The Platform Business Model

Solving the Chicken-and-Egg Problem

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Abstract

The use of every multi-sided platform lies in the presence of users on either side of the platform, as that initiates the value creation. During the launch phase, almost all platform service providers face the same challenge of attracting enough users to their platform. This issue is also known as chicken-and-egg problem. Users on one side are attracted to the platform because it enables them to interact with users on the other side. Likewise, the users on the other side wish to interact with users from the other side of the platform.

This study aims to research strategies and tactical decision-making that platform service providers can implement to strengthen their customer acquisition efforts. This study conducts case studies with the Dutch company Skydreams B.V. and the Danish company Codeable ApS.

The study will answer the research questions: (1) *How is a platform business implemented?*, and (2) *How can a platform provider overcome the chicken-and-egg problem?*

In the past, existing literature has already discussed this difficulty, although not as extensively as other areas. Hence, the problem of solving the initial customer acquisition, namely the chicken-and-egg problem, requires more research to be fully understood. The purpose of this thesis to contribute to this research.

The theoretical framework for this thesis is set to analyze which tactical decisions and strategies can be utilized to manage the customer acquisition for multi-sided platforms successfully. Different strategies will be outlined in this thesis and identified and analyzed in the researched case companies.

Appreciation

I want to thank my thesis supervisor, Prof. Suzanne Lauritzen, who agreed to support me in working on the realization of my master thesis. She helped me in refining my focus area and provided me with essential feedback. This feedback helped me to improve my approach to conducting the research used in this thesis.

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1. Introduction

Even though platforms have existed for some time, it is with the emergence of platforms like Facebook, Uber, and Amazon that the concept and the terminology around the topic increasingly gained popularity amongst everyday people. Especially social networking sites have shed light on this seemingly new phenomenon that has changed how many interact with one another. As social beings, the need to interact with others is an innate need that all humans seek to satisfy. By using modern technology, the internet and platform businesses also allow service providers to fulfill this need. (Zhu, Song, Ni, Ren, & Li, 2016). Not surprisingly, this results in a naturally increasing interest in the sharing economy and the emergence of fields like the Internet of Things (IoT). It is a natural desire for humans to interact with one another, either with like-minded people for the sake of joy or entertainment, or in the form of value exchange. The International Telecommunication Union (ITU) estimates that around 3.9 billion people (51.2% of the world's population) used the internet in 2018 (Appendix A). The fact that countries like India, Mexico and Indonesia top the list of countries with the highest number of active Facebook users shows that the need and the desire to connect and interact spans all cultures and religions. ("Facebook users by country," 2019).

One of the main characteristics of modern platform businesses is that they have become increasingly efficient at facilitating interactions amongst many different user groups, whether the interactions are socially motivated or business-related. With growing numbers, an interesting aspect of platform businesses is the occurrence of network effects. Network effects can be essential for the success of a platform business, as they can provide the platform with a lot of value. These network effects occur as same-side or cross-side network effects in which the user groups affect one another. It is at this intersection, where the initial challenge for all platforms lies. Eventually, every platform needs to reach a critical mass to establish itself as a provider of value for the different user groups that interact on the platform.

This challenge is best known as the chicken-and-egg problem and constitutes the focus area for the research presented in this study. While there is not a single solution for this challenge, as all platforms are unique and combine different resources, people, and ideas,

there are strategies that platform service providers can implement. This thesis will examine two companies and analyze which approach each company utilized.

1.1 Motivation for the Study

As platform businesses have established themselves in many industries already, and as they keep expanding and keep attracting users, the interest in these types of platform businesses is higher than ever before. However, the existing literature, as well as the public discourse, do not seem to give the same value and efforts to each step that a platform business has to go through along the way. While most people know that Mark Zuckerberg started Facebook from his dormitory at Harvard University, and Jeff Bezos started Amazon from his basement, very few people understand how these hugely successful entrepreneurs went about the next steps that were crucial for building these platforms. The public eye seems to lack a clear view of the entire development, as there is a focus on the founding story, from where most people jump to the situation as-is today, neglecting the crucial steps in-between. This approach fails to acknowledge and understand cases of platform providers that were not successful. However, it is vital to create awareness about the struggles and hurdles that are specific to this kind of businesses. Overlooking this aspect creates a lack of potential learnings for students or anyone else who desires to fully understand the dynamics of the platform business model and its challenges.

Amongst many challenges, it is most notably the so-called *chicken-and-egg problem* that plays an essential role in the creation of any platform business. Current literature – apart from the book *Platform Revolution: How Networked Markets Are Transforming the Economy* (Parker, Van Alstyne & Choudary, 2016) – mainly focus on the dynamics playing out on platforms that have overcome the struggles of the launching phase and already acquired the first users on their path to reaching a critical mass.

This thesis utilizes the existing literature to examine the dynamics of platform businesses and aims to add value by obtaining more knowledge on how to solve the chicken-and-egg problem.

1.2 Definitions of Two-Sided Platforms

A platform is a structure in which multiple groups can interact with each other and engage in the exchange of goods, knowledge, transactions, and different types of interactions. Before the age of the internet, the dynamics similar to the ones found on platforms today were present marketplaces, malls conferences, or other gatherings. With the emergence of the internet and the adoption of the internet by a steadily growing amount of people, those dynamics have been digitized and transferred to different types of online platforms.

The modern understanding is that platforms represent a unique kind of business that aims to create value by using advanced technologies to create connections and facilitate interactions between people and organizations (Parker et al., 2016). The facilitating of interactions is also the main characteristic of platform businesses, that is, it provides the infrastructure for a specific market, in which different user groups that are attracted to each other can interact (Eisenmann, Parker & Van Alstyne, 2006).

According to yet another definition by Hagiu and Wright (2015), a multi-sided platform enables direct interactions between two or even more distinct user groups affiliated with the platform.

In the past years, many two-sided platforms were created, and services such as Uber, Airbnb, and Just Eat, which all are examples of two-sided platforms that match user groups who are attracted to each other. Typically, some transaction or exchange takes places in the platform business model. It is from these transactions and transfers that the value in platform businesses emerges (Parker et al., 2016). In recent years the platform business model has increasingly gained popularity and in many markets now functions as the intersection where supply and demand of the different user groups meet.

1.3 Research Questions

It is necessary to build any research design around thoughtfully formulated research questions. Research questions then allow for more depth and clarity and enable the researcher to be efficient at studying a particular topic.

Sandberg and Alvesson (2011) have elaborated on an approach to research, which explains different ways of drafting research questions. More specifically, they coined the methodology of “gap-spotting” in which they identify three different models on how a

researcher can go about identifying a focus area; (1) *confusion spotting*, which evaluates and examines competing explanations and aims to gain insights on similarities and differences, ultimately leading to a better understanding of the topic at hand; (2) *neglect spotting*, which focuses on overlooked and under-researched areas, and tries to extend existing knowledge and research; (3) *application spotting*, which similarly to the neglect spotting focuses on enhancing and complementing existing literature, though without the focus on overlooked or under-research areas.

As a prolongation of the previously mentioned void in the literature, this thesis utilizes the gap-spotting approach *neglect spotting*, as described earlier. Thereby, the research presented in this thesis shall examine the under-researched and slightly neglected field of the initial customer acquisition, which is crucial in understanding modern platform businesses.

By using the neglect-spotting, this thesis aims at answering the following questions:

1. How is a platform business implemented, and how does it create value?
2. How can a platform provider overcome the chicken-and-egg-problem?

This thesis collects and analyzes data from two different platform service providers; (1) Skydreams B.V. from Utrecht, Netherlands, and (2) Codeable ApS from Klampenborg, Denmark.

By gathering data from these two platforms, this thesis aims to analyze how it is possible for platform service providers to deal with the chicken-and-egg problem, and what strategies the entrepreneurs can use to solve the problem. The best way of doing so is by conducting interviews with key persons with executive level responsibilities, who engage with the platform since its inception. The thesis elaborates on a theoretical framework based on existing literature, which rounds of the research by analyzing the interviews and highlighting their implications.

1.4 Structure of the Thesis

The introductory chapter presented an introduction to the research field as well as the motivation and the focus of this study. The second chapter describes the chosen methodology for the data collection and the analysis of the obtained data. Chapter 3 consists of an overview of the literature on two-sided platforms and the main traits that

such platforms display. Furthermore, the chapter emphasizes several customer acquisition strategies that can solve the chicken-and-egg problem. Chapter 4 analyzes the case companies Skydreams B.V. and Codeable ApS. The analytical part draws from the literature overview presented in the previous chapter. Chapter 5 presents the findings and how this thesis contributes to the existing literature. Finally, chapter 6 concludes the thesis and suggests future research opportunities.

1.5 Sub-Conclusion

This chapter introduced the topic of the study and the motivation for choosing this particular research field. It introduced the platform business model and illustrated the chicken-and-egg problem, one of the most common challenges for modern platforms. Finally, the chapter provided an overview of the structure of the thesis.

2. Method

A qualitative approach and a multiple case study of two platforms are the basis to fulfill the research presented in this thesis. This chapter explains the data collection method as well as the research design, and the reasons for choosing case studies to conduct the research.

2.1 Research Design

This section explains the research design that is used as a systematic framework in this thesis and describes the procedure data collection as well as the data analysis.

2.1.1 Qualitative Research

When choosing the research methodology, it is vital to consider the use of materials and theories, as well as how the data was collected and analyzed (Creswell, 2003). This study is based on qualitative research in the form of in-depth interviews as part of the case studies. According to Stake (1995), in qualitative research, a researcher can use a case study to explore behaviors, procedures, and processes of individuals as well as organizations. Marshall and Rossman (2006) indicate that researchers who follow a qualitative research approach intent to understand the meaning and essence of an incident, circumstance, or experience from the research participant's view.

2.1.1.1 The Trustworthiness of Qualitative Research

Sinkovics, Penz and Ghauri (2008) suggest that it is possible to use an interview-based qualitative research approach to achieve an enhanced quality of results by considering factors, such as:

1.	Literature review & problem definition
2.	Building on established theory and research design
3.	Validity constructions by using multiple sources of evidence (literature, interviewees)
4.	Relevant subject selection and providing interviewees with information about the interview beforehand
5.	Interview agenda
6.	Interview recording & transcription
7.	Data analysis
8.	Discussion (comparison of results to existing literature, both similar and conflicting literature)

The author kept these guidelines in mind from the very beginning of the thesis, which helped in assuring consistency and loss of quality of the research.

2.1.2 Quantitative Research

As opposed to the qualitative research approach, the quantitative research approach suggests that it is possible to examine a phenomenon objectively and base it on empirical data. The quantitative approach usually aims to obtain more substantial amounts of data that are representative as well as independent and free of the researchers' perception (Sale, Lohfeld & Brazil, 2002). According to Datta and Vaid (2018), it can be of use to combine the qualitative and the quantitative approach in some cases, as they can complement each other. For instance, if the researcher aims to enhance the results from the qualitative research by adding depth to the study, it is possible to support those findings with a quantitative survey.

2.1.3 Additional Data and Observations

For this thesis, publicly accessible as well as internal information about the case companies was accumulated and examined. For example, the services provided by the two platforms,

that is, the websites of the respective companies were reviewed to get a better understanding of the user experience for either of the user groups. Even though this thesis builds on data obtained through qualitative research, two quantitative surveys were conducted to understand the findings even better. The surveys focus on the customer satisfaction on Skydreams' platform Homedeal, and the motivation for joining the platform, which provides further insights about the service professionals' degree of satisfaction with the platform, as well as their reason for using the platform.

2.2 Data Collection

2.2.1 Case Study

The research presents case studies that arose from the collaboration with the Dutch company Skydreams B.V. and the Danish company Codeable ApS. The case studies allow for a better understanding of how to solve the chicken-and-egg problem, thus effectively answering the research questions presented.

The research for this thesis follows a definition of a case study coined by Simons (2009):

"Case study is an in-depth exploration from multiple perspectives of the complexity and uniqueness of a particular project, policy, institution or system in a "real-life" context. It is research-based, inclusive of different methods and is evidence-led."

2.2.2 Selection of Case Companies

This thesis selected a total of two case companies that help in fulfilling the purpose of the research. To be considered as a case company, the companies in question needed to live up to mainly two requirements; (1) The company needs to be a platform service that caters to a two-sided market, and (2) the interviewee must be a person who holds an executive role and who has been with the company since the inception. The reason for this is that it allows for reliable data to be obtained which is essential to answer the research questions. Interviewees who live up to that requirement at each of the companies agreed to conduct an interview, and therefore, Skydreams and Codeable are appropriate choices for the case studies in the thesis.

2.2.3 Interviews

The first interview took place with Mark Feenstra, who co-founded the company with the current CEO Luis Verbakel. Mark holds the position of the Chief Financial Officer and has

been with Skydreams from the very inception of the company in 2002. The interview was set to last approximately one hour and took place at Skydreams' offices at 10:00 AM on the 18th of February 2019.

The semi-structured interview consisted of ten main questions, and additional sub-questions arose during the 1-hour long interview. The length of the interview ensures that the answers contain sufficient details to provide valuable insight and enough information in the pursuit of answering the research questions.

The second interview featured Per Esbensen, CEO & co-founder of Codeable ApS who co-founded the company back in 2011 with Tomaz Zaman. The interview lasted slightly less than an hour and was conducted on the 22nd March 2019 at 11:00 AM via a Skype video call. As the first interview, this interview was semi-structured and was guided by the initial questions (Appendix B), while leaving enough space for the interviewee to further unfold and reveal his thoughts during the interview.

In the pursuit of ensuring a proper data collection, preparations were implemented – as mentioned by Yin (2009) – in the form of a short data collection protocol. For the first interview, this included the use of a smartphone to record the full length of the meeting, whereas the second interview came about via Skype and its in-app recording feature.

The researcher can interview members or participants of a given environment and thereby obtain the same knowledge as well as an equally profound understanding of the subject matter as the interviewees themselves. With this approach, the researcher can also seek to understand the motivation and inspiration that triggered the interviewee's actions (Gubrium, Holstein, Marvasti & McKinney, 2012).

2.3 Data Analysis

Upon finalizing the data collection, the theoretical framework was used to analyze the data. The conceptual framework consists partly of the literature that has been read and analyzed during the entire master studies in the Organisational Innovation and Entrepreneurship program at Copenhagen Business School, but it also includes additional literature that was deemed relevant at the author's discretion.

2.3.1 Within-Case Analysis

The case studies form the basis for this thesis, and the choice of the method used to analyze the data is of utmost importance. The analysis of the data obtained from the qualitative interviews builds on a within-case analysis. This approach takes an in-depth look at the company at hand, which leads to reliable and trustworthy results. The in-depth interviews build on the theoretical framework that chapter three outlines and provide a good understanding of the companies' early days and their efforts in solving the chicken-and-egg problem.

There are two reasons for only choosing a within-case analysis, as opposed to a cross-case analysis or even a mix of the within-case and cross-case analysis. The first reason is that in qualitative research there most often is a primary focus on specific processes and events that take place within the boundaries of each case (Goertz & Mahoney, 2012). Even though the case companies all move in a similar direction in terms of the dynamics of their platforms, they all do so with a different approach, which is why the author thinks that it is of higher value to analyze each specific case by itself. The second reasons for only choosing a within-case analysis is an extension of the first reason and has to do with the number of case companies included in this research. According to Goertz and Mahoney (2012), a cross-case analysis only is of value if the number of subjects is high enough to be able to distill essential implications and learnings from the obtained results. However, this thesis included two case companies, which is why the author chose to focus solely on a within-case analysis for each case company.

2.4 Sub-Conclusion

This chapter presented an overview of the methodological approach for this thesis. The chapter described the qualitative approach and how the author chose to utilize it for the data collection in the form of qualitative interviews. The chapter provided an overview of the structure of the interviews and the technical means used to realize the recording of the conversations. Furthermore, the chapter highlighted the reasoning behind choosing the method of a within-case analysis as the preferred method for analyzing the obtained data.

3. Theory

This chapter presents the theoretical framework for the analytical part of the study. The structure of the theoretical framework serves as a basis for this thesis and builds on literature that focuses on the inception and implementation of two-sided platforms, as well as the challenge of overcoming the initial customer acquisition. At first, this chapter includes a literature review that helps in understanding the emergence and the evolution of the platform business model. The literature included in this thesis also provides relevant definitions of two-sided platforms businesses and describes the dynamics and the interplay of different user groups that takes place on platforms. Then the chapter goes on to identify the characteristics of and the difficulties in dealing with the so-called chicken-and-egg problem. The final section of this chapter not only reviews the existing literature on what is necessary to be able to launch a two-sided platform business, but it also aims to highlight and partly fill the gap that the author identified in the existing literature regarding the chicken-and-egg problem and how the problem can be solved.

3.1 The Two-Sided Platform

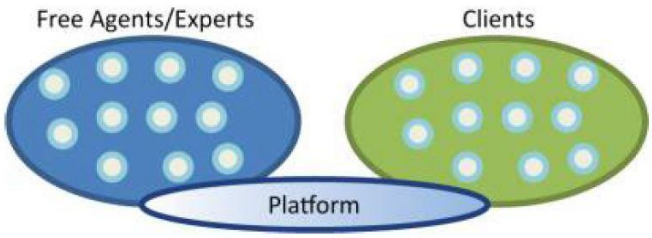
Chesbrough and Rosenbloom (2002) described the business model as the company's position inside a value network which links producers and consumers together. They furthermore describe the business model as the very structure of the value chain that is required inside the company, enabling it to succeed in the creation and distribution of its offerings.

A comparison between one-sided markets and platform businesses shows a difference in the value chain. Whereas there is a one-way value chain in one-sided markets, the value chain in the platform business model goes in both directions (Zhu et al., 2016).

The two-sided market emphasizes the interaction between multiple entities, which ultimately creates value for both user groups. The platform acts as a full-fledged intermediary, as it provides the opportunity for interaction as well as a set of rules that facilitate a good user experience (Zhu et al., 2016).

However, an essential distinction between a one-sided market and a two-sided market is that the two-sided market can experience network effects. Network effects suggest that the increase or decrease of one user groups size will inadvertently affect the other group.

This leads to the realization that a two-sided platform business consists of at least three types of *agents* (Kumar, Lifshits & Tomkins, 2010), that is, users on one side (at Skydreams the service professionals, at Codeable the WordPress developers), on the other side the end user who is looking for service professionals, and lastly the platform itself.



(Anderson & Van Wijk, 2010)

As Anderson and Van Wijk (2010) describe it, the desire of different groups to interact with one another leads to a void that allows for intermediary service providers to step in, forming a triangular relationship between the two user groups and the platform.

Two-sided markets come into existence when two different user groups hold goods or knowledge that they seek to exchange, or when they want to make use of specific services or products. Even though the various user groups approach the two-sided market with a distinct interest, one of the essential aspects to keep in mind for any two-sided platform is the importance of creating and capturing value for either of the user groups (Parker et al., 2016). It is crucial for the long-term success of a platform to create a balance between demand and supply and to guarantee that everyone who engages with the platform receives value. In general, every business is part of an ecosystem that constitutes a value network for its participants. As part of an ecosystem, platforms connect several user groups in the ecosystem while giving them the option to participate and actively create and capture value.

This trend is well observable when looking at the biggest companies in the world today, and Senyo, Liu, and Effah (2019) also coin it as the emergence of *digital business ecosystems* (DBE). The concept of DBEs describes an environment in which several different entities together create value by leveraging new information and communication technologies. DBEs transcend industries and leverage resources – often in the form of state-of-the-art technology – to satisfy the customer as well as producer needs, and they play a vital role in distributing the demand and supply of different markets. This role is essential to keep in

mind, as platforms may cater to a specific market. However, that market very likely is part of a larger DBE. Platform service providers must always be on the lookout for opportunities and threats that might arise from directly within their market, as well as from adjacent markets. In the field of platform businesses, this could most notably result in platform envelopment as described by Eisenmann, Parker, and Van Alstyne (2011).

3.2 Market Context

The success of any platform is tightly related to the market it wishes to target. According to Blair, Sokol and Kaplow (2014), the first step in choosing the best market is to conduct a market segmentation, thereby defining a *broad* or a *narrow* market. Observations from the past show that the occurrence of friction in a specific field is often the driving force that leads entrepreneurs to pursue the creation of something novel. Often, they encounter particular issues and identify an unmet need to which they develop a better solution.

If there indeed is enough friction present in a two-sided market, there is a chance of establishing a platform business which solves that need. However, in these modern days, many industries have already been targeted by entrepreneurs who aim at building a platform in those markets. Therefore, the competition in those markets in which platform services could potentially succeed is usually rather high. If the goal is to establish a platform, it is essential to analyze whether there is enough friction in the market for a new solution to succeed, and if so, whether competition already exists, or whether competitors think about targeting the same market niche.

Most of the successful platform companies that exist today have successfully identified the need they want to solve, as well as dealt with the competition, often through differentiation and by introducing something novel that changes the market and increases the value for everyone involved.

3.3 The Chicken-and-Egg Problem - User Acquisition Tactics

As we have come to learn by various examples in the past decade, two-sided platforms can have a significant impact on different industries by facilitating the interaction of user groups in a given market. However, it is usually a step-by-step process that platform service providers need to follow to establish their platform in such a strong position. One of the crucial steps in doing so is the initial customer acquisition, which is essential for the

endeavor of launching and establishing a two-sided platform. This challenge is also referred to as the "chicken-and-egg problem" (Caillaud & Jullien, 2003), a phenomenon which is at the very core of this thesis.

The big difference between launching a traditional one-sided business as opposed to a two-sided is that the two-sided platform is dependent on involving both user groups from the very beginning. Users from side A do only want to engage with the platform if there are enough users on side B, and vice versa. Therefore, the platform service provider needs to develop an approach that convinces at least one of the groups to start engaging with their platform. Success in doing so will, in turn, attract the other group, thereby laying the foundation for network effects in the future (Eisenmann & Hagiu, 2007; Hagiu & Wright, 2013).

To achieve this result, a platform service provider can use a platform strategy to create these synergies and ultimately create value for its users. The platform strategy is a rather novel strategy in the field of organization and innovation and spans numerous industries. Applying a platform strategy makes it possible for some companies to create incredible amounts of profits, as their model usually is highly scalable and can mediate the interaction between hundreds of millions of users, as seen in some of the world's wealthiest companies like Amazon, Google or Facebook.

As explained in the previous chapter, the network effects that may arise for platform businesses pose difficulties that companies traditionally did not face. This section presents strategies as described by Parker et al. (2016) that may enable companies to succeed in the initial customer acquisition as well as foster and deal with network effects, which is a mixture that could ultimately help in defining a solution that solves the chicken-and-egg problem.

3.3.1 The Follow-the-Rabbit Strategy

The name of this strategy derives from a previous accomplishment of the company Intel, who partnered with the Japanese company NTT and established a successful collaboration. This strategy describes the process of taking a proven non-platform project and turning it into a platform. For instance, Amazon started as a non-platform project that over time had demonstrated and proven its success and then converted itself into a platform by launching the Amazon marketplace that attracted merchants and consumers. This strategy is similar to

the *staging* of a platform, as described by Eisenmann and Hagiu (2007). Van Alstyne, Parker and Choudary (2016) also describe that a company can function as a *pipeline* business, in which value moves from right to left, and at the same time it can operate as a platform. Apple's device business is a pipeline business, but combining it with the App Store transforms into a platform business.

3.3.2 The Piggyback Strategy

Another strategy that is suggested by Parker et al. (2016) is the piggyback strategy. When using the piggyback strategy, a platform service aims to establish a connection with the user base of another platform to leverage that user base for its success. A very well-known example of a successfully implemented piggyback strategy is how PayPal established a collaboration with eBay and thereby was able to benefit from eBay's existing user base. Another famous example is Airbnb, who leveraged the user base of Craigslist to increase the number of their listings as well as the engagement with their site. With the piggyback strategy in place, a platform service provider might be able to take a shortcut when trying to solve the chicken-and-egg problem.

3.3.3 The Seeding Strategy

Another strategy that can be very effective in solving the chicken-and-egg problem is the seeding strategy. The reason why this strategy can be so effective is that it can be used to simulate and initiate activity on the platform. This activity may help in creating an incentive for new users to join and engage with the platform. A famous example is how Google promoted the Android operating system. Google offered huge prizes and thereby created an incentive for developers to engage and participate in the development of great content for Android. Additionally, sites like Reddit or Quora used this strategy to simulate activity on their respective platforms by acting on behalf of both user groups and creating engaging content, which ultimately convinced new users to join the platform.

3.3.4 The Marquee Strategy

The marquee strategy focuses on an important user group that is vital to the platform and through its mere presence can lead to great benefits, while its absence can result in great losses. An important example hereof is the collaboration that many gaming console producers have with the video game company Electronic Arts. Electronic Arts are the maker of the world-famous EA Sports series and are the absolute leader in sports games. Hence,

the company enjoys a large group of loyal fans. Without this considerable number of users, the platforms would likely suffer significant losses, as the sports games are highly prominent amongst gaming console users. Another example is Microsoft, who bought out a company called Bungie from developing games solely for Apple computers, and instead had it develop the largely successful game Halo exclusively for their Xbox, which then became a worldwide success.

3.3.5 The Single-Side Strategy

The single-side strategy is in a way an extension of the follow-the-rabbit strategy. The goal is to produce or create a service that benefits one of the user groups. By achieving this, it is then possible for the platform provider to attract the other user group who desires to interact with the first user group. Whereas the follow-the-rabbit emerges out of earlier successful experiences and develops from there, the single-side strategy is an approach in which the platform provider from the beginning consciously chooses to satisfy one of the user groups. The presence of that user group on the platform then triggers engagement from the user group on the other side. The best example of successful execution of this strategy is the platform OpenTable, who started by developing software that they then distributed to restaurants. Once they had enough restaurants signed up, they then were able to focus their efforts on attracting users to the other side.

3.3.6 The Producer Evangelism Strategy

This strategy aims to design a platform that can attract producers, who then ultimately attract their customers also to join the platform. Good examples hereof are companies like Kickstarter, GoFundMe, and Patreon which provide producers different kinds of tools via their platform, with which they can promote their product or service.

3.3.7 The Big-Bang Adoption Strategy

This strategy follows a more traditional approach, as it has a strong focus on marketing and exposure. Examples of successful platforms who have followed this approach are Twitter and Tinder. Twitter stood out with their service at the SXSW 2007 after having invested $11,000 in screens where people could see their engagement with Twitter in real time. This setup created curiosity and ultimately engagement and is something that until this day decorates the lobby of the Twitter headquarters in San Francisco. The location-based dating app Tinder reached critical mass in 2012 after launching at a Sothern California frat party,

where many people from their target group were intrigued to try out the app. However, to successfully follow this strategy, the right opportunity like a big event might be necessary to execute the strategy.

3.3.8 The Micromarket Strategy

The micromarket strategy aims to target a small market niche whose users ideally already interact with each other in a closed community. One example hereof is how Facebook focused started. Facebook focused on launching the platform in the local community of Harvard University where users already interacted and were willing to improve their interactions by using Facebook. As a prolongation of the micromarket strategy, Facebook then first expanded to other universities to gain further traction, eventually opening to the broad public. The micromarket strategy can reduce the critical mass needed to solve the chicken-and-egg problem.

3.4 Network Effects

One of the most important distinctions to be made when determining the differences between platforms and one-sided markets is the occurrence of network effects. Network effects describe dynamics that may arise in platform businesses. There are two types of network effects that can take place on a platform, namely same-side network effects and cross-side network effect. Same-side network effects are used to describe a change in the size of one group which directly impacts that same group and all of its members. Cross-side network effects describe how the change in the size of one group directly impacts the other group that is present on the platform. Both same-side network effects and cross-side network effects can be either positive or negative. Therefore, the success of the platform very much depends on its ability to deliver satisfying results for all involved parties. If the platform manages to create value consistently for its users, it thereby secures its own continued existence and might foster positive network effects. On the contrary, the failure of delivering value might result in negative network effects and the demise of the platform.

Zhu et al. (2016) elaborate that it should not be the primary concern for the platform service providers whether there are only two or even more user groups present on the platform. For them, the goal must be to create a beneficial outcome and establish a network for shared growth either way, regardless of the number of user groups.

3.4.1 Same-Side Network Effects

A typical example that is used to illustrate the occurrence of same-side network effects is the telephone. One single phone by itself holds no real value for the owner of the phone, as he or she would not be able to call anyone. However, if there is more than one phone in circulation, the value of the phone increases and does so even further with every new phone. The more phones are in use, bigger the network and the more options to connect. Hence, the value for the group of phone owners increases with each new user that joins the same group. Another modern example of same-side effects are the online networks of gaming console, such as the Microsoft Xbox or the PlayStation consoles. These consoles became capable of accessing the internet and thereby enabled users to play games online against other users. This development sparked a massive same-side network effect for the gaming consoles. Whereas there were not as many users in the beginning who actively used their console to play online against others, today it has become an essential part of gaming consoles. There is an entire community on either of these gaming consoles that are committed to playing online against other members, even so in official tournaments that specifically organized for this purpose. Today, every owner of an Xbox or a PlayStation can almost instantly find someone else in the network to play against, regardless of where in the world the other player connects to the system.

3.4.1.1 Positive and Negative Same-Side Network Effects

However, it is vital that these same-side network effects can have positive as well as negative consequences. While the above examples of the telephone and the gaming consoles are positive same-side effects, there can equally be negative same-side effects. To illustrate this, a brief look at any of the world's biggest e-commerce platforms like Amazon and eBay is enough. While a large number of customers is intriguing for sellers and tempts them to join either of the platforms. Depending on which market they cater to and which platform best suits their needs, this might lead to a negative same-side network effect for the sellers as well as the consumers. If potential customers are waiting on the platform, more sellers will attempt to join and try to target those customers, creating a much higher competition amongst all the sellers, which may result in a negative same-side network effect, as it becomes harder for the sellers and consumers to find each other.

3.4.2 Cross-Side Network Effects

One characteristic of cross-side network effects is that the two distinct groups attract and somewhat depend on each other. The value of two-sided network effects lies in the number of users on the other side. A modification of the gaming console example from the previous section helps in illustrating this. As the game developers need many users to purchase their games to make a profit, they only develop games for gaming consoles that already have a significant number of users. On the other hand, users prefer to use gaming consoles that offer a wide variety of games to choose from (Eisenman et al., 2006).

While challenging to achieve, it is necessary for the platform provider to attract enough users on the subsidy side to create cross-side network effects. If the platform manages to do so, the users on the money-side will gladly pay to interact with the subsidy side. Hence, the platform service provider must deal with the challenge of deciding which side to subsidize and to what degree. The costs of supporting one side need to be recovered and exceeded by the money side for the platform to be profitable and sustainable (Eisenmann et al., 2006).

These types of transactions occur in a relationship in which an intermediary platform facilitates the interaction between the two user groups. This intermediary platform does not only serve as a framework to exchange products, services, and information, but it also governs all of these activities by enacting laws and regulations as well as their own rules. Such platform services usually create two types of network effects (Eisenmann et al., 2006).

3.4.2.1 Positive and Negative Cross-Side Network Effects

As opposed to same-side network effects, a characteristic of cross-side network effects is an increase of the user number in one user group, which then either positively – as in the above example of the developers and gamers – or negatively affects the other user group. An example mentioned by Parker et al. (2016) is the Visa card. The more spread the Visa card is, and the more merchants accept to process transactions with it, the more valuable the card becomes for the consumers, as they can use it in more locations.

However, cross-side network effects can also be detrimental. A good example hereof is the increase in the user base of platforms like Uber. While Uber is very much interested in expanding its driver and passenger base, the company must find a healthy balance. If there are too many drivers on the platform in proportion to the passenger, the drivers may have

to wait too long until they get a client, which might urge them to abandon the platform. On the contrary, if there are too many passengers in proportion to the drivers, the passengers may abandon the platform due to a too long waiting time for a ride.

3.4.3 Frictionless Entry

Parker et al. (2016) describe the concept of *frictionless entry*, which highlights the importance of designing a smooth entry to the platform for participants of both user groups. Frictionless entry means that the very first interaction with the platform should be as user-friendly as possible and leave a good impression. As an example, they mention the early days of Yahoo compared to Google, and why Google ultimately succeeded. Yahoo functioned as a human-edited database that could not scale quickly enough when the demand of the internet increased. Google, however, managed to facilitate a smooth entry by leveraging their PageRank algorithm to structure their database, allowing them to scale and grow their database quickly. The growth of a platform can also take place via *side switching*, which means that users of one side of the platform join the other side of the platform. This approach is also part of Uber's tactics, as they recruit passengers to become drivers themselves. However, several factors form the basis for a frictionless entry, which will be elaborated on in the following sections.

3.4.4 Liquidity

Every two-sided platform needs to attract enough users on both sides to create value. The desired state for an early-stage platform to be in is what has been coined as *liquidity* by Parker et al. (2016). In a situation where liquidity is present, a minimum number of users engage with the platform, while there is already a high amount of successful interactions. In the state of liquidity, the interaction between the users runs smoothly with little to no errors, failures, or obstacles, while the users' intents are satisfied within a short amount of time. Such an overall positive experience might lead to what Parker et al. (2016) call a *positive feedback loop*¸ which means that the user experience was good enough so that the user wants to return. An example of a positive feedback loop took place in the initial days of PayPal, where customers used PayPal for the first time, and the ease of use convinced them to use it repeatedly.

3.5 Facilitating Interactions

Apart from attracting users to a platform, it is equally important to satisfy and retain these users as active participants on the platform. A positive feedback loop can lead to positive network effects and ultimately grow the platform's user base efficiently. Platforms provide the infrastructure for two user groups to interact with each other, which can range from different project management tools to automatically drafted contractual agreements, or communication and collaboration tools of different kinds. Since the goal of the platform is to facilitate transactions that create value, it is essential to reduce transaction costs. The freelance platform Upwork, for example, does not only act as an intermediary who connects project owners with freelancers, it also resolves disputes and sometimes even pays both sides. This may incur a cost for the platform, but it efficiently reduces the friction between the two other groups, resulting in a better user experience of the platform, as the quality of the interactions significantly increases.

3.5.1 Matching Quality

The matching quality of a platform is of utmost importance when it comes to analyzing the user experience as well as the efficiency of the platform in creating value. For delivering a satisfying experience, it is essential to establish a considerable matching quality. By measuring the accuracy and efficacy with which the platform performs the matching of its users, it is thereby also possible to investigate the intuitiveness of a platform as well as the overall user experience. It is a good indicator for the performance of the interactions, and it also shows how much time and effort users need to spend to reach the desired outcome of their interaction with the platform. The platform provider can then measure the efficiency using *key performance indicators* (KPI) such as the conversion rate and determine, whether the results are satisfying or not, that is, whether the matching quality is high or low.

3.5.2 Trust

Another metric that can be used to determine the performance of a platform is *trust*. For platforms, trust indicates the degree of risk that users are willing to take when interacting on the platform. The better the curation of the platform users, the higher the trust in the platform will be. It is an essential part of any platform and needs to be taken very seriously if the platform is to succeed long-term. As described by Padua (2012), it is essential for users to experience a feeling of security and interactions free of risk. The key to establishing

trustworthiness lies in managing information, the platforms reputation, as well as the expectations that the different user groups have. If important information is missing or the company has a bad reputation, it gets difficult to build a loyal relationship with the users.

The users need to know that they do not face any risks and rather effortlessly can interact with users on the other side, or they will likely abandon the platform. Furthermore, a lot of personal information and sensitive data is processed and stores by platforms, which increases the level of trust it must display for users to share their knowledge in the first place. One way for platforms to increase the trustworthiness is to implement a reliable review system with verified reviews.

3.5.3 Multihoming and Switching Costs

One aspect that platform service providers must be wary of is the occurrence of multihoming and switching costs amongst their users. The concept of multihoming (Hagiu, 2014), describes a situation in which an individual or an organization, for example, offer their services via more than one platform. Hence, they incur multihoming costs. In Denmark, restaurant owners might simultaneously list their restaurant and offer their products on Just-Eat.dk as well as on Hungry.dk. In turn, if they decide to only register with one of the platforms, this would mean that they are singlehoming. To have users choose to engage in singlehoming is often desirable for platform service providers, as it might keep users from engaging with competitors. Similarly, the users can benefit from a singlehoming situation, if for example, two platforms offer similar products, and using both platforms would not benefit them in by providing a broader product selection or other services, but only result in higher costs. According to Eisenmann et al. (2006), multihoming costs make it more unlikely for users to use multiple platforms, unless there is a good reason for doing so, that is, the quality of the platforms is high, while the offerings sufficiently differentiate from each other.

Switching costs are the costs that users incur if they want to stop using one platform in favor of another platform. The user could then potentially incur switching costs through a registration or membership fee on the new platform (Parker et al., 2016).

According to Parker et al. (2016), it is an advantage for new entrants in the market, if the multihoming and switching costs are low, as it then will be easier for them to increase their market share faster.

3.5.4 Differentiation

According to Eisenmann and Hagiu (2007), the chance of a winner-takes-all-market to arise is bigger if neither of the user groups demands products or services that are too differentiated. At the same time, if the users request products or services that require too much effort, investments or other capabilities to be fulfilled by a single platform service provider, a gap for new entrants opens (Eisenmann & Hagiu, 2007). Parker & Van Alstyne (2014) also emphasize the view that specialization and niche targeting can eventually lead to new entrants establishing themselves in the market by exposing and acting on gaps they previously identified.

3.5.4.1 Revenue Models

Caillaud and Jullien (2003), as well as Hagiu (2006), find that another approach for differentiation is the implementation of a revenue model that is different from the ones that competitors use. There are many different revenue models for platforms, and sometimes they consist of several sources of income (see Appendices C, D,E,F,G), such as paid advertisement (Facebook and Alphabet), third party online sales commissions (Amazon), product sales such as the iPhone (Apple), Office-software (Microsoft) ("How the Tech Giants Make Their Billions," 2019). This overview shows that the revenue model can be diverse, but it can also build on a single service or product, depending on the type of service or product the platform offers.

Some platforms may also offer freemium models, where a free trial or limited access allows users to get a feel for the platform, whereafter they can upgrade by changing to a premium version, thereby unlocking more features. On the freelance platform Upwork, freelancers can register and apply to projects that have been posted by clients. For a freelancer to be able to join, it is required to pay with the Upwork currency called *connects*. The amount of connects that a free user has at his or her disposal are dependent on the membership plan (Appendix H) the user receives 60 connects each month, and once the user runs out of connects, it is then possible to purchase additional connects. As a premium user, the user receives 70 connects, and if no connects are left, it is also possible to buy more connects at any time. Additionally, the platform works with an escrow service to secure all projects, and to collect a service fee before transferring the remaining amount to the freelancer's account. On the other side, the platform also charges the clients, who can engage with the

platform using a freemium as well as a premium account which extends their options for interaction with freelancers (Appendix I). In addition to the illustrations on the several sources of income of the biggest tech companies in the world, the example of the revenue model of Upwork shows in more detail how versatile the revenue model for platform businesses can be when in the maturity stage of the platform.

3.5.5 Governance

Even though platform service providers are interested in attracting many users, it is necessary to put in place rules and regulations that facilitate any interaction that is to take place on the platform. The governance prevents illegal activities from happening, and it increases the trustworthiness of the platform so that users will perceive in a positive light. Ultimately, the goal of platform governance is to distribute the created value evenly and to manage it reasonably, so that each participant who adds value also receives value (Parker et al., 2016).

Rules regarding the type of users who can participate in a platform are usually part of what is also called *governance*. It describes the procedures that the platform provider has put into place to ensure that value is delivered and distributed evenly, as well as to resolve conflicts that may arise amongst the user groups.

3.6 Employing the Theoretical Framework

The theories that have described in this chapter serve as the theoretical framework that will be used to analyze the case companies in the following chapter. It will briefly touch upon the market situations in which the two platforms originated and after that examine each of the companies' approach to solving the chicken-and-egg problem as well as paving the way for network effects to arise, achieving liquidity and reaching the critical mass. After that, it will also analyze the measures for platform governance that either of the platform service providers have implemented to increase trust, reduce friction and miscommunication, as well as any fraud.

3.7 Sub-Conclusion

This chapter presented the theoretical framework for the thesis. It provided an overview of the existing literature and the essential aspects when analyzing two-sided platform businesses. The chapter outlined the concept of same-side and cross-side network effects

and presented eight customer acquisition strategies that can help a platform to overcome the challenge of the chicken-and-egg problem. Furthermore, the chapter elaborated on measures that platforms can implement to govern, facilitate, and improve the interaction between its user groups efficiently.

4. Case Studies

In collaboration with the Dutch company Skydreams B.V. and the Danish Company Codeable ApS, case studies have been conducted to examine the approach of each company to solving the chicken-and-egg problem. These examinations allow for a better understanding of the strategic decisions of executives and how these decisions can contribute to overcoming the chicken-and-egg problem, thus effectively answering the research questions.

4.1 Skydreams B.V.

The first case company of this thesis is the Utrecht-based Dutch company Skydreams. B.V. Skydreams is a technology company that provides online marketplaces that cater to many different industries such as removals, housing fixes, and everything from solar panels to windows. Currently, Skydreams is present in 17 countries and operates 152 platforms.

Skydreams was founded in 2002 by Mark Feenstra and Luis Verbakel who both were students at the time. At the time of establishing the company, Mark Feenstra was 18 years old and attended the first year of his studies at the University of Tilburg, while Luis Verbakel was about to finish high school. Although the dot-com bubble had just burst and caused many to be more alert and view the internet as an uncertain environment to operate in, they considered themselves to be part of the second wave of internet entrepreneurs and believed that they would be able to benefit from it. They anticipated the change that the internet is going to bring to the business world and how it will transform even traditional industries.

Already from the very beginning, they had a vision of where they wanted to go and what they wanted to do. They wanted to "bring companies and consumers together" (M. Feenstra, personal interview, February 18, 2019, 5:15). After the two co-founders had finished their studies, they then had to decide whether they wish to pursue their endeavor full-time, or whether they would get a regular job. They chose to focus on Skydreams full-

time and have been growing and successfully operating the company ever since. This also lead to the company being announced as one of the 30 best employers in 2015 and 2016 by the NRC Carrière Talent Monitor ("Nrctalentmonitor.nl.," 2015, "Nrctalentmonitor.nl.," 2017).., and one of the top 250 scale-ups in 2017 ("Top 250 Scale-ups 2017," 2017)., as analyzed by the Rotterdam School of Management (RSM) and the Erasmus Centre for Entrepreneurship (ECE) .

4.1.1 Pre-Conditions and Market Situation

As two young co-founders and students, both Mark and Luis did not possess any experience before starting their own company. The co-cofounders were aware of the market situation in the Netherlands and realized that the *Yellow Pages* were the primary source for finding companies online (M. Feenstra, 5:26). They pondered different market segments like the hospitality, travel, or dating industry that they could target, as the idea always was about connecting consumers and businesses (M. Feenstra, 6:00). They committed to only focus on the business part-time until they had finished their studies. Therefore, they decided to start the company alongside their studies in an industry that does not move too fast, as they would only be able to focus on the business part-time for the first four years (M. Feenstra, 6:13). In choosing their industry, they were aware that fast-moving industries like the travel industry could offer a first-mover advantage, which would result in a reduced window of opportunity for new entrants and might require additional funding (M. Feenstra, 6:38). Therefore, they did not want to operate in a fast-adopting market, or a market that is likely to only allow room for one dominant player (M. Feenstra, 7:03).

Ultimately, they were able to realistically assess their skillset and experience compared to other internet companies and chose the home improvement industry, as it is a slow-moving and at the same time a big industry (M. Feenstra, 8:00). As a primary inspiration, they looked at the website called *ServiceMagic* (M. Feenstra, 8:30), which today is called *HomeAdvisor* ("ServiceMagic is Now HomeAdvisor," 2012). At the time, they were able to identify only one platform like ServiceMagic in the Netherlands and also observed a transition from offline to online amongst traditional businesses. However, they assessed that the existing solutions like the *Yellow Pages* would not be the ones shaping the future and that people would look for SMEs (Small and medium-sized enterprises) on "some place on the internet" (M. Feenstra, 8:55). It is here that they looked at the Google as being the

"new" Yellow Pages, where people would be able to search for "anything" while ending up at specialist sites for most industries (M. Feenstra, 9:55). Hence, Google was the primary source of traffic back then and still is today (M. Feenstra, 10:51).

4.1.2 Launch

Mark and Luis had just gotten their drivers licenses and applied to become couriers. However, they did not have any experience and therefore got turned down. This setback led to Mark and Luis setting up their first website using *Microsoft Frontpage* and the *Adobe Dreamweaver* web development tool (M. Feenstra, 2:44) service, where courier services could promote their services (M. Feenstra, 2:13). They started by popularizing their platform via the website Startpagina.nl (M. Feenstra, 4:23) before Google was even an option.

The co-founders were from the beginning very aware of the fact that they had to find and convince service professionals to join their site to make it attractive for end consumers even to consider using their platform (M. Feenstra, 11:35).

To get service professionals to join their platform they were sending email marketing campaigns as well as physical letters (M. Feenstra, 12:37). They hired several students who collected all the data they could find about service professionals in the Yellow Pages, copied them into an Excel sheet and emailed the service professionals via Outlook (M. Feenstra, 12:55). In those emails, they let the service professionals know that they are the biggest website in the market and that the Dutch version of eBay, Startpagina.nl lists their service. They also bought ads for relevant keywords and could then offer high rankings on consumers' search queries for those keywords on Ilse.nl – which was the most prominent search engine at the time – and let them know that consumers are already waiting on their website (M. Feenstra, 14:01).

They sent this email marketing campaign to one thousand couriers and received between 10 to 20 applications from service professionals interested in joining the platform. They could join for €5 a month, totaling €60 an annual subscription and which lead to their first €1200 in revenue after launching a website, scanning the Yellow Pages, and sending an email marketing campaign. (M. Feenstra, 14:55).

They then reinvested that money into Google Ads to get traffic to their website, as they at this time only claimed to have visitors on their website, although there was no traffic yet (M.

Feenstra, 15:30). With the reinvestment of this money, they managed to solve the first hurdle of the chicken-and-egg problem.

(M. Feenstra, 18:32) With this model they also acquired hundreds of service professionals, starting with couriers, but then they started to focus on removals instead of couriers. They realized that the market has a much higher volume and was a more consumer-focused market, as opposed to the more B2B-focused courier market. Even though they started by implementing the pay-per-lead revenue model for the removal platform, they soon after applied it for other platforms too, and today it is the revenue model for all Skydreams' platforms.

When acquiring the service professionals for their moving sites, they changed used the same customer acquisition approach but upgraded it by using crawlers and bots to collect the relevant information from the Yellow Pages. To do so, they had to hire one developer to program the software, as opposed to hiring up to eight students to do the same work manually (M. Feenstra, 20:10).

Mark assesses it to be one of their strengths that they were able to identify this approach and then multiply it while improving the process along the way (M. Feenstra, 21:13). The "sweet spot," as Mark calls it, is what they then have multiplied 40 – 50 times for the other platforms (M. Feenstra, 21:35).

To be as efficient as possible, they coordinated the sending of their email campaigns with their advertisements on Google. On the platforms, it has always been possible as a service professional to inquire about a free trial for two weeks. Whenever Skydreams received such inquires, they ran Google Ads to simultaneously drive the demand to the supply on the website (M. Feenstra, 27:22).

(M. Feenstra, 29:38) They subsidize tradesmen with free trials of 14 days. During this time Skydreams incurs Google Ads costs, while the businesses do not pay anything. Additionally, the end consumer never pays to use the service, which means that Skydreams subsidizes both sides to some extent.

(M. Feenstra, 30:28) But they know that subsidizing the service professionals for 14 days leads to a conversion rate that is high enough to cover and make up for the costs they incur during that period. Based on the experience from using the same approach several times,

the investment dynamics become more evident, and they became more confident in their approach (M. Feenstra, 30:59).

4.1.3 Facilitating Interactions

Skydreams does their best in trying to improve the interactions that take place on their platforms. These efforts start by providing the users with information about the service that is presented to users upfront when they first reach the website. Ever since the inception of the company and the launch of the first platform, Skydreams follows this approach, as it provides the end users with an incentive to use and engage with the platform. The front page displays the same information to the end user, such as the option to receive to six quotes from service professionals free of cost, savings of up to 40%, and it only takes one minute to submit the request. A/B-tests have shown that displaying this information makes a difference in both the CTR (click-through rate), as well as in terms of the CVR (conversion rate). Therefore, it is to be considered part of Skydreams efforts in facilitating interactions, as it triggers the end users into engaging with the platform in the first place.

In the early days of the company, the relatively low amount of interactions did not require additional employees to take care of that task. Since it usually is not possible to solve the chicken-and-egg problem from one day to another, but rather is a process that can span over weeks, months or even years, the need for additional employees increased with an increasing amount of interaction on the platforms. What they did back then is also what Skydreams do today. They help the service professionals in administrating how many leads they want to receive, and they facilitate the "reclaim process of leads." This procedure allows service professionals not to be charged for leads that either do not meet or exceed specified requirements.

The service professionals can also determine the number of leads or budget that they do not wish to exceed. However, sometimes leads may still be sent to them. Therefore, Skydreams implemented the reclaim procedure early on, as it improves the user experience for the service professionals. For instance, when a lead is wrongfully sent to a service professional because he or she was on holiday or the service professional wanted to receive a lower number of leads, Skydreams helps in sorting out such issues.

In the beginning, Skydreams already facilitated the interactions by reducing the friction as much as possible. Users arrived on the website and only needed to fill in their zip code to get in touch with relevant service professionals.

4.1.4 Matching

The matching quality (Van Alstyne & Schrage, 2016) was less in focus in the beginning, as the interactions on the internet, in general, were much less sophisticated than today. During the starting days of Skydreams, the matching quality built on the zip code that end users entered, and then the service matched those end users with service professionals from the same area. However, Skydreams increasingly emphasizes the importance of the matching quality and continuously works on improving the options for the service professionals as well as the information available to the end users. Nowadays, service professionals can not only opt in for one specific zip code, but they can select as many zip codes as they like if they are within their area of service. This freedom of choice is essential for large clients who often serve countrywide or even internationally. This option makes it a lot easier for the service professionals to sign up for the leads they want to receive.

Another essential feature that Skydreams recently implemented is the *cherry-pick model* which addresses the concern that many service professionals had regarding the service (Homedeal Free Trial Survey, column E). They wanted to be able to not only automatically receive leads based on location, but they wanted to be able to review the type of leads, before Skydreams charges them for it. Some removal companies for instance, only want to receive leads of a certain size, that translates into a specific margin which they have set as a goal for themselves. This matching process is further enhanced by a feature that Skydreams recently has implemented, which allows end users to upload an image of their project, thereby enabling service professionals in offering more accurate quotes.

On the other side, the end users now also get to experience an improved flow of the interaction. Once the end user submits a quote request, they have the option to view the company profiles that provide much more information than they used to. Not only does this allow the end user to obtain more information about the company, but they can also leave a review as well as read reviews from previous clients. These are all factors that increase the quality of the interactions and help reduce friction. It leaves the end users with fewer questions, as they can find more on the platform.

4.2 Codeable ApS

The second case company examined in this thesis is Codeable ApS from Klampenborg near Copenhagen in Denmark. Codeable.io is a platform that focuses on creating the best possible experience for anyone looking to realize a website or software project related to the world's most used *content management system* (CMS) WordPress. On the platform, visitors have the opportunity to connect to freelancers who demonstrate a lot of experience in working on WordPress-related projects.

The company Codeable ApS was founded in 2012 by the two co-founders Per Esbensen and Tomaz Zaman and has today successfully established itself in the market and managed to build a strong reputation over the year. After having worked in the field of online marketing for several years, Per identified some struggles he wanted to solve. A part of his daily work in an online marketing agency consisted of outsourcing projects to freelancers online. Per too often found himself in a situation where using the existing platforms to find freelancers inevitably led him to unsatisfactory user experiences. In some cases, the communication did not go as expected, or it was difficult obtaining qualitative outcomes from using the platforms. In his opinion, the solutions on the market were not catering to the specific need he experiences. In his pursuit of creating a better experience for professionals like himself, Per felt that this experience could be improved and he decided to found Codeable.io.

4.2.1 Pre-Conditions

Before starting Codeable, Per was working at an online marketing agency. It was here that he experienced some issues in work for a client, which his in-house developers were not able to resolve. He did not have any experience in doing so, but he had to look for an outsourcing solution, which led him to use the platform Elance in the hopes of finding a solution (P. Esbensen, Skype interview, March 22 1:01). He stumbles upon Tomaz Zaman, who stands out for his English skills and who promises to get the job done within 24 hours (P. Esbensen, 1:44). Tomaz then became the preferred freelancer, who would after that for a few years work on more tasks for Per, all while they slowly bonded and developed a friendly relationship in which they would often conduct Skype calls together. It was Tomaz who then after some time came up with the idea of creating an expert platform. Disappointed from his previous experiences, Per did not think that the service and quality

on the existing big platform were of good enough quality, as he felt that the professional experiences he previously had in Denmark were more to his liking (P. Esbensen, 3:13).

They then found out that no niche platform offered precisely the experience they desired. Per then paid Tomaz to start building a *minimum viable product* (MVP), which ideally would improve this experience, all while he started reading books on how to start a business (P. Esbensen, 3:41). The situation back then was that WordPress powered 13% of all websites, and it was a growing community in which many new companies already interacted and created software products. It was here that Tomaz and Per noticed that the WordPress community is massive, but surprisingly no WordPress-only platform existed yet (P. Esbensen, 5:53). Since their feeling told them that WordPress is here to stay, they decided to develop their idea further (P. Esbensen, 6:10).

4.2.2 Launch

They further analyzed the market and found that WooThemes is the biggest provider of software like themes and plugins for WordPress, and so they decided to get in touch with WooThemes co-founder Adii (P. Esbensen, 10:27). They get to know that WooThemes employs more than 50 employees in their support department and that they deal with issues they should not have to deal with, like returning customers who ask for help after their support period has expired. Both Per and Adii agree that this is a big trouble spot for WooThemes and so they agree on a three-month trial period, in which WooThemes will sent customer asking for feedback to Codeable. Per was aware that Codeable did not have any authority yet, but being affiliated with a big player like WooThemes helped them a lot in increasing the numbers of customers and experts on their website (P. Esbensen, 12:04).

Per was convinced of the potential of Codeable but was aware of the challenge of starting a business. Therefore, he chose to have one of his friends – a partner at a reputable law firm in Denmark – join Codeable as an advisor (P. Esbensen, 15:13), and later on also as an investor (P. Esbensen, 18:50).

In the beginning, while Tomaz coded the platform, Per traveled a lot and tried to meet experts in person, so that he could convince them to join Codeable (P. Esbensen, 31:01). These meetings sometimes took place in the ramifications of WordPress events like *WordCamp* that regularly take place all over the world.

In his attempt of identifying experts, Per skimmed through existing platforms (most notably Elance.com, known as Upwork.com today), and he strictly targeted the top 1 % of freelancers, and cold called them (P. Esbensen, 6:34). This approach turned out to be an effective strategy, and Per managed to convince 44 out of 73 freelancers to join the platform, even though there were no clients yet (P. Esbensen, 7:02)

For building their supply-side, they made excellent use of their experts. Per assumed that if one is an expert developer, he or she will likely know other expert developers, and so they implemented reward and commission structures that allow their experts to participate from the earnings generated through their referrals (P. Esbensen, 38:47).

Due to their partnership with WooThemes, Codeable also received a boost in credibility, making it easier for them to approach other potential affiliate partners (P. Esbensen, 25:37). They found out that there is a lot of opportunity in focusing on more prominent software companies who have to deal with a support loop like WooThemes, but who do not have a proper solution for it yet. They identified this as a gap in the market, which then facilitated the acquisition of customers for Codeable (P. Esbensen, 26:15). In the beginning, they were eager to acquire all the customers they could get, while they now focus on a specific and more qualitative set of customers (P. Esbensen, 32:35).

All the potential affiliate companies have products where they need support, and Codeable offers a similar approach as they did with WooThemes, and offer the affiliates to start small and test Codeable's service before committing fully.

4.2.3 Facilitating Interactions

Codeable was born out of Per's and Tomaz' bad experiences with the established platforms when it came to outsourcing, which in his opinion lacked the necessary level of professionalism (P. Esbensen, 16:22). When he would use the existing solutions, he would receive up to 70 proposals for one project, which is not manageable at all (P. Esbensen, 1:29). As a client this would take a lot of time in sorting out the received proposals, resulting in bad user experiences (P. Esbensen, 8:40). These experiences are part of the reason why Codeable introduced the no-bidding policy to prevent a bidding war on the projects, which ultimately would result in a massive quality drop (P. Esbensen, 8:05). Furthermore, Codeable initially started by allowing the customer to post projects in which they specified the desired budget. However, they quickly found out that the customers do not propose a

realistic budget, which is why they changed the setup so that only the experts would give a proposal from then on (P. Esbensen, 22:57).

Besides to that, Codeable implemented a specific proposal procedure, which takes the average of the estimates from three freelancers and shows it to the customer, whereafter the customer can then decide to hire one of the freelancers.

They noticed a trend that customers would return and hire the same experts, which is why they introduced *preferred projects*. This feature allowed the customer to hire the desired expert (P. Esbensen, 24:55). They also make use of an escrow system when facilitating the projects, which only allows for the payment to be released to the expert, once the customer is satisfied and has marked the project as complete (P. Esbensen, 28:36).

Most notably, Codeable has been working on a custom coded system for the past six years, which aims at improving the quality of the interactions. For instance, it allows experts to make private comments regarding communication with customers (P. Esbensen, 20:35). The system also helps in monitoring the interactions in terms of responsiveness from the experts, as well appropriate and professional behavior, so that Codeable can interfere, in case they notice that any issues arise (P. Esbensen, 36:35). If an expert is flagged – which can happen in the case of mistakes or misconduct – Codeable will prompt the expert to participate in a course that addresses the issue at hand. Failure to comply with these requirements might lead to the expulsion of the expert from the platform (P. Esbensen, 47:00).

Maybe as a result of these efforts, Per sees Codeable as being reliable when it comes to customer service, as they always try to meet the customers on eye level (P. Esbensen, 16:40). Per is a firm believer of excellent customer service and points out that the Codeable customer service today answers all tickets within a minute, regardless of when and where it sent (P. Esbensen, 17:12).

Another unique aspect that shows Codeable's eagerness to satisfy their clients is the introduction of the *additional tasks*, which align very well with the customers' needs as well as creating a benefit for the experts (P. Esbensen, 45:37).

These measures show that Codeable is trying their best to implement as many features that can improve the interactions that take place on their platform.

4.2.4 Matching

As Per states, the focus has always been on the matchmaking between the requirements of the customer and the freelancer best suited for the project (P. Esbensen, 7:31). The experts are automatically matched based on how well they fit the project description, and then they get to interact with the customer. This procedure takes place following Codeable's guidelines to ensure professionalism and efficiency (P. Esbensen, 9:15).

One way of improving the matching quality is by monitoring the communication on their platform to always keep track of what demand the customers have. Then they can react by getting the best possible supply for their platform. They do this by recruiting experts from the same areas from where they receive their customers, which at the moment draws their attention to North America (P. Esbensen, 38:20).

However, Codeable does also apply high standards on the customers they want to work with, and they expect the customer to be open and honest, or else they decline to work with them. This mindset also results in Codeable now turning down 40% of their customers (P. Esbensen, 21:48). To ensure better matchmaking between their developers and their customers, they have in the past few years become better at using data to sort customers based on their origin, which helps them to filter out customers with unrealistic expectations (P. Esbensen, 22:21)

4.3 Sub-Conclusion

By applying the methodological approach outlined in chapter 2, this chapter contributed to the thesis by providing an overview of the essential information obtained from the interaction with the case companies.

5. Findings

The goal of this chapter is an intersection where theory and analysis meet. Based on the data obtained via the interviews and surveys, the theory will be applied and used to identify strategic choices implemented by the case companies. Furthermore, the chapter will collect the findings and conclude with answers to both research questions of this study.

5.1 Findings Related to Pre-Conditions and the Market

5.1.1 The Importance of Differentiation

During the beginning phase, Skydreams differentiated themselves in their markets by enabling consumers to receive up to six quotes at the same time, which at the time was not possible through any other service in the Netherlands. Codeable exerted a higher degree of differentiation and managed to distinguish themselves more significantly. The wanted to create a go-to source for WordPress-related service offerings of the highest quality. As such a specialized platform was not yet available, they filled out that niche, bypassing platforms like Elance and oDesk, who offered a much broader selection of services and did not have as specific a target group as Codeable. Furthermore, Codeable also differentiated themselves by implementing strict rules, such as the no-bidding policy, which was the first of its kind in the market. Codeable were able to eliminate the friction that clients experienced when trying to hire freelancers on the established platforms. The friction on these platforms was related to freelancers being able to bid on projects, leading to what Per referred to as "bidding war," which in his opinion ultimately did not focus on the quality of the work anymore, but solely on low prices.

Per and Tomaz from Codeable identified these two significant factors that allowed them to differentiate themselves while solving enough friction to be an attractive service provider for their respective target groups. As Per mentioned, despite the rapidly growing popularity of the WordPress CMS, there was no WordPress-only platform yet.

As shown in this study, a company can successfully differentiate itself by adjusting its products and services to a need that either is missing or is present in the market.

5.1.2 Empowering Producers

It is of utmost importance for platform service providers to try and establish a marvelous user experience for the users on the supply side if they are to use the platform consistently. This observation is especially accurate for companies who have business relationships with so-called *A-clients* or *pareto users* as described by Van Alstyne and Schrage (2016). According to their definition, this particular user group usually consists of 20% percent of the users that generate 80% of the revenue, which makes it essential for the platform service providers to cater to those users. According to their explanation, it is first and foremost necessary to focus on empowerment of the users on the supply side, as it enables

the users to tailor their service offerings more precisely to the consumers' needs, thereby increasing the chance for positive cross-side network effects to happen on the platform.

For Skydreams, these users are critical, as they guarantee a high volume of transactions for the platforms. While Skydreams has a few of these clients in each county of their operations, in some cases they even engage in atypical business relationships, due to a client being a pareto user. Skydreams therefore also allows users to register as service professionals with the platform, that are platforms themselves.

One famous example is Movinga, a platform which like some of Skydreams' platforms facilitates the interaction between users and removal companies. The reason for both Skydreams and Movinga to engage in such an atypical relationship between two platform service providers lies in Movinga's aggressive approach of gaining a bigger market cap. Hence, Movinga is willing to pay for leads received from Skydreams. In turn, this means that Skydreams has a higher coverage resulting in increased revenue. For instance, if they send a lead to five service professionals of which each pay €20, this results in €100 revenue for Skydreams. However, if they send the same lead to six service professionals, the revenue amounts to €120. Therefore, it is in Skydreams' interest to have broad and dense coverage of each service area, and A-clients like Movinga significantly increase the coverage, as they do not only focus on specific parts of the country but always follow a country-wide approach in their countries of operations.

Furthermore, Skydreams implemented the cherry-pick feature to enable service professionals to specify more precisely what types of leads they want to receive, which is another step to efficiently empowering users on their supply side. Although the customer satisfaction survey shows that the service professionals are satisfied with the overall service (Appendix J), this feature will likely also contribute to increasing the satisfaction ratings in the future.

Something that Codeable and Skydreams have in common is that their supply-side users do not incur any switching nor multihoming costs when joining either of the platforms. Skydreams only charges the service professionals, when they receive leads from the platform, but the registration itself is free of cost. Similarly, service professionals on Codeable can list their services on several platforms like Upwork, while also being listed in Codeable's database. Instead of a registration fee, there is a thorough verification and

screening process to determine, whether the freelancer fulfills Codeable's expectations. This free-of-cost entry makes it more comfortable for qualified freelancers to join Codeable. Those freelancers who are qualified enough to be accepted will likely not struggle with the verification and screening process. At the same time, they will appreciate the fact that they do not have to pay for anything.

The only costs incurred by Codeable's experts are the service fees that are collected by the platform. This happens whenever a project is successfully mediated by Codeable, which creates a win-win situation between Codeable and its freelancers. This ease of entering either of the platforms eliminates the risk that competing platforms can negatively impact Skydreams' and Codeable's supply side, by influencing the overall multihoming costs in the market, as they cannot underprice them (Rochet & Tirole, 2003).

5.2 Findings Related to Launch of the Platforms

5.2.1 Selection of User Acquisition Strategies

The analysis of the case companies in this thesis shows that a platform service provider can choose and combine different user acquisition strategies. Which strategies the platform ends up using is highly dependent on the market situation, the competition, as well as the insights of the management team. There are different approaches to selecting one or more user acquisition strategies that can range from free trials for users to collaborations with other companies in the same or adjacent markets. To be able to choose the right strategy or the right combination of strategies it is beneficial to analyze the market and the users, similar to the way Per did it (P. Esbensen, 4:33). Based on the learnings obtained from the analysis, it is then possible to develop an approach that considers important factors like the circumstances in the market, user behavior and combines it with the technological and financial capabilities of the company. While a specific user acquisition strategy might be successful in one industry, it might not be the right choice in another sector. As Mark Feenstra stated in the interview, "every industry has its own dynamic in terms of the chicken-and-egg" (M. Feenstra, 11:30)

5.2.2 The Micromarket Strategy

For every platform, it is essential to define strategic goals and milestones that support the company's vision. The micromarket strategy can be a handy tool for developing and ultimately achieving these strategic goals following the long-term vision. The analysis of the

case companies has shown that Skydreams and Codeable implemented the micromarket strategy into their operations, as they both defined a focus, that is, a specific market segment and a particular type of users they want to target.

Skydreams has the overall vision of catering to the home improvement as well as the removal industry. However, they started by dividing the home improvement market into many categories, which is the reason they today operate as many platforms as they do. As was mentioned by Mark during the interview, the niche sites also helped in solving the chicken-and-egg problem, as opposed to starting with an umbrella site like Homedeal, which caters to many different market segments. By focusing on niche sites, Skydreams split the chicken-and-egg problem and made it more manageable.

Codeable can be said to have implemented the micromarket strategy in two ways. Firstly, they began by focusing exclusively on developing an elite WordPress-focused platform, which was non-existent at the time. Secondly, they solely concentrated on establishing collaborations with existing software companies, most notably WooThemes. For Codeable this has been such a big success that they had to delay their initial plans of expanding into other verticals (P. Esbensen, 6:19).

5.2.3 The Seeding Strategy

The case studies presented in this thesis both share the same characteristic of initially utilizing the seeding strategy to populate their platforms.

When Skydreams initially started, they were aware that they need to have supply on their platforms before they can reach out to potential consumers. Hence, they decided to focus their efforts on attracting service professionals first. They did so via direct marketing, ranging from email campaigns to physical letters and even cold calling. While some of the direct marketing channels were more efficient than others, for Skydreams it was always clear that they would deploy the seeding strategy as a starting point. At the time of Skydreams beginnings, it was not as common yet for an SME to have an internet presence, and the internet for many was still an unknown variable. However, the different direct marketing strategies employed to execute the seeding strategy, as well as the willingness to fail and learn along the way is what laid the foundation for Skydreams' success. Today the acquisition of users on the supply side mainly happens through advertisements on Google (Appendix K).

The difficulty with the seeding strategy can lie in the phase leading up to the initial interactions between users on the supply-side and users on the demand-side. In the case of Skydreams for instance, Mark described the company's willingness not to satisfy every service professional from the very beginning, thereby risking the overall satisfaction of the service professionals. Hagiu and Yoffie (2009) already pointed out that the interaction with any platform will always hold a certain amount of risk, even if they previously populated one side of the platform with users.

Ever since the seeding of the platforms reached a high enough level to attract users to the supply side of the platform, as pointed out by Mark, their primary tool to acquire consumers has always been Google Ads. Today Google Ads is still the main driver for Skydreams' customer acquisition efforts, as the company spends around €5 million solely on Google Ads.

This approach led to the company being able to attract users to the website, resolving the imbalance of more supply offered through the platform than demand being driven to the platform, ultimately allowing for the platform to reach a state of liquidity.

For Codeable it was also the seeding strategy that helped to populate the platform in the beginning. At first, Per cold called 73 WordPress developers and had a lot of success. Interestingly, cold-calling was an approach that has been tried but did not work for Skydreams (M. Feenstra, 51:05). Apart from cold calling, Per also went to WordPress-related events around the world, where he also managed to acquire new developers for Codeable. Later on, Codeable then decided to use their existing developer base to further attract and onboard skilled developers to Codeable.

A comparison of how Skydreams and Codeable have implemented the seeding strategy shows that even though the strategy at its core is the same, there are different ways to go about executing on it. While Skydreams developed a direct marketing approach and duplicated it for all their platforms, Codeable initially used a direct marketing approach via cold calling, as well as networking events to get in touch with potential experts for their platform.

In any case, the seeding strategy is what has been a key to the success of both companies and has laid the foundation for their further operations.

5.2.4 The Piggyback Strategy

While the seeding strategy marked the beginning of Codeable's efforts in building their user base, it is by combining it with the piggyback approach that the company ultimately has succeeded (P. Esbensen, 13:51). Codeable were confident in their service and needed to find a solution to acquiring customers to take advantage of the supply on their platform. Hence, they identified the intersect of lack of supply and unmet demand at WooThemes, one of the biggest software providers for WordPress websites. Codeable managed to establish a business relationship with WooThemes in a similar way in which PayPal targeted eBay and its user base a means of growing and developing their own company. By doing their preparations in building a base of highly qualified freelancers, they formed the workforce that could take on the demand that WooThemes was not able to satisfy.

It appears that the piggyback strategy requires upfront efforts in either building a service or product that is ready to be brought into the market. When executed efficiently and in alignment with the own resources, capabilities as well as a realistic assessment of the market, this strategy can lead to long-term success. If successful, it enables the platform provider to take a shortcut in bringing a service to market after they identified a specific need. Even if the piggyback strategy might come at a cost – which for Codeable has been a 5% stake of their equity – the success achieved thereby far outweighs the cost. Codeable put themselves in a strong position by delivering value to their collaboration partner, which resulted in a symbiotic and mutually beneficial relationship. Hence, Codeable's strategy to piggyback on WooThemes while using the seeding strategy and a micro market focus has proven to be a successful combination.

5.3 Findings Related to Facilitating Interactions and Matching

While the challenge for platforms initially evolves around the chicken-and-egg problem, it is equally essential for the platform service provider to focus on the factors that can be beneficial in achieving sustained success. Therefore, solving the chicken-and-egg problem should not be limited to focus only on the initial hurdle of acquiring enough users to reach the state of liquidity. It is equally important to focus on how the platform manages to maintain the positive upward spiral of acquiring users and prevents users from leaving the platform again.

5.3.1 Optimization of Touchpoints

One aspect that is crucial for any platform service provider is the continuous optimization of all their touchpoints. Wherever the user interacts with the service, whether it is through the homepage, an app, an email marketing campaign, or when logged into their account, all these touchpoints pose potential for optimization and can add to the customer retention. As described by Kumar and Petersen (2012), an increased product and service quality increases the customer satisfaction rate, which leads to a higher customer retention rate and ultimately results in improved performance of the company.

The continuous efforts that Skydreams makes to improve the intuitiveness and the design of their website highlights their awareness on this topic. Equally, Codeable considers the optimization of all touchpoints an essential factor for the success of their platform. Per in general attributes the company a high-quality customers service and adds that his mantra is *responsiveness*. Therefore, they developed the management tool aimed at optimizing the entire communication between the Codeable staff, the experts, and the customers, especially in terms of speed.

5.3.2 Governance and Trust

As has been established previously, trust is a vital aspect of any platform. A platform service provider can choose to build trust by implementing an unlimited amount of regulatory measures and procedures that ensure that most – if not all – interactions taking place on their platform are of high quality and leave users on both sides of the platform satisfied. Skydreams and Codeable have implemented features in their service regarding trust, governance, functionality, and design, such as:

5.3.2.1 Skydreams

Free Trial	Service professionals go through a verification and onboarding process with account managers upon registration
Reclaim Function	Service professionals can reclaim leads, giving them more flexibility and lower costs
Review System	Users fill out the form and can then see the full profiles of the companies that fulfill their requirements
Filter	Service professionals can filter what leads they want to receive "cherry-pick" model
UX	Professional design of the website and lots of informative content as well as intuitive navigation features

Branding	More significant focus on Skydreams' brand "Homedeal" results in increasingly positive perception and more referrals
Logos	Logos of service professionals listed on the platform
Verification	Before service professionals can join a platform, Skydreams reviews their company details
Expulsion	Skydreams expulses service professionals who violate the rules or fail to settle invoices on time

5.3.2.2 Codeable

Screening Process	A thorough selection process of developers who are allowed into their database. Only the top 1% selected
Certificates	Issuing of in-house Codeable certificates to provide proof of skillset and trustworthiness of a developer
Matching	The matching algorithm finds the developers who are the best fit for each project, based on project requirements
Estimates	Receiving project estimates for clients free of charge
Communication	Sophisticated in-house communication tool
Logos	Logos of respectable businesses and institutions that are Codeable clients
Success Stories	List with success stories from previous clients
Reviews	Reviews on platforms like Trustpilot ("Codeable on Trustpilot," 2019).
Responsiveness	They provide a 24/7 customer service that answers all tickets within 35 seconds (P. Esbensen, 17:35)
Preferred Projects	The option for satisfied returning customers to hire the same experts they have had good experiences with
Escrow System	The use of an escrow system that provides an extra layer of security for the customers
No-Bidding Policy	It is forbidden for Codeable experts to engage in a "bidding war" in the pursuit of winning a project
Expulsion	Codeable expulses experts who violate the rules repeatedly

5.3.3 Matchmaking

While a platform can have many users on the demand as well as the supply side, it is necessary to assess the user numbers in proportion to the successfully facilitated interactions, that is, the amount to which the platform already – if at all – resides in *liquidity.* The matchmaking process of both companies partially originates from the

elements listed above. What is noteworthy is that both companies allocate resources to develop further and improve their service.

Skydreams' matching procedure previously built on customers entering the zip code, whereafter they matching takes place with companies that operate in the desired area. To improve this experience, the company has just finished developing the cherry-pick model that allows service professionals to apply filters on the leads that they wish to receive. This results in a better experience for the service professionals, as well as the customers. The service professionals thereby receive fewer leads and reduce their overall costs, while being able to provide the customers with better quotes. Skydreams monitors its service professionals regularly, and the main focus is their financial situation. The payment system calculates the monthly amount of leads received, and invoices billed to the service professional. If a service professional repeatedly fails in settling invoices, the consequence may be expulsion from the platform.

As Per mentioned, Codeable uses an algorithm-based process on its platform to match experts with new projects. Whenever a client posts a project, the system will automatically analyze the requirements, look through its database of experts, and then identify those experts whose past work and experiences are the best fit. This procedure has been very efficient in the past, resulting in high customer satisfaction rates, as 98% of all 96.000 projects facilitated by Codeable received a rating of five out of five. Therefore, Codeable decided to expand the matchmaking process by introducing *additional tasks.* The additional task feature now accounts for a third of Codeable's revenue (P. Esbensen, 46:02). Together with the *preferred projects* that Codeable has implemented, this demonstrates that the matching process must of high quality, resulting in quality work, positive reviews, and only one chargeback per quarter (P. Esbensen, 38:00).

5.4 Other findings

5.4.1 Strategic Focus and Becoming an Authority

As highlighted by the previous findings, it is necessary for a platform to have a strategic focus. For a platform, the strategic focus is especially crucial for two aspects: the market, and customer acquisition. It is only then that the platform can realistically aspire to solve the chicken-and-egg problem and become an authority in its chosen market. If a platform chooses the wrong market to operate in, all subsequent efforts will likely be ineffective.

Even upon identifying the right market, the platform can only succeed if it also has an effective customer acquisition strategy in place.

In the prolongation of the market segmentation and the initial customer acquisition strategy, it is also essential to put effort into the optimization of the interactions and the matching and align them with the long-term strategy. If done successfully, this combination helps the platform in building trust amongst its users and consolidating its position. As Parker et al. (2016) describe, it is essential for the platform to create an environment in which the conditions allow for the creation of useful and relevant value units, which then helps in building a reputation and establishing itself as an authority in its field.

Skydreams already is the market leader in the Netherlands, and Codeable is also living up to their ambition of being power and a decision-maker (P. Esbensen, 42:40). The fact that a very renown company like WooThemes has continued to pursue this collaboration for several years is an achievement and a confirmation of Codeable's work and lets potential customers immediately perceive Codeable as a trustworthy authority in the field.

5.4.2 The Transaction-Based Revenue Model

Although Skydreams, in the beginning, used a subscription-based model, the company today follows a transaction-based revenue model. This model works in a way so that the service professionals do not have to pay a registration nor a subscription fee, but they only pay for every lead they receive, even if the lead does not convert into a paying client for them. The relatively low risk of this setup tempts service professionals to join the platform, as they perceive it as a pay-as-you-go service. This model improves the service professionals' perception of the platform, as it comforts them with a rather frictionless entry as described by Parker et al. (2016).

From Skydreams' perspective, it is an adequate model, as it allows for a reduction of uncertainty in financial planning and also permits a more precise calculation of the company's expenditures. As Mark pointed out during the interview (M. Feenstra, 57:34, 1:01:00), it is vital to consider the relation between the cost of acquiring a customer and the lifetime value of the customer. The transaction-based revenue model, therefore, has two advantages: it reduces the risk for service professionals in using the service, and it provides a sense of security for Skydreams in leveraging their proven formula, knowing that it originates from reliable financial calculations.

5.4.3 Exaggeration and Overstatement Can Have Positive Effects

When beginning to build a platform, one of the many factors that play a role in the success or failure of the platform is how its users perceive it. The users' perception was especially crucial for Skydreams in the beginning. As Mark mentioned in the interview (M. Feenstra, 44:06), Skydreams had to oversell their service to have potential customer perceive the service positively. This approach led to users engaging with the platform, despite a still insufficient matching quality. Since users would only be interested in using the platform if they know there are service professionals, the founders made this strategic choice. Either they could portray themselves as an established platform already, or they would tell the truth, and likely miss out on many customers.

Even though they knew that some of the demand would remain unsatisfied, the founders were confident that they would be able to handle the majority of the incoming quote requests. This tactic allowed the positive impact of the number of serviced customers to outweigh the adverse effects of unserviced customers. Despite the risk of having a few customers experience a weak matching quality, the founders stuck with the strategy of instead serving the 70% and taking care of the rest later (M. Feenstra, 45:11). Although this approach includes some risk, they were ultimately proven right by its success. Therefore, Mark also refers to the infamous line "fake it till you make it," to which he accredits some truth (M. Feenstra, 46:29).

5.4.4 Network Effects

Even though network effects are an essential aspect for most platforms, this study has found that network effects can be challenging to measure and that they might not be necessary for every type of platform. Even though Skydreams' platforms have been live for many years, network effects are only about to be of interest to the company by now. While Mark acknowledged that there might be some positive network effects occurring amongst end users in the form of word-of-mouth referrals (M. Feenstra, 53:27), measuring the network effects has overall not been of too high importance for the company, also due to its continued success in advertising on Google. One reason for the company not to focus on the network effects as much is the fact that they are operating many niche sites. As Mark mentions, network effects amongst the service professionals do not take place on these

niche sites, as the service professionals would refer to direct competitors, thereby potentially inhibit their competitiveness.

The topic of network effects will though become more interesting with the establishing of the umbrella site Homedeal. As Mark mentions, there is a lot of interaction between service professionals across different professions, which is in complete contrast to the niche sites (M. Feenstra, 55:24). Therefore, it might soon be possible to better analyze the effect of positive same-side network effects that take place on Homedeal (M. Feenstra, 54:29).

Contrary to Skydreams, Codeable implements measures in trying to evoke and strengthen the network effects surrounding their platform. As Per explains, they implemented a transparent affiliate system for their developers, in which they can benefit up to $2.000 or $3.000 per month. Codeable shares half of the service fee and grants their experts a bonus for all future earnings realized through their referral (P. Esbensen, 38:47). The company even goes so far as to pay the experts' best hourly rate for sharing their knowledge in an attempt of acquiring new experts (P. Esbensen, 45:06). This effort builds on the assumption that a skilled WordPress developer likely knows equally experienced developers in his network and that they also like sharing their knowledge.

Currently, more than 20 experts join Codeable each month. Although it is not clear how many experts join as a result of the reward program, the fact that some experts already earn the referral commissions shows that the procedure is working and indeed causes positive same-side network effects. While it may not be labeled a typical network effect, it is noteworthy to mention that Codeable used to only have a success rate of 7% in acquiring new affiliate partners, while they now are approached by companies who want to engage in an affiliate partnership.

5.5 Answering the Research Questions

Based on the findings previously described, this chapter answers the research questions of the study.

5.5.1 How is a Platform Business Implemented and How Does it Create Value?

The findings of the research of this study show that the successful implementation of a platform depends on several factors. While a platform ultimately is judged by its ability to create and evenly distribute value, it is vital to consider the strategic preparations that are

necessary to build a solid foundation. Several factors may each exert a significant influence in any such undertaking. As described throughout the previous chapters, it is essential to assess the conditions of the respective market that the platform targets. In some markets, there might already be established players, which could make it more difficult for new entrants to penetrate the market or even render wasted any effort aimed at entering a specific mark at all. Conversely, a market analysis can lead to insights and help in identifying potential improvements of particular products or services, which then can serve as leverage for the success of the platform.

A properly conducted market analysis is one of the factors for Codeable's success. The established platforms already provided the same services and even some of the same individuals (that ended up joining the Codeable platform. However, these platforms had a broader focus when it came to their selection of services offered. It appears to be the case that a platform increases its chances of succeeding if it – at least in the beginning – follows a rather narrow approach that initially allows for its value proposition to prove itself. Once a *minimum viable product* (MVP) has been developed and tested, the chances of successfully scaling a service or product increase significantly. This assumption has been proven right in the case of both Skydreams and Codeable, who both developed and built their platforms gradually.

In the assessment of the market and the overall opportunity, it is also essential to take into consideration the experience and the composition of the founding team. As Mark mentioned in the interview, mistakes are a part of starting a business, and it is essential to be willing to learn from mistakes. Even though some factors are critical to all platforms, some platforms succeed, and some do not. The success or failure can originate from many different reasons. Therefore, it is necessary to look at each platform as an individual case that arises from unique conditions, and it involves different people. As Mark also elaborated, in his opinion, there are no losers, only quitters. This statement implies that to be able to deal with the challenges that inevitably occur when trying to build a platform, the people in charge do not only to be knowledgeable about the field, they also need to be mentally strong. The willingness to endure a trial and error process over an extended period, as well as the ability to acquire additional necessary knowledge is one factor that might separate the achievers from the non-achievers.

Another vital aspect to consider when trying to establish a platform business is technological advancement. A platform is a complex construct with lots of interactions. Hence, a lot of requirements become more sophisticated and challenging by the day. Therefore, having an initial service offering often is only a starting point when it comes to creating and capturing value. As seen in the findings, Skydreams, as well as Codeable have evolved significantly since their inception, and they continue to do so along the way. Even though the platform might be able to benefit off its initial offerings for a period, the ongoing technological advancements and changes in user behavior require constant alertness and subsequent adaptation, testing, and improvement of operational processes to keep creating and capturing value for its users.

Ultimately, the purpose of a platform is to fill a void in its respective market. But since each market has its dynamics, it is not possible to define a one-size-fits-all solution for establishing platforms across different industries.

Hence, the establishing of a platform requires the founders to be aware of the necessity of applying a multi-faceted approach. This approach needs to take into account the different factors that can influence the endeavor and it needs to be used as a toolkit to efficiently evaluate the factors that are most relevant for each specific case. The identification of a gap in the market might be as important as assembling the necessary resources, the ability to realistically assess one's strengths and weaknesses, as well as the willingness to take risks and learn from mistakes.

5.5.2 How Can a Platform Service Provider Overcome the Chicken-and-Egg Problem?

Several strategies can lead to success in the initial customer acquisition and in overcoming the chicken-and-egg problem. It is essential to acknowledge that one specific customer acquisition strategy might hold more value than another, depending on the market. As seen in the case studies examined in this thesis, it is possible to apply several strategies and thereby split the chicken-and-egg problem into several stages. This splitting allows for a seemingly more significant issue to be divided into smaller and more manageable tasks, as seen with Skydreams, which focused on niche platforms for single professions before focusing on a bigger platform for all occupations.

Ideally, the platform should create enough value shortly after its inception, so that users are intrigued and willing to interact with the platform. The exact definition of the value created

by the platform varies, depending on the focus of the platform. In the case of Skydreams, the value offered to end consumers is the speed and the convenience with which they can compare quotes (M. Feenstra, 32:47), while the value for the service professionals lies in increased revenue through servicing more customers. Conversely, the main focus of Codeable is not the speed with which they finish a project, but the quality thereof. This notion suggests that different platforms have different focus areas to prioritize. In assessing how a platform can solve the chicken-and-egg problem, it is therefore vital to take into consideration the value creation and aim for the state of liquidity.

To achieve the state of liquidity, it is essential to ensure a frictionless entry for all users, while exerting a high amount of trust and engaging in a clear communication regarding the value that the users will get from participating in the platform. These factors significantly influence whether they choose to engage with the platform or not. Consequently, it is necessary to align the chosen strategy or strategies well with the vision for the platform and deliver the value that people expect to find on the platform. The platform needs to follow a plan tailored to the market, the platform's offerings, the platform's users, and the available resources. As every platform consists of different user groups with different needs, it is not possible to label one strategy as more efficient than another. The efficiency of any of the strategies largely depends on how well the company executes its strategy, and whether the chosen strategy fulfills the specific needs that each case poses.

Solving the chicken-and-egg problem requires a holistic approach which considers all the factors that can influence the platform's operations in one way or another. It is necessary to identify and validate a real need in the market and not to be misled and put effort into a project that does not create real value. This distinction is also the difference between *conceptual creativity* and *artistic creativity* as described by Razeghi (2008). Artistic creativity is used to describe the process of creating something beautiful, elaborate, aesthetic and it often arises from the wish of creating something based on one's passions and desires. In terms of business and monetization, this leads to the complication of having to find a need in the market that fits with the pre-made solution. Hence, artistic creativity might lead to solving a need that is not even there. Conceptual creativity, on the other hand, takes a point of departure in an existing real-world problem and then tries to develop a solution for it.

Therefore, solving the chicken-and-egg problem at its core requires the platform to be built for a real need, so that it is possible to focus on optimizing the operations and processes, establishing partnerships if necessary, and developing the relevant product or service features, ideally based on data. By maintaining a detailed and accurate overview, the management team is then also more likely to realistically assess whether their current efforts are fruitful or not. This assessment enables them to spot potential trouble spots in their daily operations so that they can act on trying to resolve them as quickly as possible.

It is therefore advisable to base the framework for solving the chicken-and-egg problem on efforts related to conceptual creativity, and then combine these efforts with detailed market insights, insights about user needs and user behaviors, as well as the available resources and the strengths and weaknesses of the team. Based on these factors it is then possible to choose or draft a user acquisition approach that consists of one or several strategies, as well as an action plan for executing on this strategy. Thereby, all insights, as well as all risks, are cross-checked, which increases the likelihood of selecting the ideal path to solve the chicken-and-egg problem.

5.6 Sub-Conclusion

This chapter presented the findings of the analysis of the two case companies. It also produced findings related to different domains, such as the market context, how strategies can be combined to succeed in the initial customer acquisition, how the facilitating of interactions can be improved, and what the different platforms do to evoke trust amongst their users. Finally, the chapter answered the two research questions of this thesis.

6. Discussion

This chapter consists of a review and a discussion of the findings, how they contribute to the existing literature. Furthermore, it suggests ideas and recommendations for future research on the chicken-and-egg problem in the academic field.

6.1 Launching a Platform

As has been elaborated on throughout this thesis, launching a platform is inevitably connected to several essential measures that are important if the platform is to succeed.

6.1.1 Available Resources

The literature so far has for the most prominent part focused on platforms that are usually established already and have enough resources at their disposal. This realization raises the question, whether some platforms took the best approach or not. As Mark pointed out in the interview, some companies spend a lot of money on channels, where it is possible to growth hack without spending a lot of money, and still reach the same or even better results (M. Feenstra, 1:00:35). Interestingly, Per mentions the opposite and is glad that they did not have any growth hacker or marketer in their team who would want to spend a lot of money and resources on advertising, as he believes more in building the product itself (P. Esbensen, 23:37). The comparison of these opposing points of view raises the question, whether companies with more resources have a higher chance of solving the chicken-and-egg problem, or whether there also are less resource-intense alternatives that a platform can provide to solve the problem.

As seen with Skydreams, it is possible for platform providers to start with few resources, generate a certain amount of revenue, actively re-invest it into the venture, and thereby grow organically. Until this day Skydreams is entirely privately held and has never accepted or needed any outside capital to keep its operations going. When determining whether the solution to the chicken-and-egg problem necessarily needs to be capital-intensive or not, it can very much have to do with the way that the company is allocating their resources, what exactly their service consists of, and how big the margins are on each customer. Some platforms depend on a significant user volume, as their margins are small, while other platforms have more significant margins and require fewer users.

Like Skydreams, Codeable did not have access to many resources when they first started. Even though Codeable accepted some outside funding along the way, it is interesting to focus on the preceding period. However, due to Tomaz' experience and Per's trustworthiness, they convinced WooThemes to take a stake in Codeable – which at the time did not have a high valuation – in exchange for an affiliate partnership. The resources that Codeable leveraged were their credibility and their projections of how their business is going to evolve in the future. This partnership shows that a company can leverage monetary and non-monetary resources – or even a combination thereof – in its pursuit of solving the chicken-and-egg problem.

6.1.2 Aligning Resources and Strategy with the Market Situation

The fact that neither of the case companies had too many resources seems to attribute more significance to the strategic focus and the goal of maximizing the output of their limited resources. As demonstrated by both Skydreams and Codeable, it is essential for a company to combine its resources and its strategies as efficiently as possible. Both Skydreams and Codeable decided to utilize the seeding strategy as well as the micro market strategy, and Codeable also leveraged the piggyback strategy.

For Codeable there was no direct cost in building their supply side, as in the case of Skydreams. However, both companies managed to leverage the available resources wisely and put them to use in achieving their outlined strategy.

Even though Codeable had to give away five percent of their equity (P. Esbensen, 12:24), at the time, they were more than willing to do so. Codeable was not a big success yet and did neither have a track record nor a customer base. Another example is the hiring of their first employee, who did not receive a salary for the first year and whom they compensated with a 5% stake in the company (P. Esbensen, 14:46). Once they had proven their concept, they were then also willing to accept some external funding to grow their operations further, but only in the form of buyback shares (P. Esbensen, 19:26). These strategic choices make Codeable an excellent example of how to effectively combine resources with the strategy.

Because no one was in the market to partner with, Skydreams had to make different choices regarding their resources, which resulted in a strategy that builds on unit economics.

As shown by the success of Skydreams, it has proven to be a very effective way in attracting users from the very beginning, even though the advertising tools provided by Google were not as sophisticated as they are today. As Parker et al. (2016) point out, pull marketing, that is, creating awareness and demand for the service, is an effective strategy when trying to realize marketing efforts for platform businesses. Skydreams managed to design a plan that despite their rather little resources resulted in sustained success.

6.2 Essential Factors for Platform Businesses

6.2.1 Timing

Previous literature such as published by Bhargava, Kim and Sun (2013), describes the importance of the right timing when dealing with the commercialization of a platform

business. The correct timing might allow a platform to capture a significant market cap, such as in the case of Skydreams. Skydreams did not have the option to utilize the piggyback strategy in the same way that Codeable did, simply because there were no established players in the field with whom Skydreams could have partnered. However, this is at the same time a vital indication regarding the timing of the launch of Skydreams. While it might have taken several years and a lot of effort to develop and refine their business operations, the timing enabled them to become a pioneer in the Netherlands and today they are one of the biggest companies in the field of home improvement and moving. If a company today chose to enter the same market, it would likely face a lot more resistance from competitors who are already market.

Equally, the timing has been essential for the success of Codeable. Per also mentions the importance of timing and states the fact the share of WordPress-powered sites on the internet was around 13% when they started, and today it is assumed to be approximately 34% (P. Esbensen, 4:51). This development shows that Codeable's success received a natural boost from the simple fact that they chose a rising market. Furthermore, it implies that a platform is affected by and to a degree dependent on the dynamics of the market in which it seeks to operate. While timing by itself is not enough to either solve the chicken-and-egg problem or make the platform successful, it is a vital component and can in combination with successfully and well-designed strategies lead to a momentum that can benefit the platform for many years.

6.2.2 Team Composition

The findings in this study suggest that it is essential for a platform business to employ talented in-house developers if the platform is to be successful. If the founding team – as in the case of Skydreams – does not consist of at least one person with a considerable skill set in the IT field, then it will sooner or later be necessary to onboard an appropriate and technically skilled member to the management team. This necessity arises from the need for constant access to reliable coding and developing skills. The framework for a platform is something that requires continuous monitoring, supervision, fixing, and improvement. For a platform that depends on continually acquiring new users, it is essential that both the underlying functionalities as well as the visual appeal in terms of the design are regularly updated, tested, an optimized. As seen using the Internet Archive, the first Skydreams

website *VerhuisOffertes.com* has changed throughout the years (Appendix L), which indicates that in-house developers are an absolute necessity for any platform business.

As in all internet companies, it is no surprise that Skydreams and Codeable already at the beginning stages included people who are very knowledgeable in the IT field. While the founders of Skydreams set up their first pages themselves using tools like Microsoft Frontpage and Dreamweaver, they soon came to realize that they were looking to build a service that required a skill set that was beyond their own (M. Feenstra, 3:23, 4:04).

The co-founder of Codeable, Tomaz Zaman, was at the time already a very experienced developer who was skilled enough to build the website himself and today he is the CTO at Codeable. The importance of having access to an experienced developer cannot be stressed enough, and it appears that no platform can even consider becoming successful without having capable in-house developers in their team. If there is a need to implement any changes along the way, the company needs to be able to do so in a fast and reliable manner.

The importance also is highlighted by Codeable's management and monitor tool that Per mentioned in the interview (P. Esbensen, 36:35), which aims at reducing friction and easing up all communication processes.

6.2.3 Trust

According to existing literature, it is desirable for every platform to reach a high degree of trust. The more trust the platform exerts, the more likely the users are to not only start using the platform but also to stay engaged with it, which increases their lifetime value for the company. Depending on which market the platform operates in, there are different ways of establishing trust for the various user groups that interact on the platform. One way to do so is by featuring company logos on the website from companies that already are present on the platform.

This is also something that Codeable uses on their website (Appendix M). Already at first glance of the site, this allows potential customers to obtain a positive impression of the platform, making it more likely for them to interact. However, there are additional ways in which the platform service provider can enhance and spread the feeling of trust, security, and reliability amongst the user groups. In times of the GDPR, this is especially important, as users become more aware and sensitive regarding the use of their personal information.

6.2.4 Matching Quality

The literature on two-sided platforms almost uniformly agrees on the importance of creating and capturing value in the interactions that take place on the platform. The platform needs or they will leave the platform and choose to engage with competitors. While it is desirable to ensure a high matching quality from the very beginning, it is still possible to solve the chicken-and-egg problem, even if the matching quality initially is worthy of improvement. The matching quality is important in solving the chicken-and-egg problem, and it requires ongoing efforts for the platform to remain competitive. New technological advancements emerge daily, which could either improve or impede the user experience. If a platform has a low matching quality for too long, the likelihood for the sustained success of the platform significantly decreases.

6.2.5 Reaching Critical Mass

The study of the two case companies Skydreams and Codeable has shown that it is possible for platforms to solve the chicken-and-egg problem in different ways. Regardless of the strategy used to solve the chicken-and-egg problem, Evans (2009) suggests that it is essential for platforms to reach critical mass on time for the platform to survive. Although there may be fluctuations in user numbers, other key performance indicators may help in understanding the overall performance of the platform better, for instance, the proportion between the number of interactions and conversions.

Therefore, purely looking at the number of users present on the platform when trying to determine whether a platform has reached critical mass is very likely to result in different numeric values for each platform. Whether a platform has reached critical mass may rather be determined by analyzing the company's expenditures in proportion to the successful interactions and the revenue generated. As Per stated, he never thought about critical mass per se, but was rather focused on making money from day one and figuring out how to scale the operations (P. Esbensen, 27:10).

6.3 Suggestions for Future Academic Research

While there are many examples on the topic of launching a platform, the existing literature on two-sided platforms mainly focuses on established platforms that have a certain amount of resources and that often already reached the maturity phase. Although the book *Platform Revolution* and for instance, Caillaud and Jullien (2003) dive deeper into the

chicken-and-egg problem, this still leaves a lot of room for future research. Most examples that are used to explain the characteristics and dynamics of a platform business in a two-sided market are well-known companies like Twitter, Uber or Amazon. The focus on these companies, of course, has to do with the fact that these companies are well known all over the world, thereby increasing the likelihood of readers and the academic community being able to relate to the examples.

However, many of these companies solved the chicken-and-egg problem several years ago, which in the age of internet companies is a long period. While this is especially helpful to readers who are new to the field, it seems to neglect the ongoing technological advancements and changes which may also change how platform service providers are trying to solve the chicken-and-egg problem. Therefore, continuous research and the increased output of academic material on the topic is required, ideally targeting companies that today are in their very early stages. Compared to other academic fields, the chicken-and-egg problem is still underrepresented.

Nonetheless, it is necessary to increase the focus in the future, so that the chicken-and-egg problem can be better understood and more easily solved. Filling this gap in the literature would give future entrepreneurs more tools and knowledge on creating innovative ways of solving the problem. Following Stummer, Kundisch, and Decker (2018), this thesis, therefore, acknowledges current lack of evidence and empirical studies, and it also acknowledges the largely untapped potential and the expected learnings this field of research offers for the future.

6.4 Sub-Conclusion

This chapter discussed the essential factors that platform service providers must take into account when launching their platform. The chapter described the importance of the resources that the platform has at its disposal, and how these resources are best allocated and put into use. The chapter furthermore reflected on the effect of building a skilled team as well as building trust in the platform. Finally, the chapter reflected on the current state of the academic literature regarding the chicken-and-egg problem and offered suggestions for future research.

7. Conclusion

This thesis aimed at gaining a better understanding of two-sided platform businesses, how to implement a platform business, and how to scale it. While the market situation plays a crucial role in the success of every platform, it is equally critical for the management team to conduct a proper self-assessment to determine their capabilities. As every two-sided platform business eventually faces the chicken-and-egg problem, it is probably the most prevalent of all issues faced by platform service providers, yet the academic community has yet to intensify its efforts in understanding the problem better. By investigating how the companies Skydreams and Codeable have dealt with this problem, that is, what strategic decisions they made in their pursuit of solving the chicken-and-egg problem, this thesis has provided a better understanding of the means that platform service providers have at their disposal to deal with the problem.

Hence, the two research questions that were at the center of this thesis, were answered: 1) *How is a platform business implemented, and how does it create value?* and 2) *How can a platform service provider overcome the chicken-and-egg problem?*

The findings in this study suggest that an approach that combines the seeding strategy with a micro market focus can result in a tremendous success for the platform. An imbalanced user acquisition approach, that is, a sequential entry, has proven to be successful for both case companies. Initially, the focus was to build the supply side, before attracting any users on the demand side. This finding shows that the seeding strategy needs to be accompanied by and complemented with further efforts to populate the demand-side on the platform. Apart from the micromarket strategy and the seeding strategy, Skydreams has successfully utilized direct marketing strategies, whereas Codeable started with a combination of the micromarket strategy and the seeding strategy, and then successfully supplemented it with the piggyback strategy through their collaboration with WooThemes.

It is noteworthy that even though Skydreams and Codeable both started by using the micromarket strategy in combination with the seeding strategy, they ultimately employed them differently. Initially, Skydreams incurred costs in acquiring the users on the supply side as well the demand side, while Codeable only incurred costs in acquiring users on the demand side, by giving away some of their equity. For continued customer acquisition,

Skydreams spent large amounts of money on Google Ads, while Codeable only engaged in affiliate partnerships as their primary source of traffic, which ultimately lead to organic growth as well.

While it is important to ponder, where to acquire users from, it is also crucial to ensure a frictionless entry for users who engage with the platform. A frictionless entry and a high matching quality have rightfully been a big focus area for both Skydreams and Codeable. It is essential for any platform service provider to ease users into engaging with the platform while creating a pleasant experience based on a feeling of trust and security.

Ultimately, the goal of any platform is to create and capture value, while making sure that every participant receives a fair share of the value. As seen by the findings in this thesis, many factors play a role in the rather complicated endeavor of establishing a platform business. At most, the results presented in this study contribute to filling the void in the literature regarding the chicken-and-egg problem and how platform service providers can overcome it and create the conditions for the sustained success of the platform.

To ensure that future entrepreneurs, academics, students as well as organizations gain a better understanding of the complexity of a platform and how to launch it successfully, more research and more case studies are necessary for the near future, and it will be interesting to follow the academic field on this topic.

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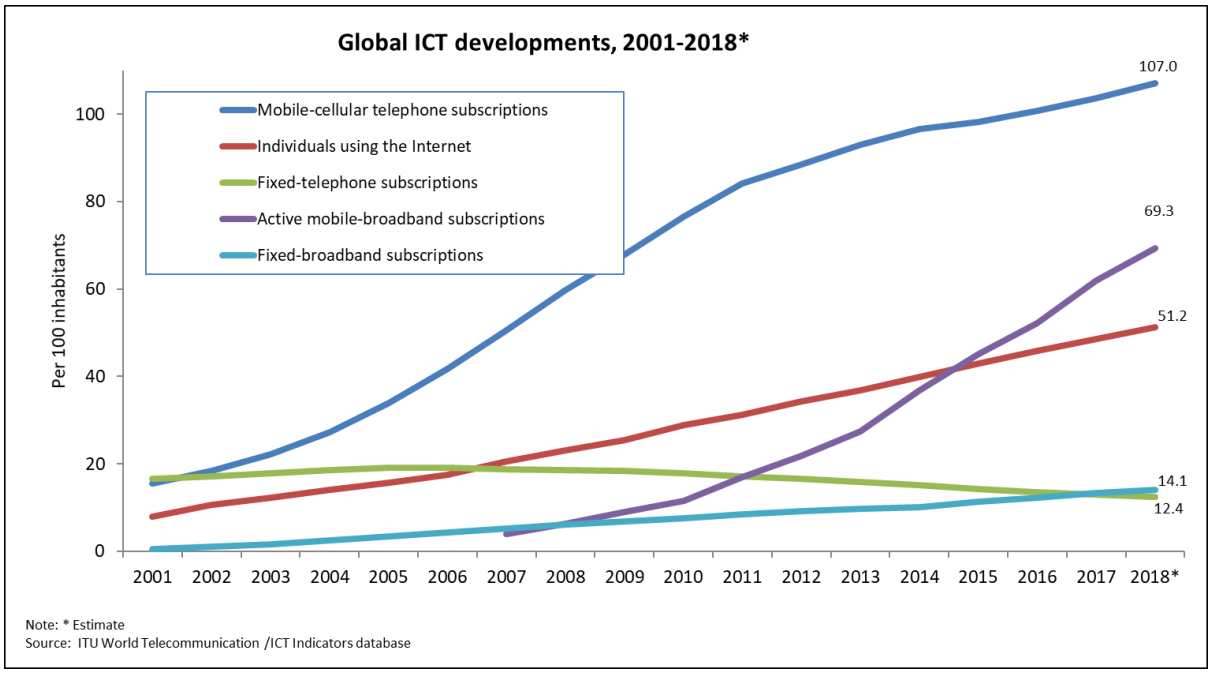
9. Appendices

A. Global ICT Developments



B. Interview Questions Template

Interview

1. What was the initial vision and how did you recognize the opportunity?

2. What were the first considerations regarding customer acquisition and how were they implemented?

3. Who were the very first users and how were the first 100 users acquired?

4. At what point did your user base reach the critical mass, and how did you notice it?

5. Is one of the user groups subsidized, i.e. are you specifically investing in one side to attract users to the platform?

6. What was implemented at the strategic level that made the platform attractive to participants on both sides?

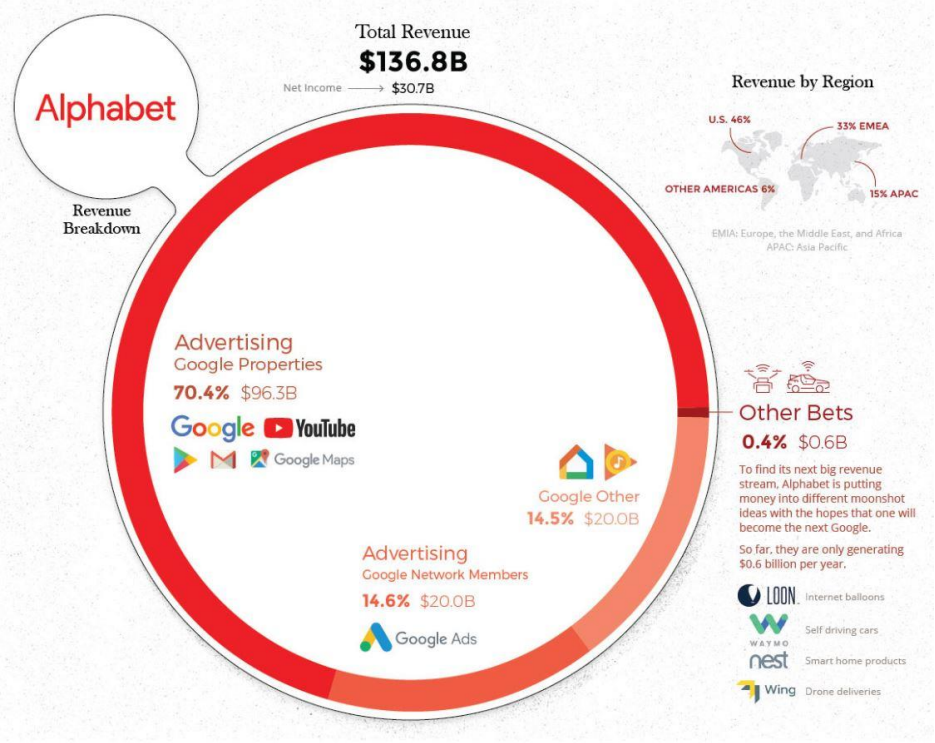
7. What mistakes were made and what went well regarding the customer acquisition?

8. In your opinion, what conditions must be met so that users decide to participate in a platform?

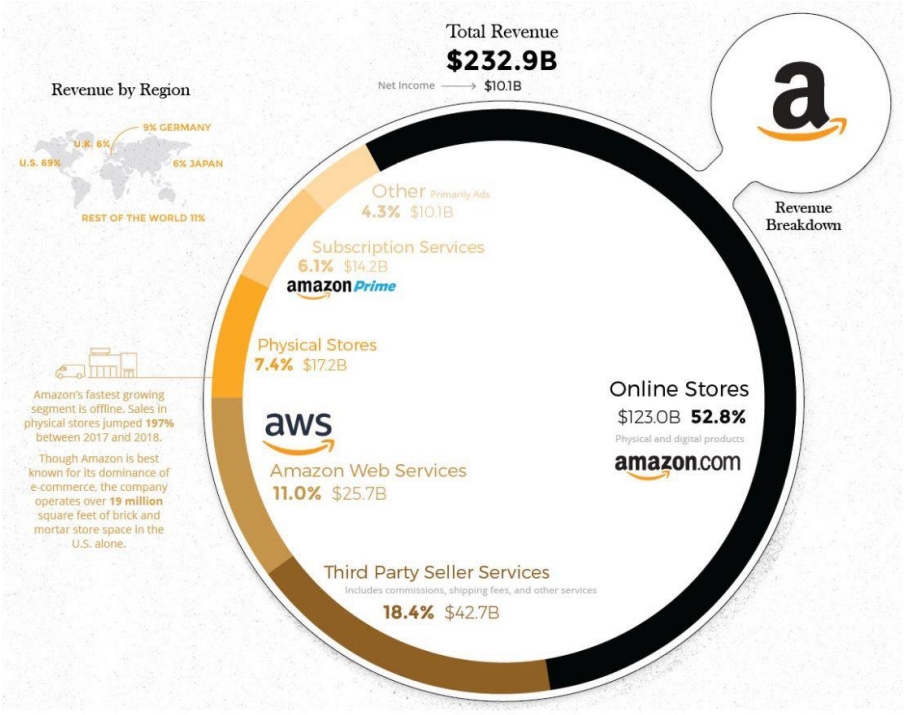
9. How has the process of the customer acquisition changed, if we compare the very beginning of the company and today?

10. What were the greatest learnings about customer acquisition?

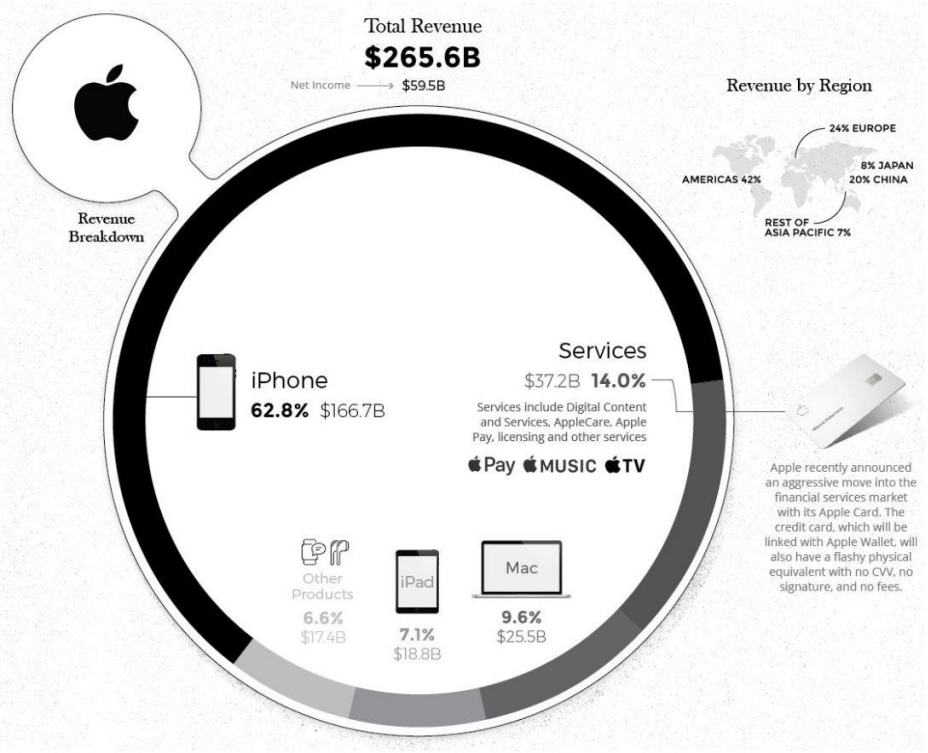
C. Revenue Breakdown – Alphabet



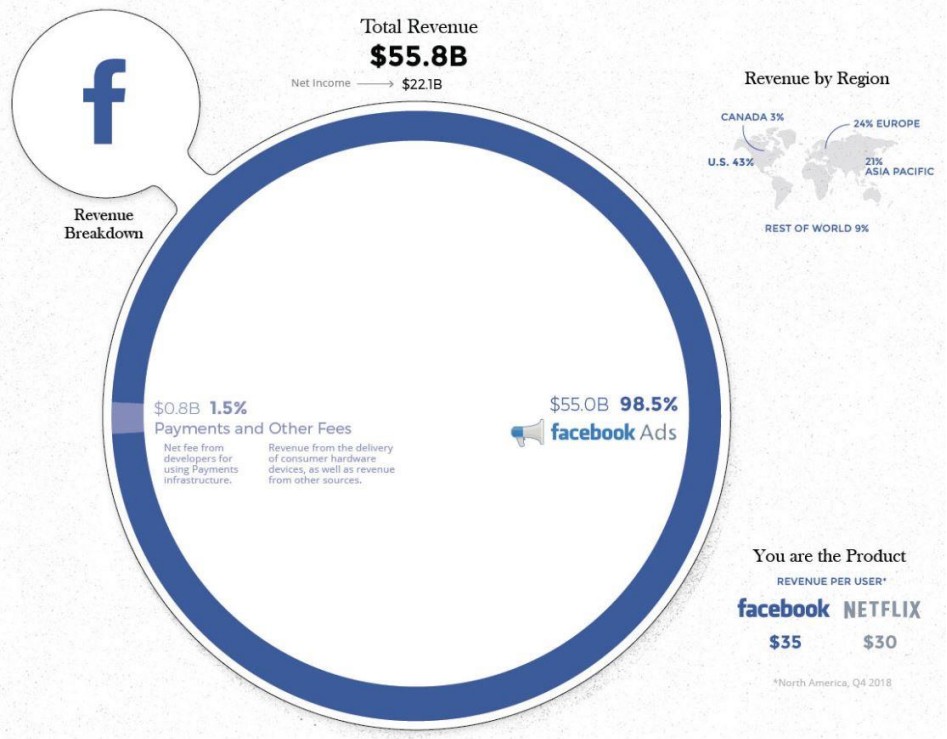
D. Revenue Breakdown – Amazon



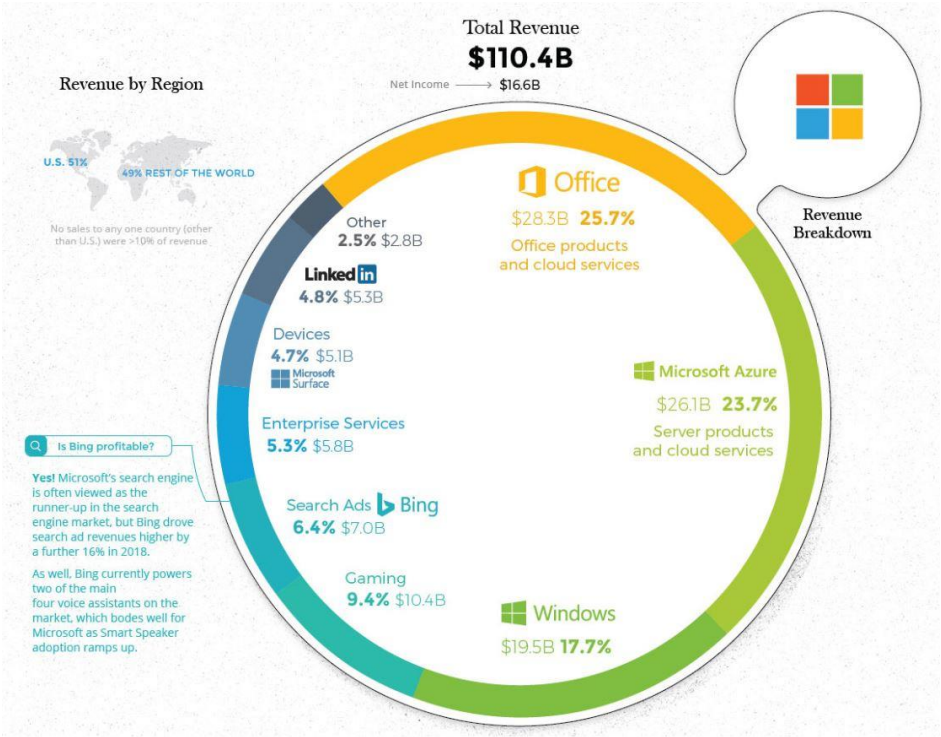
E. Revenue Breakdown – Apple



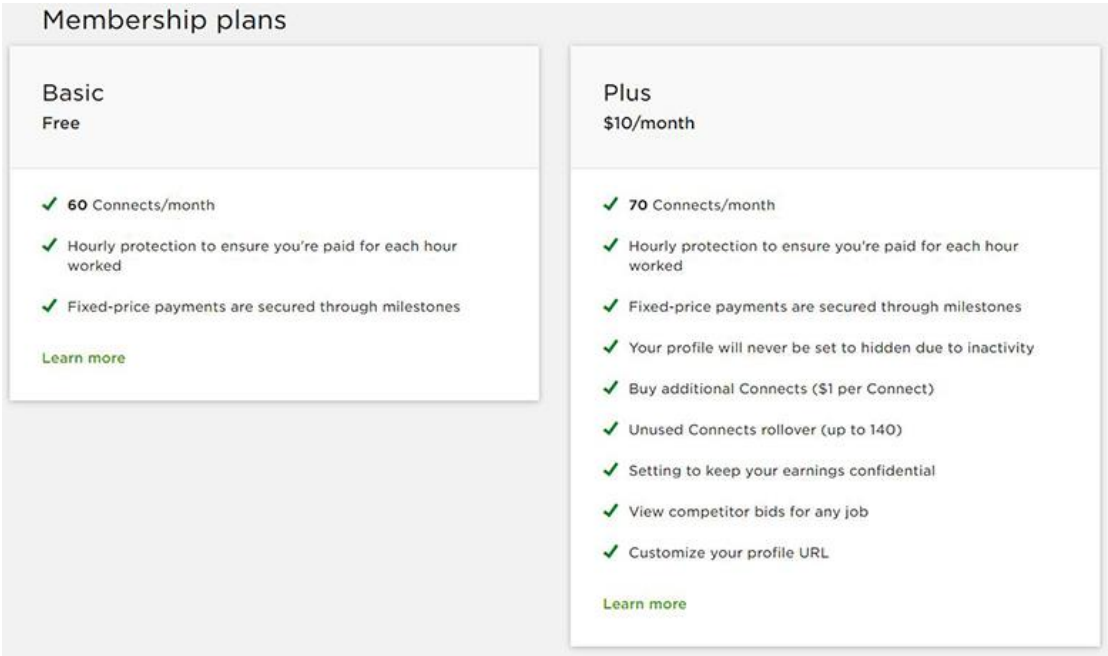
F. Revenue Breakdown – Facebook



G. Revenue Breakdown – Microsoft



H. Upwork – Freelancer Membership Plan

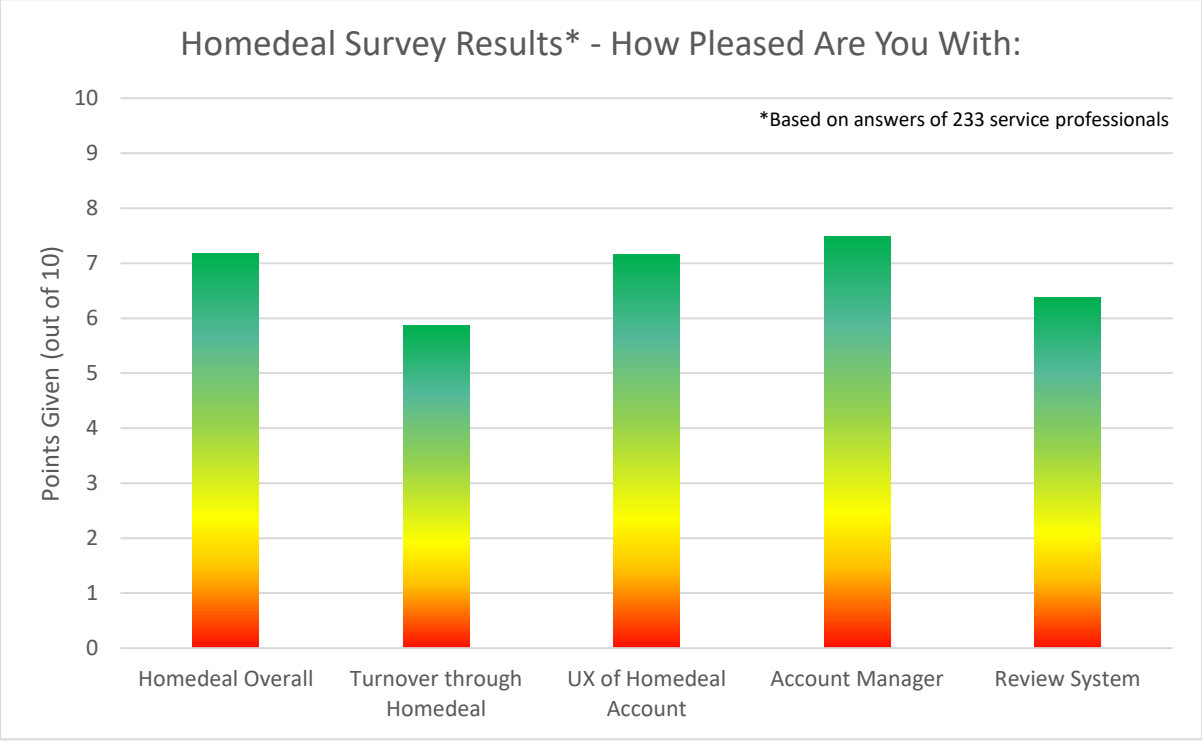


I. Upwork – Agency Membership Plan

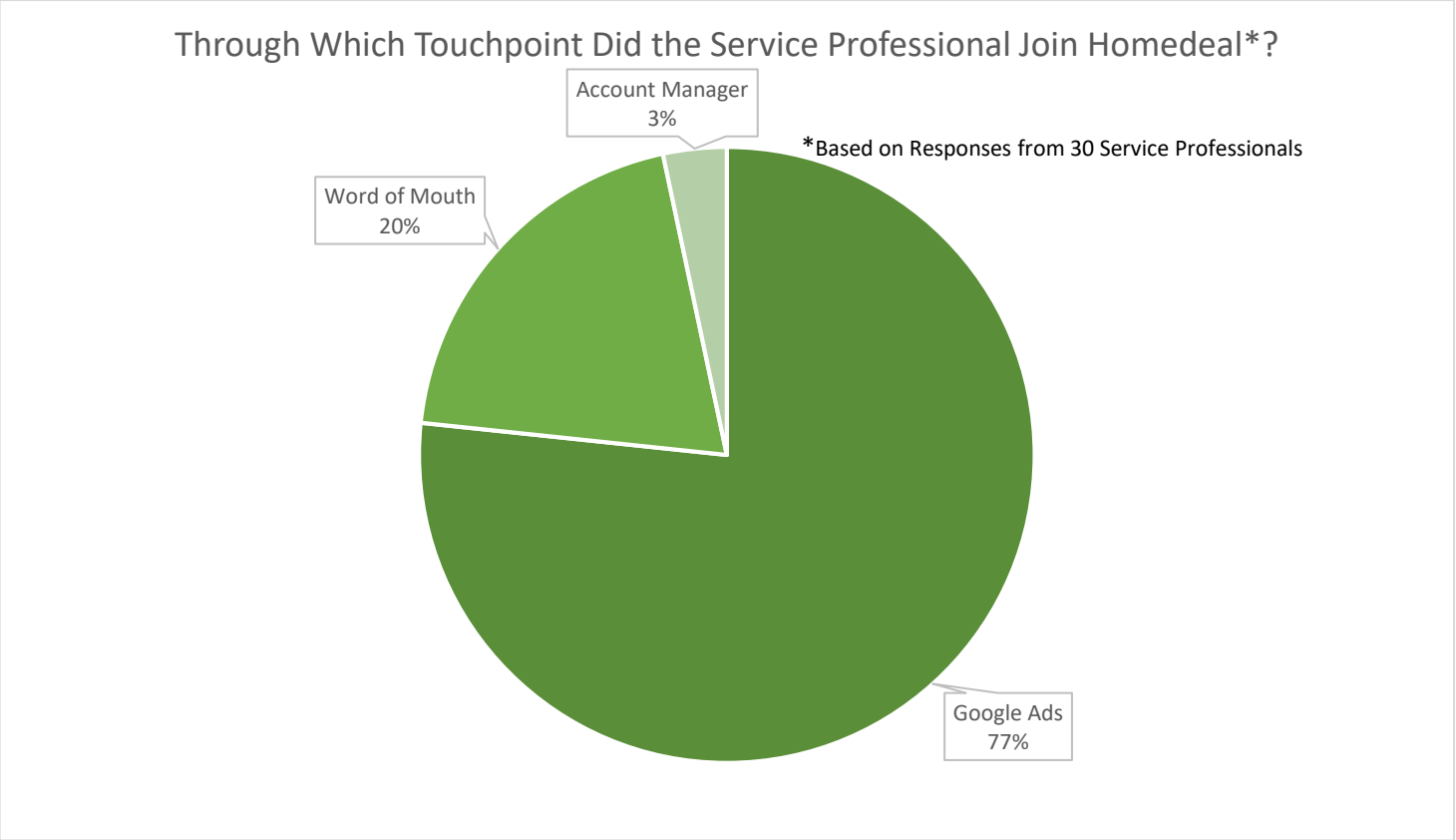
	Basic Select Basic	Plus Select Plus	Business Contact Us
Verified freelancer work history and reviews on Upwork	✓	✓	✓
Safe, easy payments	✓	✓	✓
Built-in collaboration features	✓	✓	✓
Upwork Payment Protection Plan	✓	✓	✓
Customer Support	✓	Premium	Premium
Reporting	Transaction details	Team reporting	Company reporting
Job post and talent sourcing assistance		✓	Advanced
Dedicated account management		✓	Advanced
Invites to freelancers	3 per job post	15 per job post	Unlimited
Featured Jobs upgrade		✓	✓
Consolidated invoicing and billing			✓

*3% payment processing and administration fee on all payments to freelancers.
**10% service fee on all payments to freelancers. Includes payment processing and administration fees.

J. Homedeal – Customer Satisfaction Survey



K. Homedeal – Free Trial Survey



L. VerhuisOffertes.com – Change of Design 2009-2019

2009

2011

2019

M. Codeable.io – Trust Elements on Website