Smith, 2016) and is open source which means other companies can build application on top of their platform to leverage the existing and growing user base. The research have shown that using Slack have given a positive effect on the working process as both the customers and designers have been able to communicate efficiently, share notes, sketches, design files and given each other quick feedback. Slack is the fastest growing business application ever made and already have a large

user base. A viable strategy for Graphiq is to piggyback on this existing user base. Sun and Tse (2007a) explains how companies can use distributors to produce and sell network-specific products to participants on either or both sides of the market.

Based on the research and theory there is an opportunity for Graphiq to leverage Slack existing network of users by creating an application on top of Slack's platform that can be distributed to its users. This would enable all existing 2.7 million daily active Slack-users to access Graphiq directly from their own team, and start a conversation with a Graphiq employee in the matter of seconds. For the existing Slack-users it would be almost like having an in-house design team. Other companies have already piggybacked on Slack and successfully launched integrations and bots on top of the platform.

A challenge with leveraging Slack's existing platform is the lack of information on what type of users that are currently on the platform. It can be argued that Graphiq should focus on one certain type of customers with a set of characteristics. If considering to piggyback on Slack's platform one should identify what type of customers are on Slack's platform and which of them that are a good fit for Graphiq.

As theory suggest, piggybacking is an effective strategy to quickly reach a large quantity of users (Parker and Van Alstyne, 2014). The challenge for two-sided platforms is to identify another network or platform on which the platform can piggyback on, and then be "allowed" to piggyback on the existing network or platform. The key here is to either identify similar user groups you need on your platform in an existing network, or to adjust your target user groups according to an existing network that you are allowed to piggyback on. As Graphiq are allowed to piggyback on Slack because of their open API's, Graphiq could adjust their target user groups to users that already use Slack to leverage this piggybacking strategy.

Design communities

Graphiq will need to attract a lot of designers to create gross-group value between designers and customers. A piggybacking strategy that would benefit is to target design communities where there today is a large quantity of designers that could be willing to take on freelance projects. As an example there is Norwegian online design community, Designbasen (Designbasen, 2016), where designer can post their portfolio and customers can browse different designers. As Parker and Van Alstyne (2014) argue, it is a lot easier to convert an existing user base into participants

of a new network. This means Graphiq could target designers from Designbasen (Designbasen, 2016) and attract them to Graphiq's platform. Complemented with a seeding (described again in 7.2.9) strategy as recommended when working in a market where users multi-home, one can argue that converting designers should be fairly uncomplicated. After communication with some of the initiators behind Designbasen (Designbasen, 2016) it has come clear that there are no one currently managing the website and there is need for some new people who can further develop the website which also suggests that piggybacking in this community is beneficial.

There exists several design communities around the world that also would be interesting for Graphiq to piggyback on. As an example you have large international design communities where people share their work such as Dribbble (Dribbble, 2016) and Behance (Behance, 2016) and platforms connecting customer and designers such as UpWork (UpWork, 2016) and 99designs (99designs, 2016). All these platforms have large user bases and should be considered in the future.

As Graphiq currently serves mostly Norwegian customers and still are a company in the seeding phase, one can argue that piggybacking should be targeted at Designbasen (Designbasen, 2016). As the other design communities mentioned above are larger than the Norwegian Designbasen (Designbasen, 2016), these can be targeted in a later phase. It is arguably more reasonable as the international design communities have more product features and Graphiq would need to diversify more from these compared to Designbasen (Designbasen, 2016).

As piggybacking can potentially attract a large quantity of designers quickly, this lays the basis for a higher within-group value. As more designers board Graphiq's two-sided platform, the within group externalities will increase. This also indicates that piggybacking is a suitable growth strategy that fits Graphiq's two-sided platforms with users that multi-home.

7.2.7 Envelopment

Platform envelopment is when a firm leverages the user base of their existing platform to attack another platform by introducing a similar one (Eisenmann et al., 2011). As an example, Microsoft did this by introducing Windows Media Player (WMP) to their user base of the Windows operating system, and thus attacking RealNetworks video platform that was serving the same user group.

Introduce additional services

Findings show that Graphiq currently provide value in the beginning of a design project as Graphiq create the brief, negotiate price, match customers and designers and facilitate communication through their platform. As findings have highlighted that the transaction fee should be lowered for larger projects, as Graphiq does not provide a lot of value during the design projects, a strategy to cope with this challenge could be to use envelopment strategies. It has come clear that a lot of customers and designers use Google Drive, Dropbox or other types of cloud storage services to store and backup design files. A suggested growth strategy for Graphiq could be to leverage this already existing need and offer its users cloud storage to a discounted price or included in a membership deal. As Eisenmann et al. (2011) explain with the WMP example, the product doesn't necessarily have to be superior, as Graphiq already have control of its user groups. While this is said, evidence also show that the customers and designers doesn't necessarily need cloud storage as they already have it. One should therefore investigate further the likelihood for Graphiq's users to start using cloud storage if offered by Graphiq before implementing this strategy. One can also argue that as users have not expressed the need for this service, Graphiq should not prioritize this strategy at the current stage, but it could be a better fit for Graphiq's platform in the "growth" or "scale" phase. This can also be said to be supported by Suarez & Kirtley (2012) who states the the enveloper is typically larger and financially stronger than the platform firm being attacked.

Similar envelopment strategies can be used for other online services that the customer and designer group is already using. Especially should improvements be done for the designer group as this would make it more justifiable to charge a higher transaction fee. A recommended strategy here would be to create internal image galleries, icon databases, color themes, fonts, website themes etc for Graphiq's designers to use. As it would demand a lot of resources to create these databases, using an envelopment strategy focused on providing these resources would fit better during the "growth" stage according to The Phase Model. During the seeding stage one can justify a license or alliance strategy with partners as it is less resource demanding from Graphiq's point of view, but you can still be able to provide value (more about this under section 7.2.8).

One of the services that designers currently use is software to send invoices. Findings show that designers who doesn't have a system for invoicing dislike sending invoices, while others who are used to the work doesn't think too much about it. At the same time, Graphiq is

also using a manual invoicing system to invoice its customers. As Graphiq's platform scale and take onboard more customers, invoicing becomes more time consuming. Based on these findings one can argue that Graphiq could use an envelopment strategy and create an internal invoicing system customized for Graphiq's need, its customers and designers. Creating an internal invoicing system could be beneficial, as it would reduce time needed to send invoices to customers and one could also offer this service to the designer. Crafted correctly the invoicing system could work seamlessly from project start to finish. As price is stated in the design brief, the invoicing system could automatically charge the customer based on the price and also issue a payout to the designer based on the price from the brief subtracted Graphiq's transaction fee.

Creating a software as described above can be resource demanding and as Suarez & Kirtley (2012) express, the enveloper is typically larger and financial stronger. As Graphiq is still a company in the seeding phase one can argue that Suarez & Kirtley's (2012) characteristics doesn't apply to Graphiq. On another note, the companies that Graphiq potentially would "attack", such as Fiken and Plasso that currently provide invoicing systems, are not financially a lot larger and stronger than Graphiq. This speaks positively for Graphiq's opportunity to create a invoicing software integrated in their platform.

Based on the discussion mentioned above one can say that envelopment is a viable strategy for Graphiq to use as long as one investigate the size of it's competitors, the resource requirements needed to implement the strategy and how big the customer need is. Generally envelopment is a growth strategy that is more viable in later phases.

7.2.8 M&As, Licenses & Alliances

A strategy to grow a firm's user base is to acquire or merge with a competing platform. Combining two networks is stronger than one, and this can be a strategy to overcome the chicken and egg-problem (Sun & Tse, 2007a).

Licenses or alliances can be another strategy to get hold of a large user base. American banks made an alliance to create Master Charge (now Mastercard) as a response to Visa (Sun & Tse, 2007a). Firms can also license access to a large user base.

Team up with service providers

As Graphiq should add more value during a design project, licensing and alliance strategies could be the way to go about creating growth during the seeding stage in light of the Phase Model. A drawback with strategies like these are the high premium cost often applied to collaborations according to Sun & Tse (2007a). A strategy that Graphiq could benefit from is alliances with large industry actors that deliver design tools. An alliance agreement with such an actor would let Graphiq offer its designers free or discounted access to multiple design tools that they already use today. This would be attractive for designers and also justify a higher transaction fee added by Graphiq. For the alliance partners, they would access a new distribution channel to reach designers. These types of collaboration can be created with different industry actors based on the need expressed by Graphiq's users in the findings. A recommended growth strategy for Graphiq is to go into license or alliance agreements with companies such as Adobe (design tools), Sketch (design tools), Iconfinder (icon database), Dropbox (cloud storage), Google Drive (cloud storage), Jottacloud (cloud storage), Unsplash (stock photo gallery) and others. This would both create value for existing designers, but could also attract new designers. Such a strategy could attract a large amount of designers, but as discussed earlier attracting a large quantity is of less importance than attracting high quality designers and therefore this strategy would not necessarily lead to large network externalities.

The drawback with partnerships such as the ones described is the potentially high profit share that would need to be split with partners. Also, as an independent platform Graphiq would lose or need to give up part of the control of their network of designers and customers. Depending on the partnership, Graphiq's role could easily be limited to a distributor role of the partner's tools.

One can argue that for alliance & licensing strategies to be viable for Graphiq the cost of implementing the strategies must be assessed before creating an agreement with partners. But in general a partnership with one of the companies mentioned above can be recommended, as it would enable Graphiq to grow its userbase.

In general one can argue that licenses or alliances can be an effective strategy to acquire a large amount of users in the seeding phase, but it's important to weigh it up against the profit loss of such an agreement. It can also be challenging to secure such an agreement in the seeding phase as the platform's user base is still small and of little value to the license or alliance partner. Also,

it is important to analyze if the quantity or quality of a group is the most important factor to create cross-group value. If quality is most important, partnering up with a network that can provide this is of greater value than partnering up with a large network.

Acquire Designbasen.no

As mentioned in section 7.2.6, Designbasen (Designbasen, 2016) was introduced to Graphiq and there is evident that there are no personnel actually responsible for updating the website today. A potential strategy for Graphiq could be to acquire the complete website, all the users and relevant data. This could be used to spark growth for Graphiq in both user groups. Graphiq could use the data from Designbasen (Designbasen, 2016) to attract the most talented designers and also use its brand and strategic positition to further grow Graphiq especially in the Norwegian market. Similar platforms most likely exist in other geographical markets.

A challenge with acquiring Designbasen (Designbasen, 2016) is that Grafill, the Norwegian Association for graphic designers and illustrators, is one of parties currently controlling and influencing the website. This means rules and legislation can be applied from Grafill that Graphiq will need to adapt to. One should consider the effect of such regulations and consider this against the value of acquiring the database. If Grafill's restriction are not too harsh, acquiring Designbasen (Designbasen, 2016) and its data seems to be a viable growth strategy for Graphiq. If the regulations laid down be Grafill are to demanding, it is not recommended for Graphiq to acquire Designbasen (Designbasen, 2016) as it seems more reasonable for Graphiq to stay independent.

7.2.9 Seeding

Seeding is about creating product benefits that users are attracted to (Suarez and Kirtley, 2012). Theory shows that product benefits are especially important when working in markets where both sides multi-home (Sun & Tse, 2007b), which is the case for Graphiq. Therefore this is considered an important strategy category for Graphiq and is of high priority.

Platform features

The findings have identified many potential platform features to increase the platform-to-group value. For designers an accounting tool would be beneficial to handle all the invoices and tax

reporting for them. A time tracking tool would also be useful to track progress and amount of time used on projects.

Designers have expressed difficulty in estimating time usage for projects on beforehand. Data from completed projects can be used as basis for an AI (artificial intelligence) that can estimate project time, giving both designers and customers better insight into project length.

An essential thing to know before starting a collaboration with a designer is whether the designer is available for work or not. Therefore, providing a calendar function where the designers can set their availability would provide crucial information to the customers which would be of high value.

Another feature that could provide platform-to-group value is file storage and backup for both designers and customers. For the designers, their portfolio could be automatically updated whenever a project is finished, providing great value since updating your portfolio is a time consuming process.

Many customers expressed that they want to keep collaborating with a designer they have build a good relationship with. A “save as favorite” function could serve this purpose. This feature, combined with the others mentioned here would also work as important factors from keeping designers and customers from collaborating outside the platform.

An essential feature is the communication tool provided by the platform. The communication is a vital part of the design process. Features such as chat, video, file sharing and commenting are according to the findings very welcome from both groups to ease the process.

For the matchmaking process to go a s fast as possible, a matching algorithm could make this happen. Further, the breakout and rising popularity of conversation bots (Forbes, 2016) is another technology Graphiq could leverage to ensure fast processes at big scale.

These are just a number of potential features Graphiq could implement with the purpose of increasing the platform-to-group value and thus grow the user base. Implementing these features is considered a retention strategy, and does not directly lead to acquisition of new users. Product features are considered especially important for platforms where users tend to multi-home, which is the case of Graphiq. All features should strengthen Graphiq’s value proposition by delivering high quality design fast and to an affordable price. They can also work as means to make Graphiq more scalable by technology. All in all, creating a superior product can create a competitive advantage.

Bear in mind that these features would be worthless without the existence of the two user groups on the platform, and should therefore be considered as added value compared to the cross-group value facilitated by the platform. However, they work in symbiosis, meaning that the facilitation would not be possible without the features that actually makes up the platform, and that the features are useless without the existence of users.

One can argue that this actually creates a three-dimensional hen-, chicken- and egg-problem (the *hen* being the platform, and the *chicken and egg* being the two user groups) which every two-sided platform are facing. There is not only a problem in which market to attract, the development of the platform itself must also be given attention. Evans (2003) showed that the two markets should be developed in a cyclical manner. We hereby argue that the development of the platform itself should be included in this cycle. This makes sense according to the principles of *lean startup*, pioneered by Eric Ries (2011), suggesting that startups (which a platform in the seeding phase is) should adapt an iterative product development with focus on making product improvements based on market response. In other words. a product-market cyclical approach cycling from market to product focus in rapid iterations. For platforms this cycle can be translated to a platform-market-market cycle.

Features can be expensive and time consuming to develop. A suggested strategy is therefore to implement existing third-party solutions where possible. The downside with this is that the platform not fully controls all the technology that enables the platform, and that could backfire in case of bugs or malware. However this is a much trusted approach by software companies today, and considered a necessity to keep up with competitors as you cannot afford to develop everything from the ground up yourself.

A platform could open their API (Application Programming Interface) to third party developers for them to develop beneficial features for the platform instead of making or implementing themselves. This approach is done by many platform companies such as Facebook and Slack, making them three-sided platforms as they open the platform for a third market; the developers. Generally, this is a strategy deployed by companies in the scaling phase. The reason is that there usually has to be a large user base before a third party developer is able to capture any value on the platform by creating applications to it. If the platform becomes valuable to third-party developers, this can become a new revenue stream for the platform company. Third party

applications can from a two-sided platform perspective be considered as an increase in platform-to-group value.

To sum it up, creating platform features is considered an important growth strategy for two-sided platforms where users tend to multi-home. It is a retention strategy, creating platform-to-group value. Further, the development of platform features should be done in a cyclical manner together with acquisition strategies for the two markets, making a platform-market-market development cycle.

7.2.10 Versioning

Supported by existing theory within market segmentation and product differentiation, versioning as a strategy is focused on providing a wide product line with several vertically differentiated versions (Bhargava & Choudhary 2004).

Providing all types of design

Versioning is about offering a wide set of products on the platform. In the case of Graphiq this could be made possible by having designers with a wide set of specialities, all the way from logo creation to animation for example. This could either be done by having single designers with many skills, or having many designers with different skills. For Graphiq, a challenge with a versioning strategy is that providing a wide set of specialites need a lot more work on acquiring either designers with many skills or just many in general. Having many designers with different skills can be said to increase the cross-group value that is positive for Graphiq as a two-sided platform.

From a marketing perspective one can say that providing a wide set of design specialties decrease the focus for the platform. Experience from marketing done within Graphiq today show that word of mouth or the within-group effects increase on the customer side when marketing have been focused on one set of design skills, in example design of presentations. This argument speak in favor of not offering a too wide set of specialties.

Based on findings from the research it is has proven that customers want a single point of contact where they can purchase all the design they need. Some interviewees mentioned that they are not willing to use existing freelancer platforms because it takes to much time to manage and find the right people. Based on a quote from one of the interviewees "*Firstly I think that Graphiq*

is the kind of company that I need. Because is is about accessing all type of design services," one can argue that Graphiq should provide all type of design skills. Even though it is time consuming acquiring all the designers needed to offer a wide skill set, the value Graphiq can provide to its customers leveraging a versioning strategy is highly increasing which increases the platform to group value.

In general, for versioning to be an effective growth strategy a platform has to analyze whether the demand group values a wide product range more than niche product focus. Also, the platform has to match the demand group's need with a supplier group that can offer what they need. We see that for two-sided platforms it's not enough to adjust to find a so-called "product-market fit". Considering that there are two markets and a platform, two-sided platforms has to adjust to find a "platform-market-market fit". This is closely related to the platform-market-market development cycle

7.2.11 Governance

Since a platform facilitates value creation between two groups, the platform is not fully in control over the value creation on the platform (West, 2003). Governance is used as a strategy to take greater control of the value creation and thus increase growth by offering a greater platform-to-group value.

Managed marketplace

A managed marketplace is a platform where different governance measures are applied to better control the value creation on the platform. This could include strict background checks, heavy involvement in the matching process, close monitoring of design projects, and excluding "bad" users of the platform as suggested by Boudreau and Hagiu (2009).

A background check should ensure the designer is of high quality in terms of design and communication skills. This can be done by checking the designer's portfolio and references, conducting an interview and give the designer a test task before they are accepted into the platform.

Heavy involvement in matching process can ensure the customer gets connected with the most suitable designer. Graphiq could act as an advisory in the matching process as findings show that many customers don't know what they are looking for in a designer. For the designer a

great value delivered by Graphiq with this approach is that they can reduce time spent on sales and marketing and increase time spent on billable design work. This will also work as means to ensure a fast matching process.

Further, the involvement could continue into the design project by monitoring the process. This way, Graphiq could easily intervene if problems occur and assist in finding good solutions, leading to faster processes and better end results.

If a designer underperforms over time the designer should be excluded from Graphiq. Underperforming are related to slow response time, low quality in the deliverables and poor communication. Graphiq will need to take the role as the "bouncer" to regulate which designers can work through the platform (Boudreau & Hagiu, 2009).

Educating users on how to get the most out of the platform is a pro-active governance measure to decrease the chances of misunderstandings and unfortunate incidents. For example by educating designers in customer care, and customers on how to order design.

In short, governance in the case of Graphiq would include managing which designers that are granted access to the platform, govern the design projects to ensure high quality processes and end results, and to exclude users that have negative impact on value creation on the platform.

The opposite of a managed marketplace would be an open marketplace. In an open marketplace everyone could register as a designer and sell design services. This makes the platform very scalable as there are no constraints to whom could register, but Graphiq is in no control of the quality delivered on the platform. An open marketplace would also mean that customers would have to do the searching and due diligence on the designers before they choose to hire one. This is again very scalable as the platform leaves this up to the customers, but it also means that the customer has to use their time on this, decreasing the platform-to-group value. If Graphiq does the searching and due diligence for the customer, Graphiq would work as a one-point-of-contact for the customer, dramatically reducing their transaction cost associated with finding a designer to hire for a project. The findings suggest that this is of high value to the customers. We can see that the two contraries open and managed marketplace has its pros and cons, but clearly that a managed marketplace is more aligned with Graphiqs overall strategy to deliver high quality design with fast processes to an affordable price. Another argument for this strategy is that Graphiq's biggest competitors are considered open marketplaces, and therefore a managed approach would work as a differentiation strategy (De Wit & Meyer, 2010). Further,

governance makes it easier for Graphiq to take a transaction fee where an open marketplace is more vulnerable to the issue where the two parts does the transaction outside the platform. This is an important factor for Graphiq to be a profitable business. The main challenge with the managed marketplace strategy is the scalability.

In general a two-sided platform has to choose its degree of governance. O'Reilly (2011) argued that the degree of governance should increase along with the increase in users on the platform. We argue that every two-sided platform has to take a strategic choice between being an open (low governance) or managed (high governance) platform. This is closely related to if the platform's value proposition is most dependent on the quality or quantity of participants on the platform, where high governance can ensure quality and quantity is easier to ensure with low governance. This is a strategic dilemma that every two-sided platform encounters, but as De Wit & Meyer (2010) argues there are no clear answer to which side of a strategic dilemma is better.

7.2.12 Information

Providing enough information for users on both sides of the market have proven to reduce cost and improve efficiency, thus being a driver for growth (Evans, 2012). Information can help reduce search and transportation cost as users more easily understand or find what they are looking for (Sun & Tse 2007a).

Show portfolio of potential designers

The customers have expressed that they want to choose designer based on their portfolio and references, but not necessarily choose from hundreds of designers. An information strategy could therefore be to let them choose from for example three designers that are well suited for their project. This is a platform-to-group value to the customers, but also to the designers as it means that they have to spend less time on customers and projects they don't get. Improving the information for the customers will reduce their search cost and it will be easier for them to make a decision according to Sun & Tse (2007a). While this is said it is important for Graphiq to keep in mind that the designers not necessarily value to much transparency. As an example one can be faced with a situation where a customer choose one designer out of the three recommended by Graphiq, but the designer doesn't want to work with that customer due to various reasons.

For Graphiq to implement an information strategy one must consider how the information affects both sides of the two-sided platform. Based on the research the designers are prepared to show portfolios and a price range if that contributes to the customer making a decision. Based on these arguments the described information strategy looks to be viable for Graphiq.

In general, we argue that it's important to show the demand side enough information about the supply side for them to take an informed buying decision, and vice versa. Further, we argue that too much unfiltered information increases the transaction cost and therefore a two-sided platform should focus on giving carefully chosen information relevant to the purchase between the two groups.

Improve information on how Graphiq works

Many of the informants in the research was unsure about the project process when ordering design through Graphiq's two-sided platform. Providing clear information about how the service works is therefore an information strategy that Graphiq should consider. This can be done on the website and/or through emailing the customers.

Customers expressed the desire to see example projects on Graphiq's website as this would give an indication of the quality they could expect to get on the platform. Increasing the information available on the website as described would increase the platform to group value. As the information strategy of showing previous projects completed by designers are not opposed to the designer's requirements one can argue that this is a simple and efficient strategy that Graphiq could benefit from.

The research has uncovered the customer's wish to see what typical design projects cost. Other findings show that different types of design services available through the platform could potentially be offered in packages with a fixed price contributing to the aforementioned wish to see cost for different projects. Based on these findings Graphiq could offer standardized projects to give clear information to the customers and making it easier to make a buying decision. Crafting design packages is a platform-to-group value to both the customers and designers as standardization makes the processes transparent and faster. As both customer and designer are positive to the transparency needed to take advantage of this information strategy it can be said to be viable for Graphiq.

Both customer and designer have expressed the need to have some kind of underlying contract or terms of use for all projects done through Graphiq's platform. The most important factor is that these terms can be used in case an issue should occur. Having clearly stated terms of use, privacy policy and contracts creates trustworthiness through transparency and is therefore an information strategy. Also, being able to create adjustable contracts to reflect the projects is highly valued by the customers. Some projects have specific needs that should be included in a contract. The challenge with creating these terms of use is that some customers and designers might disagree to the terms and hereby not use Graphiq. Accordingly the terms must be be applicable and guide in all situations that may occur. Creating terms of use will increase the platform to group value for both the customer and designers. This emphasizes the importance of crafting thorough terms of use and it will be a resource-demanding task. Creating terms of use as described will demand assistance from a contract lawyer. For Graphiq to use this information strategy the cost of creating the terms of use must be considered according to Graphiq's financial situation in the current seeding stage. If Graphiq doesn't possess the financial resources the strategy should be considered again at the growth stage.

Clear project brief

Many designers have stated a clear value in getting an informative project brief as it makes it easier to know what the customer wants. By helping the customers in creating an informative project brief Graphiq could increase the platform-to-group value. Both customers and designers value a guaranteed quote on before hand of the project and therefore the project brief should include a price quote for the customer and a payout quote for the designer. This gives the customers a security of what they have to pay for the design, and the designers a security of what they are getting paid for the work that can be said to improve the efficiency and drive growth according to Evans (2012).

Creating a thorough design brief for each project is time consuming when the process is done manually. Graphiq should therefore consider which information or technological measures that can be leveraged to reduce the time needed to create each project brief. The findings emphasized this information strategy as viable for Graphiq in the seeding stage. When Graphiq moves into the growth stage, one should consider how the project briefs can be created more automatic by using technology.

7.3 Recommended growth strategies

Based on the analysis of the 12 growth strategy categories we have made a list of recommended strategies for Graphiq to implement based on the criteria that it fits with their overall strategy of offering high quality, fast and to an affordable price, and that it fits with their current stage that is the seeding phase.

The five prioritized strategies are: 1) acquire quality designers (marquee users), 2) implement superior product features (seeding), 3) show portfolios of designers and create clear project briefs (information), 4) secure high quality and fast processes by managing the platform (governance), and 5) acquire customers by leveraging the Slack network (piggybacking).

With marquee designers and governance, Graphiq are able to deliver the quality of agencies which competing platforms struggles to do as they are open to anyone. Further, we recommend Graphiq to focus their offering on smaller design projects that needs to be turned over on a short notice, as this is where a platform model can provide a superior offering compared to agencies. The findings clearly indicates that customers have a need for availability and fast turnover of projects which agencies cannot provide, but a two-sided platform can. Therefore, the designers on the platform should be skilled communicators and fast workers in addition to being skilled designers to match the other platform group's need. This way, Graphiq facilitate great cross-group value by matching the suppliers offering with a demand not met in the market today. Focusing on matching a specific need with a specific supply leads to better matches and greater cross-group value on a two-sided platform. In the seeding phase, where a platform has few users, we argue that this is an effective strategy to create strong network externalities that leads to growth. We argue that offering all types of projects (or versioning in general) is a strategy more suitable for the growth or scaling phase as a means to attract new markets, where the seeding phase is all about attracting the first users to *seed* the platform.

Information, by showing the designers portfolio is a strategy to convince the customers of the quality provided by the platform, which is essential in acquiring new customers that again will acquire more designers due to network externalities. Implementing superior product features enables good communication and fast turnover speed, creating platform-to-group value. Piggybacking on Slack is a cost-effective way of getting access to a large existing network of potential designers and customers to seed the platform.

Combining these five growth strategies in a "stepped, zig zag approach" (Appold & Kasarda, 2011) with the goal of reaching what we call platform-market-market fit is the recommended approach for Graphiq. In general we argue that a two-sided platform similar to Graphiq (B2B service platform in the seeding phase) should emphasize strategies that focus on reaching platform-market-market fit by a cyclical development with shifting focus in between the three elements. In other words emphasize retention over acquisition, making the platform in high value for its users before focusing on acquiring a large quantity of users. This is supported by Evans (2003) who showed that firms who tried to grow large quickly, often failed.

The strategies that are not recommended has fallen out of favour either because they do not match with Graphiq's overall strategy, platform type or current phase. For example subsidizing, pricing and trialability are costly and does not fit well with the quality brand Graphiq wants to build. Further we saw that region specific micro market strategies does not exploit a great potential in exporting design. Envelopment, M&As, licenses and alliances fits better in later stages as they are costly strategies and easierly implemented with a larger user base than Graphiq has today. This can be said generally about all two-sided platforms in the seeding phase, assuming the platform is not well funded in the seeding phase. There was no clear findings pinpointing that a versioning strategy is of high value.

In general, we can say that envelopment, M&As, licenses and alliances are typically not recommended for platforms in the seeding phase due to their costly nature, while all the other strategy categories fits better in this stage. From there, to say which of these strategies are recommended is platform specific, and we recommend using the framework as a model of understanding the nature of the platform along with understanding the platform user groups to prioritize strategies.

8. Conclusion

We have shown with a case study of the two-sided platform Graphiq how you can create growth strategies for two-sided platforms. We have created a framework to understand two-sided platforms better and identified 12 growth strategy categories to easier conceive growth strategies.

How to create growth strategies for two-sided platforms can be summed up in these four steps**:** 1) Diagnose your platform with the two-sided platform framework. 2) Analyse value

creation on the two-sided platform by understanding the platform user groups, for example through interviews. 3) Conceive strategies under the 12 strategy categories based on the feedback from your users. 4) Prioritize the strategies based on your type of platform, and which phase the platform currently is in.

The goal is to reach what we call platform-market-market fit (retention) and to attract new users from current or new markets (acquisition). This leads to growth by network externalities for two-sided platforms.

8.1 Implications

Findings from the research have direct implications for managers, strategists and entrepreneurs that are involved, or work with two-sided platforms. The findings from this paper gives actionable steps that can be taken when working with a two-sided platform to fuel growth. The findings contribute to existing theory on two-sided platforms which is becoming an extremely important business model in the world economy. As there are more and more companies that are enabling themselves of a two-sided platform, this paper can help these companies grow and become successful.

8.2 Further Research

As case study is used as research approach in this study it challenges existing theory and provides an opportunity to investigate new research questions (Saunders et al. 2012). The theoretical framework presented in this study should be further investigated to falsify or increase the validity of the framework. In this study the framework was used as a mean to analyze how to create growth strategies for a two-sided platform. The framework should therefore be used by other researchers to investigate how to create growth strategies for other two-sided platforms.

The researchers of this paper have studied the case company Graphiq that is a B2B, service platform. As the framework (platform type matrix) presents several types of two-sided platforms operating with different deliverables (products, services and assets) in different markets (P2P, B2B and B2C) it opens up for several studies to be conducted. The researchers encourage further studies within all types of platforms to further contribute with more objective and detailed data to help understand how to create growth strategies.

The research also lays the basis for further investigation and expansion of the understanding on two-sided platforms to three-sided platforms as both Evans & Schmalensee (2010) and Rochet & Tirole (2003) also argue is needed. Theory and findings presented in this paper can be used as a foundation to build upon for researchers that want to understand three-sided platforms.

8.3 Limitations

The theoretical framework created is based upon existing literature and is an hypothesis for how one can analyse a two-sided platform to create growth strategies. As it is limited by the literature uncovered in the literature review, there may be relevant and important literature the researchers didn't uncover. Each part of the framework also have its limitations as presented throughout the paper. Models are only a simplification of the reality and in the real world there might be differences that the framework are not able to account for.

As the researchers also are the founders of the case company being studied, their views can have been biased by their knowledge about the company. Means have been taken during the study to decrease this possibility.

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