Managing Brands in the Platform Economy – an Integrated Perspective

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Abstract

The platform economy is rapidly transforming various industries, leading to an increased interest in both research and management practice. Yet, research on digital platforms, from a holistic marketing management perspective is scarce. This dissertation closes this gap in the literature and examines the novel business model from a marketing point of view.

Platform businesses facilitate the interaction between suppliers and customers. In order to have a comprehensive understanding of marketing in the platform economy, all three perspectives were taken into account, namely platform, supplier and customer point of view. From the platform perspective, a single case study, combined with qualitative interviews identified different modes of collaboration, strategic decisions and branding options for digital platforms. Second the dissertation investigates the supplier`s perspective leading to four strategies for conventional companies to cope with digital platforms which can be integrated to a proposed platform management plan. Finally, four consumer experiments are conducted to identify customer brand preferences during the purchase on digital platforms.

Combining all three perspectives yield a comprehensive understanding of the relationship between suppliers, platforms and customers. This dissertation assists managers of both platform and supplier companies to understand of the role of each of the participants in the triangular business model. Moreover, the dissertation provides a solid foundation for future research in the fields of digital platforms, channel management and marketing in mediated environments.

Zusammenfassung

Die Plattformökonomie hat verschiedene Branchen transformiert. Aufgrund dieser Veränderungen beschäftigten sich Manager und Forscher vermehrt mit diesem Geschäftsmodell. Dennoch sind Untersuchungen zu digitalen Plattformen aus einer ganzheitlichen Marketingmanagement Perspektive kaum vorhanden. Die vorliegende Dissertation schließt diese Lücke in der Literatur und untersucht das neuartige Geschäftsmodell aus dem Blickwinkel des Marketings.

Plattformen erleichtern die Interaktion zwischen Anbietern und Kunden. Um ein umfassendes Verständnis des Marketings in der Plattformökonomie zu erhalten, wurden alle drei Perspektiven berücksichtigt: Plattform-, Anbieter- und Kundenperspektive. Aus der Plattform-Perspektive werden in einer Fallstudie, kombiniert mit qualitativen Interviews, verschiedene Arten der Zusammenarbeit, strategische Entscheidungen und Branding-Optionen für digitale Plattformen identifiziert. Zweitens leitet die Dissertation vier Strategien für konventionelle Unternehmen zum Umgang mit digitalen Plattformen ab, die in einen ganzheitlichen Plattformmanagementplan integriert werden können. Schließlich werden vier Verbraucherexperimente durchgeführt, um die Markenpräferenzen der Kunden beim Kauf auf digitalen Plattformen zu ermitteln.

Die Kombination aller drei Perspektiven führt zu einem umfassenden Verständnis der Beziehung zwischen Anbietern, Plattformen und Kunden. Darüber hinaus bietet die Dissertation eine solide Grundlage für zukünftige Forschung in den Bereichen digitale Plattformen, Distributionsmanagement und Marketing in Plattformumgebungen.

"The task is not to see what has never been seen before,

but to think what has never been thought before about what you see every day."

- Erwin Schrödinger

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List of Abbreviations

B2B	Business-to-Business
B2C	Business-to-Consumer
B2G	Business-to-Government
CEO	Chief Executive Officer
CMO	Chief Marketing Officer
CRM	Customer Relationship Management
e.g.	exempli gratia (for example)
esp.	especially
FinTech	Financial Technology
FSP	Full Service Provider
GDP	Gross Domestic Product
Gen Y	Generation Y
Gen Z	Generation Z
i.e.	id est (that is)
InsurTech	Insurance Technology
ICT	Information and Communication Technology
IT	Information Technology
KPI	Key Performance Indicator
OKR	Objective Key Results
SGD	Singapore Dollar
SME	Small Medium Enterprise
TV	Television
vs.	versus (against)
VP	Vice President

1. Introduction

Products and services consumed daily are often mediated through digital platforms: Whether we download an App from the Apple App store, send a message to a friend via WhatsApp or purchase a pair of sneakers from our neighbour on ebay.com; each transaction between the supplier and ourselves is made possible through a platform business model. The main purpose of a platform business model is to initiate the exchange of goods and services, thus facilitating value creation for each party using the same platform (G. Parker, Van Alstyne, & Choudary, 2016).

Such digital platforms are reorganizing and creating new industries without clear borders, whereas classical companies compete in multiple industries (Moser, Wecht, & Gassmann, 2016). These so called shifts around digital platforms may lead to an estimated $60 trillion revenue being redistributed by 2025 (McKinsey, 2018). This shift is continuously taking place and already some industries have been disrupted by platform businesses. Advertising (Facebook, Google or Instagram), travel (Skyscanner, Airbnb or booking.com) or retail (Zalando, Amazon or Alibaba) have been reorganized around these digital platforms. Often, due to the nature of the network effects underlying platform business models, platform monopolies can arise and lead to a so called "winner takes all" situation, in which there is one dominant company in a market (Cennamo & Santalo, 2013; G. G. Parker & Van Alstyne, 2005). The success of platform business models has earned the attention of both managers and scholars (De Reuver, Sørensen, & Basole, 2018; Eaton et al., 2015; Ozalp, Cennamo, & Gawer, 2018; Ramaswamy & Ozcan, 2018; L. D. W. Thomas, Autio, & Gann, 2014; Wallenstein & Shelat, 2017). Many traditional companies such as Marriot, Kloeckner or Daimler aim to – at least in some parts - transform their business model into a platform business model (Leijon, Svenheden, & Svahn, 2017). In academia, this phenomenon has already been examined from many different aspects, such as organizational studies (Prahalad & Hamel, 1990), product family stream (Simpson, 2004), market intermediary (Hagiu & Wright, 2015a) or platform ecosystem (L. D. W. Thomas et al., 2014). However, both in academic and practitioners' circles, the role of marketing on digital platforms has not attracted much attention, as the phenomenon has only recently evolved (De Reuver et al., 2018).

There is a lack of attention especially for branding scenarios between suppliers and platforms. Marketing in the context of digital platforms is complex as there are two different customer groups (the supplier and the customer) which have to be taken into account. Due to these novel business models and shifts in industries, marketing management has changed. The role of marketing has changed, as intermediaries have evolved, and multiple new brand alliances have been born. Therefore, the aim of this thesis is to examine and understand how suppliers and platforms can leverage their brands and successfully collaborate.

1.1 Problem statement and relevance description

Platform business models "enable exchanges between suppliers and consumers based on a specific set of rules" (G. Parker et al., 2016, p.52). Business models based around this concept are nothing new (J. Rochet & Tirole, 2004). Marketplaces in ancient Rome connected merchants with customers. Newspapers connect advertisers with subscribers. The principle of creating value through connecting different parties has existed for centuries.

However, due to the possibilities of modern information technology, the number of assets which have to be owned in such a business model has considerably decreased (Lewandowski & Co-investigator, 2013). Marketplaces or business models based around the connection of two or more groups no longer need physical spaces for buyers and merchants to meet. Newspapers no longer need physical paper to connect advertisers with subscribers. Platforms create virtual meeting points and software has enabled platforms to scale at a higher pace and cheaper price, automate participation and analyze data to create value for all participants (Constantinides, Henfridsson, & Parker, 2018; M. W. Van Alstyne, Parker, & Paul Choudary, 2016)

Information technology, such as microchips, on which digital platforms are built is regarded as the digital platform infrastructure (Constantinides et al., 2018). Digital platforms would not have grown to that extent without the necessary digital infrastructure and the decreasing costs of processing power (Adomavicius, Bockstedt,

Gupta, & Kauffman, 2008). This digital infrastructure enables interaction by providing computing power and networking capabilities. The internet, open software standards or smartphones are examples of digital infrastructure on which digital platform business models have been built (Hanseth & Lyytinen, 2010). Ride hailing without a smart device including geographical positioning technology or the internet would not be possible.

Often platform business models evolved when new technologies were introduced into a market. Digital infrastructure differs from traditional infrastructure as it has the ability to collect, connect and store information across multiple devices and systems (Constantinides et al., 2018).

Scholars and practitioners have acknowledged that digital platforms built on new digital infrastructure technologies are revolutionizing various different industries from retail to media (Moser et al., 2016). Many of the most valuable companies today (Alibaba, Alphabet, Amazon, Facebook etc.) have a comparatively young history and managed to scale into global companies within two decades. Simultaneously, long-lived incumbent companies are experimenting with a platform based thinking (M. Van Alstyne & Parker, 2017). For example, Kloeckner, a traditional German steel manufacturer founded in 1902, is experimenting with a marketplace for offering commodity steel (Economist, 2015). Successful platform business model examples (regarding market penetration) can be seen in various industries, such as mobility (UBER), accommodation (AirBnB), banking (Transferwise), travel (booking.com) or even in B2B markets such as chemical engineering (CheMondis).

Apart from the digital infrastructure another reason why platforms can penetrate and challenge incumbents at such a rapid pace is due to the fact that they (often) don't own many physical assets (Teixeira & Brown, 2016). For example, AirBnB does not have to own any property to enter a new city, yet, a traditional hotel chain would have to purchase property to expand. The nature of the platform business model or platform based ecosystems is to provide value through facilitating an exchange between all participants, which can be customers, suppliers or third party actors (Jacobides, Cennamo, & Gawer, 2018). When platforms successfully enter a market, they can lead

to significant changes in market share (Downes & Nunes, 2013; Zhu & Furr, 2016). This rapid disruption - also referred to as “big bang disruption” - has three distinct characteristics: 1. Undisciplined strategy, 2. Undescribed growth 3. Unencumbered development (Trabucchi, Talenti, & Buganza, 2019).

1. Undisciplined strategy: Scholars have claimed that traditionally a company`s business strategy should follow one of three value drivers: Operational excellence, product leadership or customer intimacy (Treacy & Wiersema, 1995). Companies which follow the operational excellence strategy are aiming to offer the lowest cost products; companies which are aiming for product leadership want to offer their customers continuous innovation and finally companies which follow customer intimacy, offer their customers bespoke offerings. Treacy & Wiersema (1995) claim, that companies should focus on one of the three strategies otherwise they face the risk of being “stuck in the middle”.

   However, “big bang disruptions” compete with existing products on all three scales. In the navigation market, after the introduction of google maps, the incumbents - Garmin and TomTom - lost over 70% of their market capitalization (Downes & Nunes, 2013). Google maps was more innovative, much cheaper (free) and more customizable (Kostoff, Boylan, & Simons, 2004).

2. Undescribed growth: Based on E. Rogers (1962) the traditional life cycle of a product is split into five distinct customer groups: Innovators, early adopters, early majority, late majority and laggards. This curve is a simple bell curve. Downes and Nunes (2013) argue that big bang disruption only has two customer segments: Trial users and everyone else. If companies perfect the product with a small trial group, the adaption rate to the rest of the market can happen within days.

3. Unencumbered development: The increase of computing power, open source software and online software guides are making the development of new

> software globally possible (Rifkin, 2014). Often, ready-made accessible components are combined to create a novel software solution. For example, Twitter was created during the SXSW (South by Southwest conference) in 2007 during a hackathon. The initial idea was to create a messaging system where a message could be sent to multiple people. The technology blocks were already available beforehand, however, it was the right combination of the blocks that enabled the successful breakthrough (Downes & Nunes, 2013).

The century old marketplace business model fuelled by novel digital infrastructure is being threatened by bang disruptions. Practitioners then struggle to adapt. Van Alstyne et. al. (2016) describe the new rules of strategy of platform business models as “the firm inversion”. They claim that the main strategic objective of a platform is to orchestrate and not control its resources. A platform should “not focus on optimizing internal processes but rather facilitate external interactions”: For a platform to be successful it must optimize the interactions between e.g. suppliers and customers.

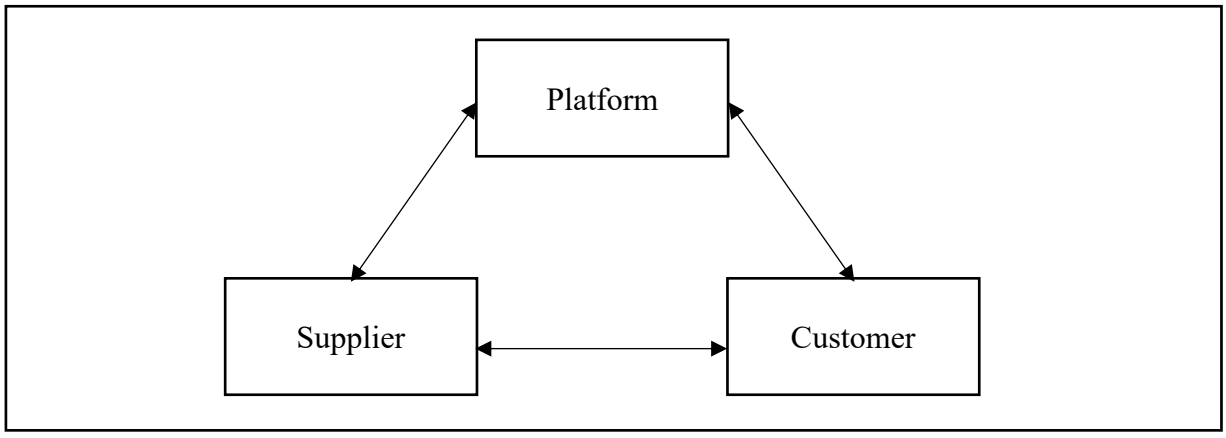
However, evidence from marketing practice suggests that the cooperation between platforms and their suppliers isn’t always harmonious. In December 2019, the sportswear giant Nike decided to end their two-year trial project with the large online retailer Amazon.com. The official statement was that Nike´s focus is to “elevate customer experience through more direct, personal relationships” (BBC, 2019). Furthermore, the Swedish furniture producer IKEA stopped their cooperation with Amazon in the US and has stated its intention to focus more on direct consumer sales (CNBC, 2020).

In 2012, five major hotel chains launched a joint metasearch engine called “Roomkey”. From that time onwards to the presence, the market is dominated by online travel agent (OTA) platforms, such as booking.com. The joint effort Roomkey, launched by the large hotel incumbents InterContinental Hotels Group, Hilton Worldwide, Hyatt Hotels Corporation, Mariott International, Choice Hotels International and Wyndham worldwide was an initiative to be less reliant on the online travel agencies (TechCrunch, 2012). The luxury hotel owner Eugen Block even claimed that the booking portals/

agencies were mere “parasites” (Welt, 2013). Strong brands, such as Nike or Hilton do not want to lose touchpoints with their customers and the control of their brand to possible big bang disruptors.

There are, however, some examples where digital platforms are successfully collaborating with strong supplier brands. The Chinese online marketplace Tmall, a spill off from Taobao / the Alibaba Group, has successfully managed to collaborate with Adidas, Burberry, Louis Vuitton and Mini Cooper. Their concept is to create a shop-in-shop website where the supplying brands keep their authority over the website. Unlike Amazon, suppliers are in complete control on how the shop on the Tmall site is designed. In order to understand the changing role of marketing, as digital platforms “mediate different groups, such as buyers and sellers”, a holistic approach of the business model is necessary. By definition, a platform business model has at least three independent parties: The platform, at least one supplier and at least one customer. The platform has to facilitate the interaction between supplier and customer. The supplier has to collaborate with the platform and appeal to the customer. The customer interacts both with platform and supplier. Subsequently there is an interaction between all participations in the triangular business model, which can be seen in the figure 1 below.

Figure 1: The triangular platform business model



In order to fully understand the role of brands and be able to give recommendations for marketing managers of both platform and supplier companies, a holistic approach is

necessary (Hagiu & Wright, 2015b). Throughout the dissertation the three different parties - supplier, platform and customer - are examined.

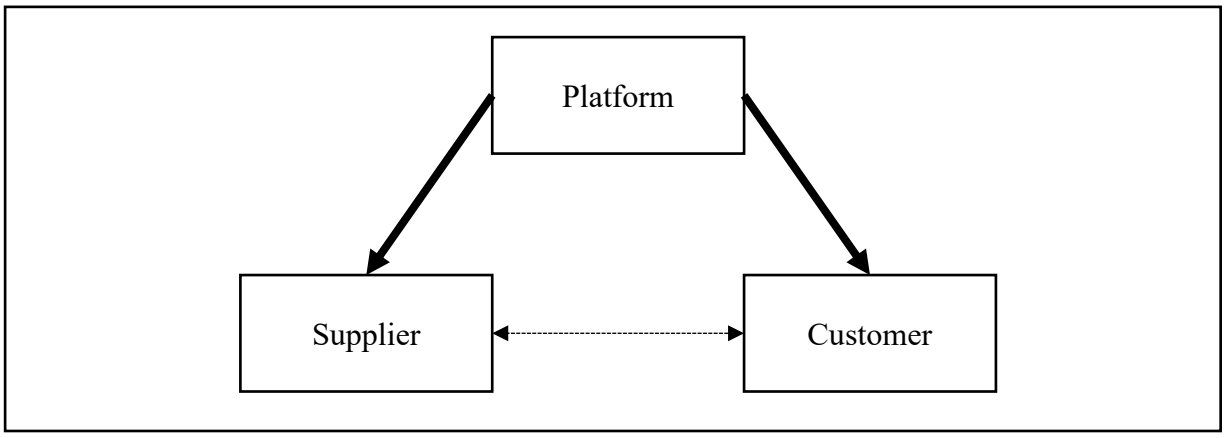
First the platform perspective is taken into account. The dissertation uses multiple research methods to answer the relevant questions marketing managers face. First a single in-depth case study of the Singaporean start-up Parcel Perform highlights the relevant issues platforms face, second successful platforms are analyzed regarding their collaboration strategy with suppliers and third success factors are identified in qualitative interviews.

Relevant questions and issues marketing managers of platform companies are answered, such as:

- How do platforms successfully collaborate with suppliers?
- How should platforms integrate their suppliers?
- When should platforms focus on appealing to customers and when to suppliers?
- What are the different strategies for a successful collaboration with suppliers?

In chapter 3 and 4 the previously mentioned questions are dealt with. Figure 2 shows the relationships which are examined.

Figure 2: The platform perspective

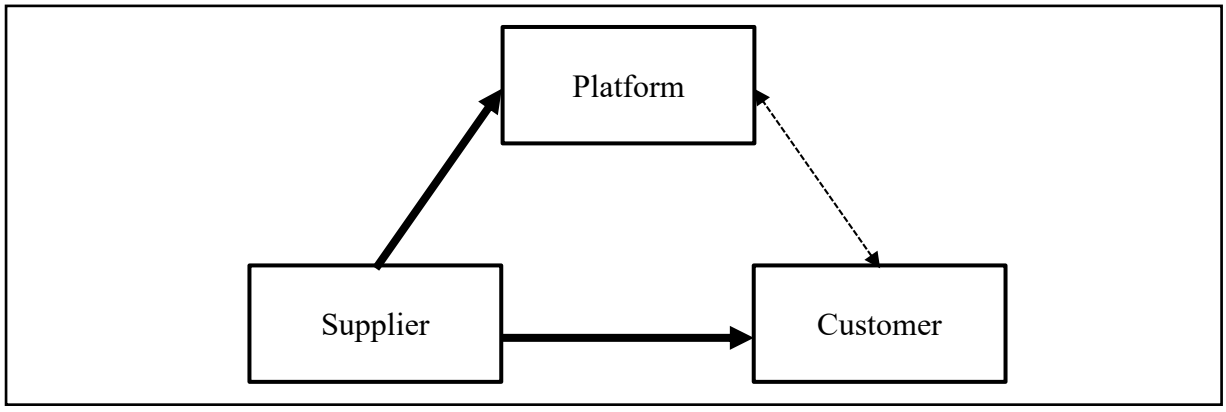


After examining the phenomenon from the platforms´ perspective, next the supplier perspective is analysed. Digital platforms are evolving in many different industries and suppliers have to learn to cope with the novel business model. Marketing managers from traditional pipeline companies, which have a linear value chain, are faced with market intermediaries. The potential collaboration with these market intermediaries rases new questions for marketing managers, such as:

- Which strategies for incumbents exist in the "platform economy"?
- In which phase of the customer journey do digital platforms evolve?
- How do suppliers successfully collaborate with digital platforms?
- When and how should suppliers consider a collaboration with a digital platform?

With qualitative interviews chapter 5 highlights the pressing issues and collaboration strategies for suppliers in the platform economy. Figure 3 shows the relevant relationships which are examined from the supplier´s point of view: On the one hand suppliers have to appeal to customers and on the other hand suppliers have to learn to collaborate with platforms to foster further engagement.

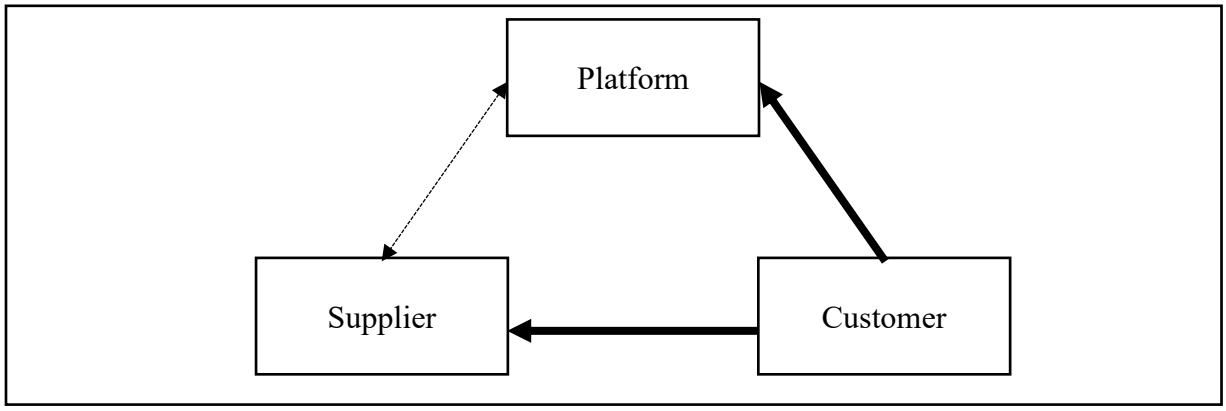
Figure 3: The supplier perspective



Lastly, the customers point of view is presented. In order to understand which preferences consumers, have when purchasing on an online platform, four quantitative experiments are conducted. These experiments shed light on how customers evaluate the supplier and the platform brand in multiple scenarios. These insights help both

platform marketing managers and supplier marketing managers understand the role of brands during a purchase on a platform. Figure 4 shows the examined relationships.

Figure 4: The customer perspective



By taking all three perspectives into account all interactions between the three relevant stakeholders in a platform business model are evaluated. This enables a holistic overview of the novel mode of collaboration in the platform economy from a marketing perspective.

In summary, evidence from research and management practice suggests that the collaboration scenarios between digital platforms and their suppliers do vary. It is more critical than ever to understand which types of collaboration benefit the platform, supplier or customer, respectively. Marketing managers from both platform companies and supplier companies struggle to understand the role of branding in a platform economy. Platforms need to understand the relevance of their supplier´s brands and supplier brands need to understand the potential threat of platform brands. These practical challenges raise the research question:

How do platforms and suppliers leverage their brand in a dyadic relationship?

1.2 Research gaps and goals

Previous research has already addressed some topics regarding the platform-supplier relationship (Armstrong, 2006; Broekhuizen et al., 2019; Fuller, Jacobides, & Reeves,

2019) However, there are still many white spots regarding branding on digital platforms. Moreover, the Journal for Consumer Research published a call for paper in a special issue to understand “brands in mediated environments, such as digital platforms”. Specifically, there are at least three crucial aspects. Overall, there is a missing understanding and theoretical framework on how platforms evolve by harnessing brands from different value sources.
Second, it remains unclear which brand collaboration scenarios do exist between platforms and suppliers.
Third, a comprehensive understanding of customer brand preference regarding platforms and suppliers is lacking.

Combining these three aspects provides a complete view of the role of marketing in the platform economy.

The goal of this dissertation is to address the critical research gaps related to branding on digital platforms with an in-depth case study, qualitative interviews and quantitative experiments.

Research gap 1: Both management literature and academic research have developed various models on how digital platforms evolve and grow over time (T. Eisenmann, Parker, & Van Alstyne, 2011; Muzellec, Ronteau, & Lambkin, 2015; Teixeira & Brown, 2016). However, little is known about the role brands play for platform growth. Furthermore, the relationship between platforms and the supplying companies from a marketing context has not been fully understood. Finally, a differentiation of products and services is missing between the transactions, which are taking place on a platform. Consequently, Verhoef et. al. (2019) called for diversification strategies of digital platforms and their success factors. Thus, the first goal of this dissertation is to design a framework and identify the success factors for strategies to allow digital platforms to grow using supplier brands. Digital platforms have varying approaches regarding the openness of their suppling companies (T. R. Eisenmann, Parker, & Van Alstyne, 2009). Studies have shown that platforms differ in two distinct openness characteristics: access and authority (K. Boudreau, 2010). In academia studies have been conducted regarding

the access and authority of platforms mainly in the information technology sector (Benlian, Hilkert, & Hess, 2015; T. R. Eisenmann et al., 2009; Wessel, Thies, & Benlian, 2017). The decision to open up a technical platform has the potential to accelerate growth. However, it also leads to the loss of control over the platform and consequently the loss in value capture (K. Boudreau, 2010). Evidence from case study research shows that there is a trade-off between granting access and appropriating value (von Hippel, 2005). The main focus of most information technology studies is on how to incentivize external developers to join and develop software for existing platforms (e.g. how iOS and Android, two mobile phone operation systems, tried to foster external app development (Tilson, Sørensen, & Lyytinen, 2012)). However, in depth research on platforms and suppliers regarding brands is lacking. The question arises, how digital platforms can cooperate and foster external brands to join their platform and which potential brand alliances do exist.

Research question 1: How can digital platforms leverage their suppliers' brands?

Research gap 2: Evidence from marketing practice shows that many strong brands are reluctant to join interaction platforms, as e.g. the chairman of Birkenstock Oliver Reichert claims: "We don't need Amazon" (Wiebking, 2019). Whenever a supplier collaborates with a digital platform subsequently a brand alliance evolves. Whenever two brands decide to present their products or services together it is considered as such. There are several distinct types of brand alliances with specific consequences for the partnering companies. Few information is available on the access and openness regarding brand alliances between digital platforms and suppliers. Consequently, the Journal of Consumer Research in a special issue for 2021 calls for papers which will examine how "brands gain and lose meaning, particularly in mediated environments (such as Amazon)" (JCR, 2020).

Research question 2: How can incumbents leverage digital platform brands?

Research gap 3: Extensive research in marketing and strategy has shown how digital interaction platforms have transformed the retail landscape. Current research on the

impact of digitalization in the retail sector has mainly focused on customer engagement, pricing, consumer value, fraud and online recommendations (Hänninen, Smedlund, & Mitronen, 2018). For example, academics have shown that in the CD and book industry, online offerings are more price competitive than traditional offline retail stores (Lee, Lee, Kim, & Lee, 2003). However, the existing research mostly did not consider the concept of digital interaction platforms such as Amazon. This novel business model can offer a higher convenience and a broader selection of products for their customers. These aspects have not yet been addressed in academia.

Thus, traditional retailers have to find strategies for how to deal with digital platforms. Gawer et. al. (2019) proposes three different strategies for how to deal with digital platforms: Buying a platform, building a new platform or belonging to an existing platform. Academics from business strategy have mainly focused on how incumbents can build or buy a digital platform. Little research has been conducted in the field of how companies and especially retailers can successfully join an existing platform. The consequences for retailers belonging to a platform are brand spillover effects between retailers, producers and platforms. Examples from marketing practice have shown that a collaboration with platforms can lead to a loss of touchpoints and the customer experience (e.g. Nike on Amazon). For example, Boarders, a large bookstore chain from the US, partnered with Amazon to sell their books online. After breaking off the seven-year partnership in 2007, the vice-president of e-business Kevin Ertell claimed that "essentially it was our logo on their site". Amazon was profiting from Boarders´ strong brand mainly in a one-way mode (Corbin, 2008). In 2011 Boarders filed for bankruptcy (Gilbert, 2015). Some existing literature has examined the role of product brands and retailer brands in brick and mortar stores. However, there is a missing understanding how and which spill-over effects exist in a digital platform context (online). In summary, there is a missing understanding in academia, how retailers can collaborate with existing platforms and what the consequences are for product brands, retailer brands and platform brands.

Research question 3: How do consumers evaluate the brand collaboration between suppliers and platforms?

1.3 Epistemological research background

The present study will be conducted using both qualitative and quantitative research methods based on the paradigm-oriented research approach (Ulrich, 1982). This enables that situations and challenges are derived from actual business practice, for example how digital platforms collaborate with their complementors from a brand perspective. As Tomczak (1992, p.83) claims, "reality-oriented research tries to describe, explain and solve problems and phenomena by means of theory-based empirical approach." According to this reality-oriented research paradigm - the empirical data analysis based on a theoretical reflection - this research will be conducted iteratively with multiple data sources. The author aims to combine multiple methods. The study will use explorative research (e.g. expert interviews on how platforms leverage brands) with qualitative methods (case study with platform start-up) and qualitative methods (how do customers evaluate complementor brands on platforms) to develop a model which ideally reflects reality closely. Key aspects for relevant and rigorous research are clarity, verifiability, reproducibility, validity, utility and criticality (Dossabhoy & Berger, 2002; Shrivastava, 1987; K. W. Thomas, Jr, & Tymon, 1982; Varadarajan, 2003).

As the research conducted is based on challenges in managerial practice, the following principles were chosen (Dyllick & Tomczak, 2009)

- Problem orientation: The research methods are chosen according to the subject (branding on digital platforms), research question (chapter 2) and the current literature (chapter 2).
- Validity: Errors of specific research methods can be reduced by choosing different research methods and thus increases the validity (Green & Tull, 1982).
- Diversity of Results: Connecting different research methods from various angles delivers diverse results. Furthermore, during the conducted analyses different views of reality are taken into account.
- Efficiency of Research: Through a combination of different methods, the intended results (understanding how branding works on digital platforms) can be achieved with adequate effort.

Thus, to enable an impact for both practitioners and academics the mentioned criteria will be applied in all further steps. To summarize, the reality-oriented research view will secure both relevance and rigor. The iterative approach, in which results are regularly challenged by practitioners and scientists, will enable managerial relevance and scientific standards.

1.4 Structure of the dissertation

This dissertation is split into seven parts. Chapter 1 describes the overarching goal of the dissertation to understand the role of marketing in the platform economy. Furthermore, the first chapter highlights the practical and theoretical relevance showing the importance of the topic. Also, the epistemological research background is described.

Chapter 2 describes the theoretical background of the dissertation and consists of the literature review. As the dissertation taps into two different research streams, digital platforms and branding, both streams are described, and the literature gap is identified.

Chapter 3 consists of an in-depth holistic single case study about the company Parcel Perform based in Singapore. The case study shows pressing issues companies face regarding marketing and digital platforms. The study also formulates the structure of the dissertation, dividing the thesis into three perspectives: the platform perspective, the supplier perspective and the customer perspective.

Chapter 4 explores the research question from the platform perspective. Two studies are conducted. First explorative interviews with platform experts are conducted and then 119 successful platforms are analysed. Options and strategies for digital platforms are derived and summarized in management frameworks.

Chapter 5 takes the supplier perspective into account. Qualitative interviews with companies having to deal with digital platforms are conducted. Four distinct strategies are derived from the interviews and discussed.

Chapter 6 deals with how consumers evaluate brands in the case of suppliers, producers and platforms. Four studies are conducted and the consumer preferences in an online purchasing scenario are tested.

Chapter 7 concludes and converges the results. It discusses the overarching contribution to all literature streams and discusses their practical relevance. Finally, limitations of the thesis and avenues for future studies are discussed. The following figure shows the outline of the dissertation.

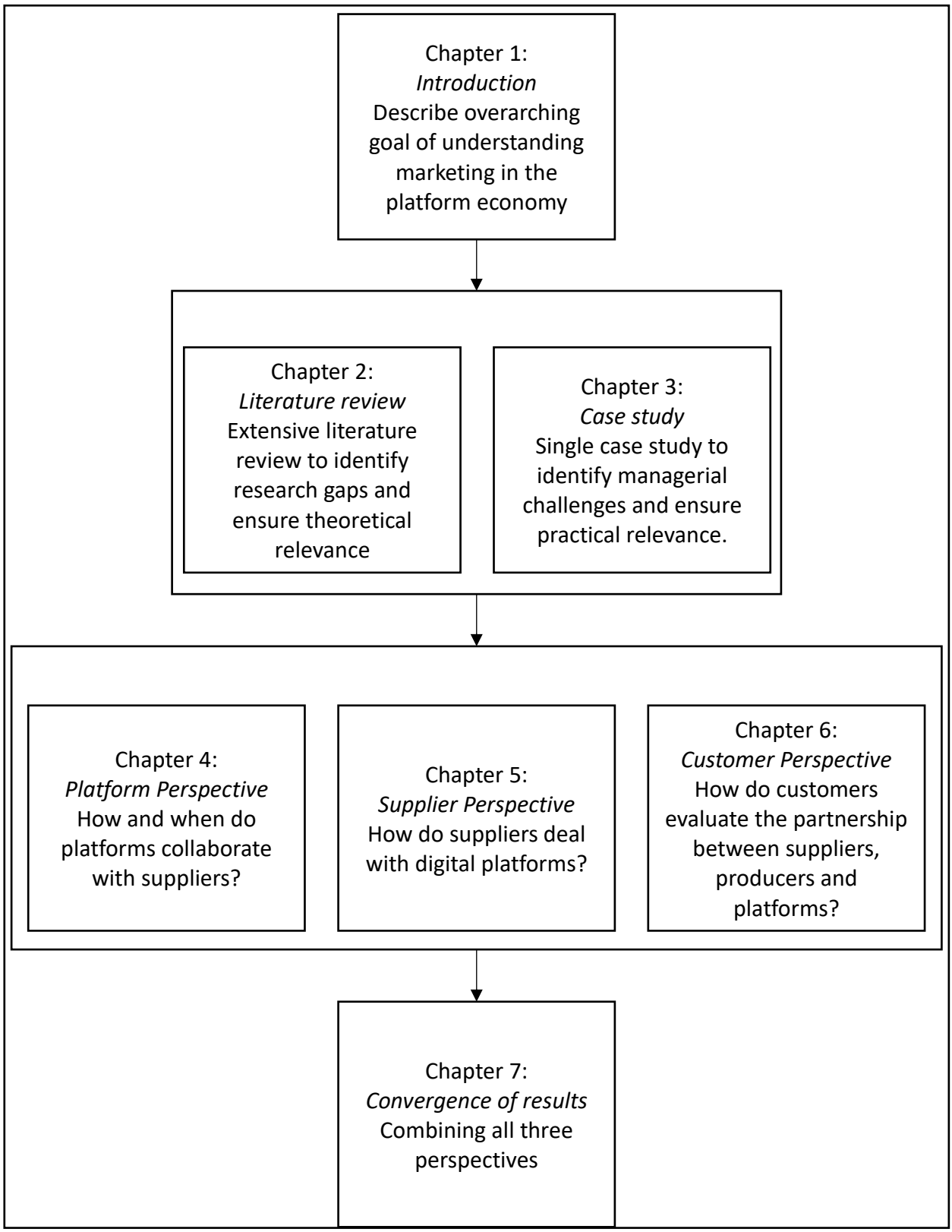


Figure 5: Outline of the dissertation

2. Conceptual research background and research methodology

A thorough literature review consisting both of academic journals and professional reports is conducted in order to gain a better understanding of the relevant constructs and relationships of the topic.

First (2.1) a common understanding of the term “digital platforms” will be set, different concepts will be examined, and the current literature will be reviewed. Second (2.2) the theoretical background of brand alliances is explained and reviewed. Finally (2.3) the overall research methodology will provide an outline of the dissertation.

2.1 Digital platforms

The business model of a company has been in focus of both academic and practitioner publications (Zott, Amit, & Massa, 2011). Furthermore, it can offer a novel lens to develop new insights into company strategy (Lanzolla & Markides, 2021). The business model can be defined by four questions, 1. What is the customer offering, 2. Who is your target segment, 3. How is revenue created and 4. How is the value proposition created (Gassmann, Frankenberger, & Csik, 2013). This dissertation will focus on a special type of business model, the market intermediary or two-sided-market business model.

As a number of companies and industries have been coordinated through digital platforms (Bogers et al., 2017; Evans & Gawer, 2016; Gawer, 2014), the topic has started to draw attention to academic research. It comes to no surprise that leading management journals have published work dealing with digital platforms, such as:

Journal of Consumer Research (Kim, Barasz, & John, 2019)
Journal of Product Innovation Management (Ozalp et al., 2018)
Organization Science (Rolland, Mathiassen, & Rai, 2018)
Strategic Management Journal (Khanagha, Ansari, Paroutis, & Oviedo, 2020)

Moreover, the French economist Jean Tirole received the Nobel Laureate in Economics for his work published on two-sided marketplaces in 2014 (Kato, 2016). While academics have been focusing on the technical infrastructure of platforms, the economics behind two-sided marketplaces, the strategic management of platforms or the evolution of platforms, a missing understanding of the roles of marketing on digital platforms exists.

This trend of the workforce reorganization around digital platforms is regarded as the platform economy (Wang & Zhao, 2017). Value creation, the type and location of work and employment are changed in the platform economy, for example enabling a global remote workforce. (Kenney & Zysman, 2019).

In the following the terminology of digital platforms will be examined and a common understanding set. Second the various digital platform strategies defined in literature will be highlighted. Third the various platform participants will be categorized. Fourth the term platform governance will be explained. Last the phenomenon of platform ecosystems will be determined.

2.1.1 Terminology of digital platforms

In general, the term digital platforms have received management scholars´ attention from different fields. Scholars have examined digital platforms from four large bodies of literature from different subject areas, with different understandings of the term: organizational platforms, product family platforms, platform ecosystems and market intermediary platforms (Thomas et al., 2014).

Research from product family platforms focuses on design aspects in the production of goods and services. Organizational platform research focuses on platforms used in organizational hierarchies. Platform ecosystems´ scholars examine the roles of platforms in organizational ecosystems. And finally market intermediary platform literature deals with multi-sided platform business models.

- *Product family platforms represent* a research stream which evolved from manufacturing science. Often these product family platforms are also referred to as “internal platforms” or “supply chain platforms” (Gawer, 2010). Academics from this research stream consider platforms from a technological perspective. Subsequently (product family) platforms are considered as a modular technological construct which exists of stable core and complementary components (E. Den Hartigh, Ortt, Van de Kaa, & Stolwijk, 2009). Research has shown that technological platforms have a competitive advantage in price, quality and performance (Hidding, Williams, & Sviokla, 2011). The modularity of the product family platforms enables a more agile approach. This agile approach secures product family platforms do adjust to customer needs at a more rapid pace. Companies using the platform family approach can leverage economics of scope. The technological core of a product can be standardized, and peripheral components of the platform can be adapted quickly (Baldwin & Jason Woodard, 2009; K. J. Boudreau & Lakhani, 2015; T. Eisenmann et al., 2011; Magnusson & Pasche, 2014). This approach permits producers to offer a large array of products. For example, Ford can offer their customers more that 3.8 million different types of automotive models. This literature stream is based on a resource-based view. Often discussed topics within the product family literature stream are product innovation, mass customization or architectural innovation (Simpson, 2004).

- Scholars who deal with *organizational platforms* define platforms as a company existing of an organizational structure with internal capabilities. Scholars consider this stream the most independent, as little cross referencing with other streams take place. In this stream all companies are considered as platforms with lower-order and higher-order organizational processes. Lower-order processes are standardized processes, such as routine work. In contrast, higher-order processes are strategic shifts which enable the adaption of lower-order processes. Ciborra (1996) argues, that a “platform organization” has the capabilities to adapt to changing business opportunities through sufficient higher-order processes. This approach describes the case how companies can adapt to disruptive

innovations (Ciborra, 1996). All studies conducted in this research field view a company as a platform able to allocate capabilities and resources and thus adapt to changing business environments.

- Platform scholars consider *Platform ecosystems* as an arrangement between multiple companies with a central hub (Jacobides et al., 2018). Academics mostly from innovation and technology research have contributed to this field. The foundations of this research stream were laid by Morris and Ferguson (1993) and Baldwin and Clark (2000). The theory is mostly based on value appropriation (Teece, 1986) or systems competition (Farrell, Monroe, & Saloner, 1998). Most studies conducted on platform ecosystems were case study based and had a focus on technology companies, such as IBM (Gawer & Henderson, 2007) or Linux (Garud, Jain, & Tuertscher, 2008).
-
- *Market intermediary platforms* are transaction-based business models, in which goods, services or information can be exchanged (Ceccagnoli, Forman, Huang, & Wu, 2018; Gawer, 2014). Digital Platforms enable exchanges between multiple parties by providing a digital infrastructure with a set of rules for the participating companies (Ondrus, Gannamaneni, & Lyytinen, 2015). Traditional, non-platform business models follow a linear value creation, which create additional value on every step of the value chain. This form of platforms follow a triangular value creation (Hagiu & Wright, 2015a). This means, platforms create value by facilitating the interaction between independent providers of goods or services (supply side) and users (demand side) (G. Parker et al., 2016). This business model has evolved in different industries (McIntyre & Srinivasan, 2017).

The focus of this thesis will be laid on market intermediary platforms. Product family platforms and platforms as organizations focus on technical and company internal aspects and are thus not ideal for marketing research. In the following chart, the four different literature streams are summarized.

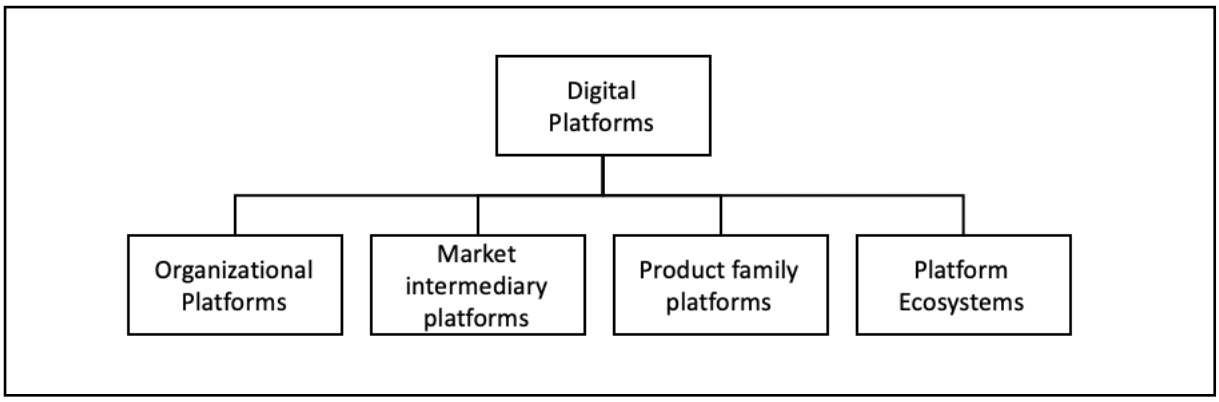


Figure 6: Literature streams on digital platforms

According to Broekhuizen et al. (2019)

2.1.2 Strategic decisions for multisided platforms

Hagiu (2014) describes four fundamental strategic decisions, which platforms have to consider: (1) platform participants, (2) platform pricing, (3) platform design and (4) platform governance.

Platform participants (1) refers to the number of sides (e. g. suppliers, 3rd party contributors, customers) which should be considered in a platform business model. Platform pricing (2) describes the monetarization strategy the platform follows. Platform design (3) describes the features which platforms offer their users, such as computer and mobile interfaces. Lastly platform governance (4) describes the regulation platforms make for their participants (as can be seen in figure 2).

Platform participants: Often the number of participants on a digital platform may be determined by the industry or considered obvious at first. For example, Ricardo, a Swiss second hand market platform, could identify the two sides of the platform: sellers and buyers, quickly. However, there are also other more complex examples where the number of participating parties is not that obvious. The professional social network LinkedIn, founded in 2003, currently runs a three-sided marketplace. They connect individual professionals with recruiters and advertisers. Also their business model relies on different income sources from the various participants, through paid advertising, premium accounts and recruiting solutions (Yoffie & Kind, 2012). Further examples of different number of participants can be seen in the mobile operating system. Android currently runs a three-sided marketplace with app users, mobile phone producers and app developers. Apple on the other hand is running a two-sided marketplace with app producers and app users (McCracken, 2013).

Hagiu (2014) describes the disadvantages and advantages of adding further sides to a multi-sided marketplace. Adding more participating sides can lead to better cross-network effects, more diverse income sources (such as in the case of LinkedIn) and more scalability potential. However, there are also many disadvantages of adding further sides to a multi-sided platform. First, adding further sides can lead to a complexity which can

be hard to manage. Second on multi- sided- platforms with too many participants, fulfilling the needs of all participants can lead to a decrease in innovation potential. And lastly, especially at the beginning of a multi-sided platform, the focus on a single group has shown to be a good starting point for the "chicken and egg" problem. The author will further elaborate on the different types of platform participants in chapter 2.1.3.

Pricing: As digital platforms serve several different types of customers the revenue sources can differ. Practice has shown that digital platforms often offer a service for free or at a discounted price for one side of the platform and then make their profit on a different side (Schmalensee, 2011). An overview of examples from different industries can be seen in the table below.

Table 1: Pricing trade-offs on digital platforms

Multisided platforms often offer discounted or free services to one side of the platform and generate profit on the other side.

Multisided Platform	Loss-Leader Side	Profit-Making Side
Advertising-supported media (e.g. Google)	Users	Advertisers
Alibaba.com, eBay	Buyers	Sellers
Payment systems (e.g. VISA)	Users	Merchants
Video game consoles	Users	Game developers
Operating systems (e.g. Windows)	App developers	Users
Ticketmaster	Venues	Users
Fandango	Movie theaters	Users

Source: Hagui (2014)

Different pricing strategies of digital platforms have been discussed in strategy and economic journals (Armstrong, 2006; Caillaud & Jullien, 2006; J.-C. Rochet & Tirole, 2003; Schmalensee, 2011). Hagiu (2014) considers three pricing strategies as the most relevant for practitioners: Pricing based on price-sensitivity, pricing based on the benefiting of transaction and pricing based on value.

Pricing based on price-sensitivity applies to all products and services and is not specific for platforms. This price principle evaluates the bargaining power of each participant on the platform and the pricing is evaluated independently.

Pricing based on the benefiting of transaction applies, when there is no direct monetary transaction between participants. Hence participants who profit more from the presence of other participants should be charged. An example is a business conference, where the organizers often monetize from the attendees and not the speakers.

Pricing based on value is the case when a specific side on a platform profits considerably more than the other side. An example here is OpenTable, where participating restaurants profit from diners paying for a full meal without discount, however, have to pay a fee for the online booking.

The third strategic decision for digital platforms is the *design*. In general, digital platforms have evolved in multiple industries with various features, which in summary is considered as the design. The main features of digital platforms are reduction of transaction costs, reduction of search costs and reduction of development costs. The integration of these three features can be reduced to a simple make or buy decision: Features should be included, when the building costs less than the potential value created for each side. However, there often is also a trade-off between multiple participants. Sometimes adding of a feature can lead to an advantage for one side of a platform and a disadvantage for another side. For example more advertisements on the social media platform Facebook would be beneficial for the advertisers, but users of the platform may be distracted and annoyed by the extra adverts (Hagiu & Jullien, 2011).

The fourth and last strategic decision digital platforms have to make is the platform governance. The platform governance is considered a specific set of rules for each participating group. For a platform to work efficiently and sustainable key rules/ governances are crucial. In general, there are two distinctly different platform governance types:

- Platform authority: What are independent groups on digital platforms allowed to do?
- Platform access: Who is able to join digital platforms?

Often multiple platforms can exist in the same industry with a different platform governance. An example is the case of Match.com and eHarmony in the US online dating service market. These two major players were connecting singles with different platform governance models. Match.com has a very "loose" governance, allowing participants to sign up quickly (easy access) and interact with each other freely (loose authority). On the other hand, eHarmony has a different approach. The signup process takes longer and is more monitored by eHarmony (strict access). Some participants are even restricted in their access to the platform. The website searches for matches and participants cannot contact other participants freely. Once signed up, participants are also limited in the actions and communication with others (strict authority) (Levy, 2012).

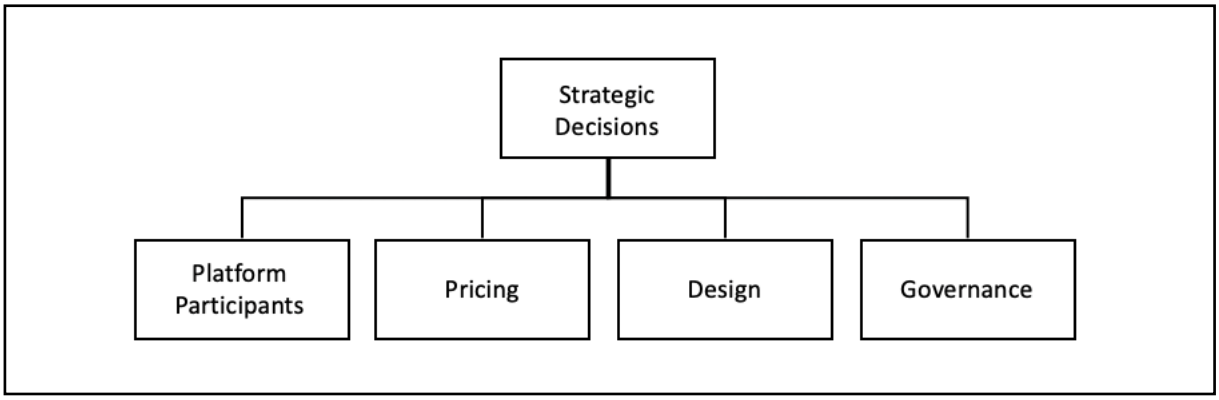


Figure 7: Digital platform strategy decisions

According to Hagiu (2014)

2.1.3 Platform participants

After Hagui (2014) identified the four strategic relevant platform decisions, Broekhuizen et. al (2019) identified five platform participants to be considered by digital platforms: Customer, service provider, supplier, category and channel openness (figure 3*)*.

Supplier openness describes which particular suppliers interact on platforms. Customer openness is the possibility for new customers to join a specific platform. Complementary service provider openness is the participation possibilities for external third-party providers to be able to offer complementary products. Category openness refers to the number of categories offered by a certain platform. Lastly, channel openness refers to the openness of communication or distribution channel, such as the offering of online and offline channels.

Customer openness refers to the governance of customers participating on digital platforms. Platforms can either restrict or target specific customer groups on certain criteria or implicitly favour some customer groups. Platforms face the decision on whether or not they should try to reach as many customer groups as possible or focus on a niche market. The mass-market approach has the advantage of better scalability and network effects however the solution can end up in a “one-size-fits-all” solution which leaves out essential customer needs. Platforms often begin with “beach-head” markets and a niche customer group to solve the chicken and egg problem. Customers can also be integrated to gain creativity, innovation and knowledge. For example, the online marketplace for creative t-shirts Threadless lets their customers vote on specific designs and thus creates value for customers by customers (Brabham, 2010). Whenever customers have rather homogenous needs and the product is commoditized, the mass-market approach makes sense. However, when customers value quality and individual products a niche market approach can better address these needs. Customers are also concerned about privacy issues when participating on digital platforms. The willingness to share information and thus create value can differ based on the type of information shared to / on the platform, depending on customer segment, market or data shared.

All participants on a platform, which do not directly add value to the core service are considered as *third party* or *service provider* participants. The *openness* and governance of these participants is the extent to which third party participants can join the platform and if they can join the platform which roles they can take. This group is sometimes defined as “complementary service providers” or “sponsors” on a platform. Examples for such complementary service providers are payment solutions, financing options, delivery services or insurances (Zhu & Liu, 2018).

The extent of which suppliers may join a platform combined with possibilities suppliers have to differentiate their product on platforms is regarded as the *supplier openness* (Ondrus et al., 2015). Some platforms curate / restrict which suppliers may join their platform in order to ensure sufficient quality. However other platforms want to ensure as many suppliers as possible to join, in order to utilize network effects. Whenever platforms transfer some part of their control over the platform to the supplier, this is called “transfer rights”. One example of transfer rights is when a supplier is able to directly contact certain customers.

The offering of products on a digital platform is considered as the *category openness*. The category openness can be horizontal or vertical. Platforms can decide to offer more products of a specific category (depth / vertical) or extend the number of categories (width / vertical). There is no clear understanding if “tight is right” (Iyengar & Lepper, 2000) or “the more the better” (Oppewal & Koelemeijer, 2005), as it strongly depends on specific customer preference (Mathmann, Chylinski, de Ruyter, & Higgins, 2017). With an increased category openness customers may have an advantage in convenience as they can shop multiple product categories in one shop (Messinger & Narasimhan, 1997). However, increasing the number of categories decreases the perceived quality for customers (Chernev & Hamilton, 2009).

The degree of openness in the communication and distribution of a platform is considered as *channel openness*. Platforms may also decide through which channels they distribute their products, such as the combination of digital and physical distribution channels (Herhausen, Binder, Schoegel, & Herrmann, 2015). The number of transaction can be increased by adding a physical distribution channel, as thus new

customer groups can be reached (Avery, Steenburgh, Deighton, & Caravella, 2012) and the retention is higher (Pauwels & Neslin, 2015). Opening further channels has the disadvantage that it leads to higher operational costs and a higher return rate of products (Pauwels & Neslin, 2015).

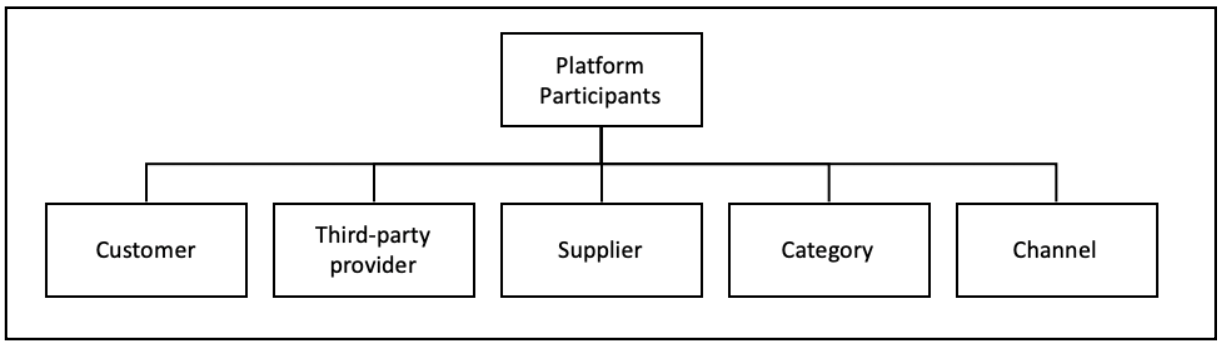


Figure 8: Platform participants

According to Broekhuizen et. al (2019)

2.1.4 Platform governance

Previous research has examined the platform openness or governance, which is "the extent that [the platform] places fewer restrictions on participation, development, or use across its distinct roles, whether for developer or end user" (T. R. Eisenmann et al., 2009). Boudreau (2010) describes two types of openness, either access openness or authority openness. Access openness describes the possibility for external stakeholders to join the platform and authority openness describes the actions and restrictions participating stakeholders have, e. g. to what extent platforms can brand their products on platforms.

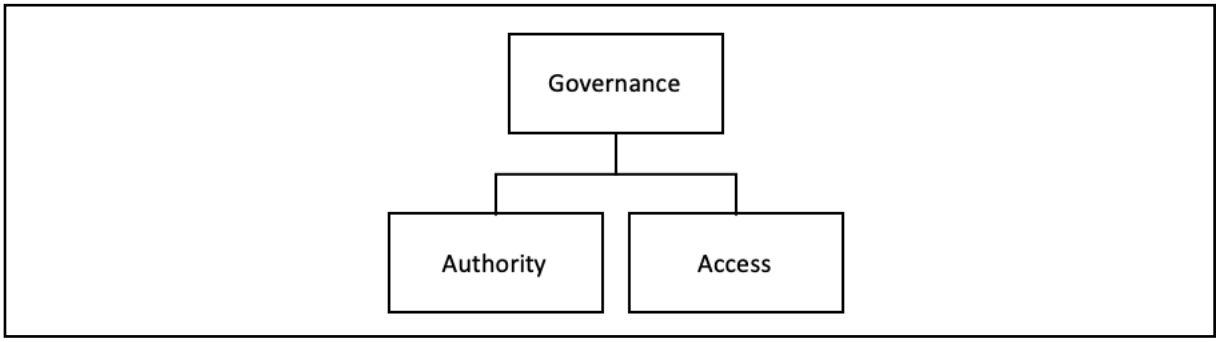


Figure 9: Governance on platforms

According to Boudreau (2010)

An overview of the literature can be seen in figure 10.

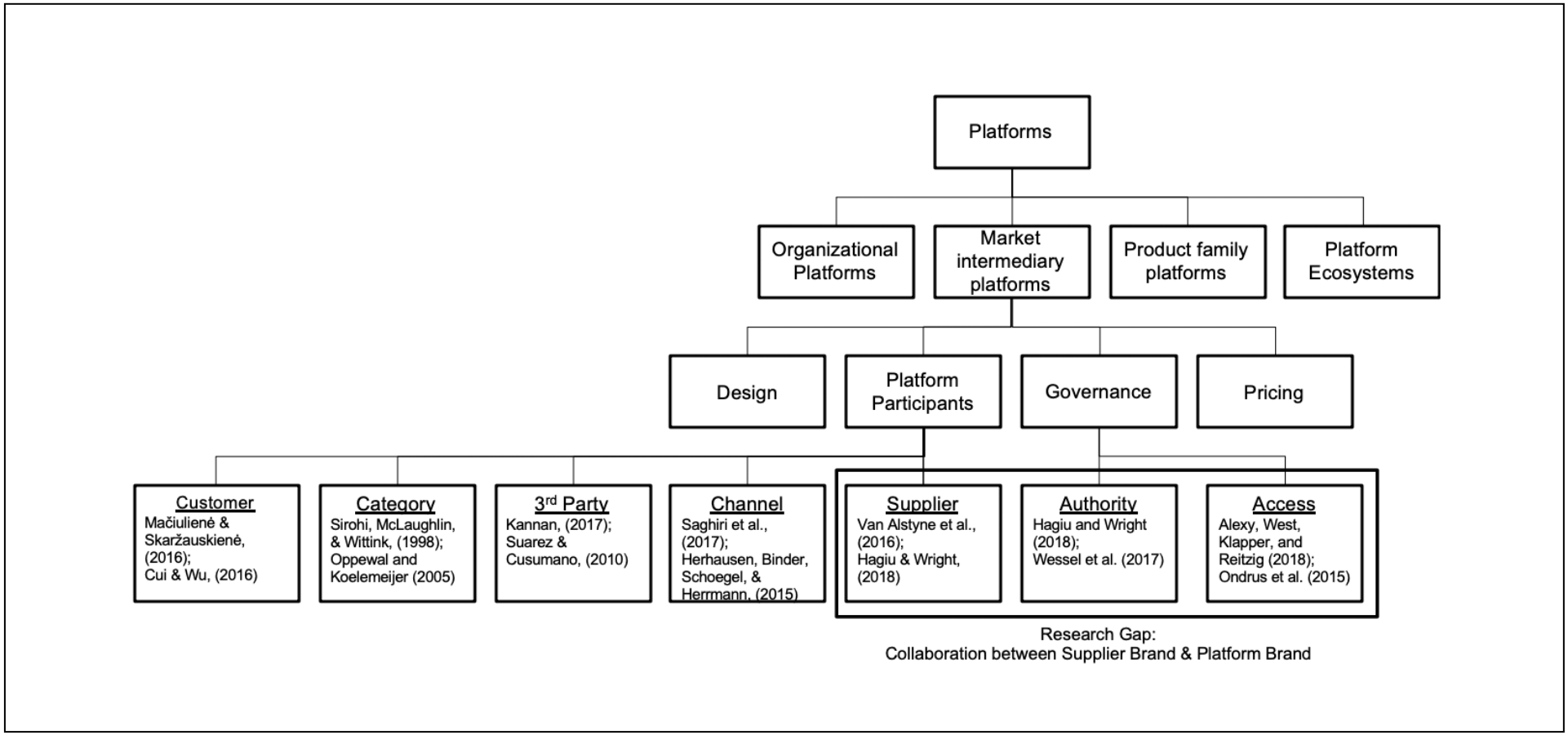


Figure 10: Overview of the literature

2.2 Brand alliances

As the research proposal deals with digital platforms and branding, the current status of research on branding in the conventional business world will be summarized. First brand alliances will be examined from a marketing management perspective and then existing research on the consumer evaluation of brand alliances.

2.2.1 Brand alliances: Marketing management perspective

Marketing management is defined as "the art and science of choosing target markets and getting, keeping and growing customers through creating, delivering, and communicating superior customer value" (Kotler & Keller, 2008). As the definition suggests, marketing management has both subjective parts (art) and objective aspects (science). The successful combination of both can lead to positive interactions with existing customers and the attraction of new customers. This is only possible through creating superior customer value. One way how customer value can be created is through a brand (Ponder & Barnes, 2004).

The American Marketing Association (AMA) defines a brand as "a name, term, design, symbol, or any other feature that identifies one seller`s goods or services as distinct from those other sellers" (Kohli & Jaworski, 1990). Thus a brand can be used to create customer value by differentiating goods or services from competition. Marketing managers have realized that collaborating with other brands may lead to positive effects for both participating brands, leading to so called "brand alliances" (Simonin & Ruth, 1998).

Whenever two different brands decide to present their products or services together, this approach is referred to as a brand alliance (Newmeyer, Venkatesh, Ruth, & Chatterjee, 2018). These alliances can have different shapes and forms, ranging over a co-location of stores (Coffee Shop Starbucks in Barnes & Noble Bookstore) to a co-development of products (Puma & Fendy clothing design). The strategic objectives of the participating brands may differ (Yan & Cao, 2017) but research has shown, that partnering with other

brands can lead to brand spill-over (Simonin & Ruth, 1998). These spill-over effects can be negative, e. g. when a perceived low-quality company collaborates with a more reputable company (Yan & Cao, 2017). In the following, the different types of brand alliances will be elaborated based on the terminology of Newmeyer et al (2018).

Co-development is referred to the scenario, when two or more brands decide to co-develop a product or service. In this case both companies are highly integrated. An example is the collaboration between the clothing manufacturer H&M and luxury shoe producer Jimmy Choo for a joint clothing line. Researchers have proven the effects in various case studies. The collaboration of complementing brands such as the diet food producer Slim-Fast and the chocolate company Godiva can lead to a positive influence on product choice and preference (Park, Jun, & Shocker, 2006).

Whenever two or more brands have a joint offering but a separate development, the alliance is referred to as *ingredient branding* (Norris, 1992). Also in this case both participating brands also have the possibility to sell their products without the partnering brand. This type of brand alliance leads to a high physical / functional integration of both products. Prominent examples are the North Face jackets with Gore-Tex fabric and Daim chocolate lenses in McDonalds´ ice-creams. Researchers have examined the positive effects of ingredient branding in a brand extension context with case studies from a laundry detergent (Tide) with a branded perfume (Downy fabric softener) (Desai & Keller, 2003).

Component branding is similar to ingredient branding and co-development, as it forces consumers to purchase products together. In contrast to ingredient branding every product of a participating brand is well distinguishable. Consumers, in the case of a dysfunctional part, can repair the product by replacing the defected part by an identifiable partner (Venkatesh & Mahajan, 2008). Examples are Bosch lights on Mercedes Benz cars or Rolls-Royce aeroengines in Boeing airplanes. Research indicated that original equipment manufacturers can use supplying brands to differentiate their product, when the supplier has customized the offering for the producer (Ghosh & John, 2009).

In the case of *brand bundling* the participating brands are sometimes complementary and most of the time at least functionally compatible. Multiple products are sold in the same package. Within the offering there is a forced sales tie-in (Stremersch & Tellis, 2002). In contrast to the previously mentioned alliance strategies, all participating brands can be purchased individually. Case studies have examined the effect of bundling multiple brands in an offering for digital cameras and printers (Voss & Gammoh, 2004). Also hotel and cruise ship tourist packages were examined (Monga & Lau-Gesk, 2007). Prominent examples are Gordons Gin offered in a bundle with Fever-Tree tonic water or a Dell computer bundled with a Canon printer.

As the name of the brand alliance strategy *co-promotion* already suggests, the strategy focusses on *promoting* all participating brands. Companies focus their resources to co-communicate each participating brand. In contrast to brand bundling, there is no forced sales tie-in. All participating products / brands have a stand-alone value and can be purchased individually. Research has shown that coupons from different stores can lead to higher sales and profits than traditional coupons from only one store (Dhar & Raju, 2008). Consumers prefer coupons as a bundle from different brands or producers. Further studies have shown the importance of long-term multi-year scheduling as a key driver of success in the co-promotion efficiency in media planning (Byun, Song, & Kim, 2017). Co-promotion is more successful in long term brand alliances.

The least integrated strategy - *co-location* - describes the scenario when two or more brands place their brands at similar locations to increase variety and decrease search costs for customers (Wernerfelt, 2008). In contrast to co-promotion, there is no monetary advantage in purchasing the partnering brands (Iyer & Pazgal, 2002). Research has shown that when firms cluster their locations they can attract more customer, however, they increase their competition (Dudey, 1990), e. g. often Aldi stores are deliberately located next to Edeka stores.

An overview of the six different brand alliance strategies can be seen in the figure below. The degree of integration and the characteristics of the brand alliances are also shown in the figure.

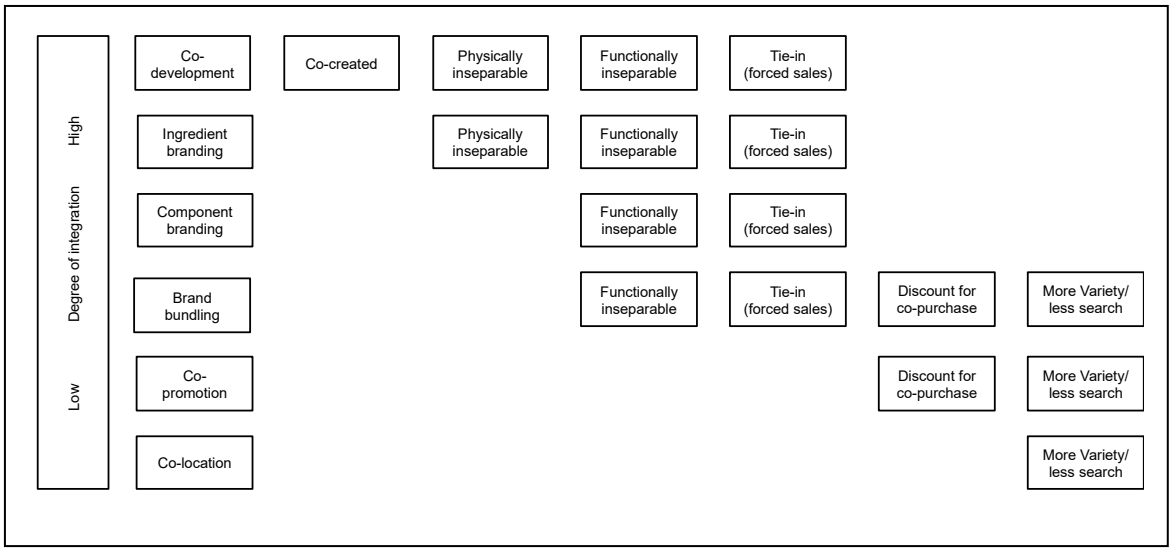


Figure 11: Brand alliances

Based on Newmeyer et al. 2018

2.2.2 Brand alliances: Customer perspective

After reviewing the literature on brand alliances from a marketing management perspective, the literature of the effects of brand alliances from a customer's point of view will be reviewed as a next step.

The purpose of a brand is to signal to the consumer the expected quality of a product. The quality signalled can be both subjective and objective (Rao, Qu, & Ruekert, 1999). Subsequently consumers choose brands because they signal the quality level of a product. If multiple brands present themselves together they have the possibility to jointly signal an even more increased quality towards the customer (Wernerfelt, 1988). Different approaches have been used to understand the mechanisms behind brand alliances (Gammoh, Voss, & Chakraborty, 2006). The two major streams are on the *signaling theory* (Ruekert & Rao, 1994) and the theory of *attitude formation* (Hillyer & Tikoo, 1995).

The *signaling theory* includes the assumption that sellers and buyers have different information regarding a specific product. This information can vary in depth and type. Consequently the seller of a product has or may have more information about the quality product than the byer (Ruekert & Rao, 1994). This asymmetry of information can lead to problems especially when the quality of products cannot be checked before the purchase but becomes obvious when in use (Nelson, 1970). This does not occur in so called search products, where the quality of a product can be seen before purchase (Akerlof, 1978). Often parts of the marketing mix are used to signal certain quality aspects of a product. For example, advertising costs are considered as a quality sign for products (Kirmani, 1990). Also the name of a brand can be a signal for quality (Montgomery & Wernerfelt, 1992). There are two main mechanisms of the signalling theory, the risk reduction hypothesis and the bonding hypothesis (Gammoh et al., 2006). The risk reduction hypothesis states that consumers who purchase a specific branded product do so in order to reduce the risk of receiving a low quality product (Montgomery & Wernerfelt, 1992). Thus, the main purpose of a brand is to signal the consumer that the quality of a product is consistently high. Subsequently the consumer can minimize

his risk by purchasing a brand, as the quality is considered consistently high. The bonding hypothesis on the other hand suggests, that the quality of a product bonds to a brand. Should for example a low quality product have a brand with high quality claim, the consumer will punish such brands with negative word of mouth or not purchasing the product again (Nelson, 1970).

In a brand alliance context, previous studies have demonstrated that when multiple brands collaborate, certain cues and attributes of these brands can get transferred to another brand and benefit the alliance (Ruekert & Rao, 1994). Therefore, the signaling theory suggests that multiple brands can signal a certain offering in a mutual beneficial way. In the following the moderating effect of brand familiarity by Simonin & Ruth (1998) is shown (see Fig. 12). This intellectual framework is widely adopted in research. It shows the pre-attitude and post-attitude towards two different brands, the product fit and the brand fit.

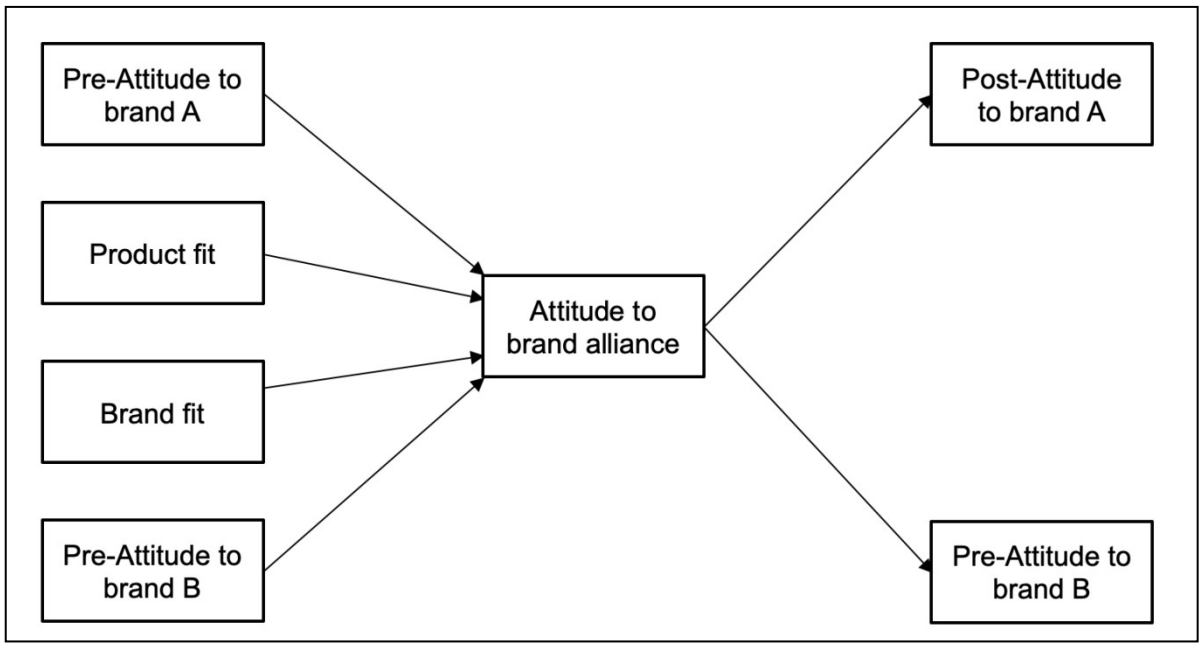


Figure 12: Brand alliances effects

Based on Simonin & Ruth (1998)

The study conducted by Simonin & Ruth (1998) did show that brand alliances effect the perception of the partnering brands. Also brands which have multiple other partnerships (such as MasterCard) can profit from multiple alliances. There can also be an

unbalanced spill-over between two brands, where one brand profits more than the other. For example, it was shown, that customers evaluate less-known brands higher should these collaborate with well-known brands. Should two very established brands collaborate, they both profit equally from the alliance. In some cases, the major contribution to a positive evaluation of a brand alliance may come more from one brand than the other. And lastly Simonin and Ruth (1998) could show that the consumer evaluation of a brand before the alliance does affect the brand alliance in a significant way. If consumers have a positive attitude toward one brand, the consumer is more likely to have a more positive attitude towards the other brand (James, 2005). Also, if a consumer has a negative attitude toward a particular brand, the consumer is more likely to have a more negative attitude towards the other brand of the alliance (Votolato & Rao Unnava, 2006).

2.3. Overarching integrated research process

To answer the overarching research question – how to manage brands in the platform economy - multiple different research methods were used. Per definition a digital platform has two inter-pendant companies creating value for the customer (G. Parker et al., 2016). Thus, both the marketing management perspective of the platform provider and the platform supplier must be considered. In order to understand the entire picture of branding in the platform economy, the customers´ perspective has also to be considered.

As different perspectives were taken into account (supplier, platform, customer), the author proposed to adapt different research methods for different perspectives. In the following the author will explain why different research methods were used for which of the different perspectives.

In order to obtain an overview which of the overarching topics are relevant regarding branding and digital platforms, a single in-depth case study was conducted. The method of a single in-depth case study was chosen in the beginning, as case studies are considered as a method which can provide a "nuanced, empirically rich, holistic account of specific phenomena" (Willis, 2014). In a first step, the author wanted to provide an overview of all relevant topics in the collaboration between suppliers and platforms. The case study was based on a mid-stage start-up (ParcelPerform). Deliberately an explorative case study of a mid-stage company was chosen at the beginning to obtain "interlinked concepts that together provide a comprehensive understanding of a phenomenon or phenomena" (Jabareen, 2009). The goal of the case study in the overarching research process is thus to obtain a holistic overview of how brands interact in the platform economy.

Based on the insights of the single case, the author next takes the perspective of platform brand management in general. As the concept of digital platforms is a new phenomenon the author started with a quantitative study to identify a trade-off proposed in information research science (access vs. authority). The quantitative study was chosen

next to have a fundament to build the explorative interviews on. Based on the quantitative study, the author derived qualitative interview questions to understand how platforms can leverage supplier brands (research question 1). The advantage of quantitative research is to obtain a deeper understanding of a certain topic as respondents, in their own words, share information (Roulston & Choi, 2018)

After taking the platform perspective into account, next the author takes the supplier point of view. In order to answer the research question 2, the author chose to conduct qualitative interviews with platform suppliers. As the research question is more explorative, qualitative interviews were considered the best suited research method.

To complete the holistic picture of the independence between customers, suppliers and platform, finally the customer perspective is taken. Derived from the results from the platform and supplier perspective, the author created a consumer experiment. More specifically a choice based conjoin analysis was chosen as research method. The advantage of the conjoint analysis is that preferences by different individuals can be measured. The conjoint analysis was chosen, as it provides a relative preference of consumers between platform and supplier brands (research question 3).

All in all, the overarching research process starts with a case study to obtain a holistic overview, then is narrowed by qualitative interviews with marketing managers of both supplier and platform brands and finally finished with an experiment of a specific topic (brand preference) obtained from the qualitative interviews.

3. Study 1: In-depth case analysis

In order to identify relevant aspects of platform markets, a single in-depth case study was conducted. The following chapter describes the methodological approach: Case selection, case descriptions, findings and the implications.

3.1 Methodological approach

Case selection

To obtain an overview, of which topics are relevant for digital platforms and their suppliers, a single in-depth case study with a holistic design was conducted (Yin 2014, p.50). The Singaporean start-up Parcel Perform was chosen as a critical case for a study to identify the relevant strategic aspects for digital platforms. The reason for this particular analysis was to help with the decision to collaborate with other companies in order to build a digital platform (Yin, 2013a).

Case studies are favorably used when little prior insight is available and the research object is strongly influenced by human behavior (Schögel & Tomzcak, 2009 p. 83). This is in this study the case, as the concept of digital platforms is considered a new phenomenon. Other case studies have been published on the topic of digital platforms (e.g. (Erik den Hartigh, Ortt, van de Kaa, & Stolwijk, 2016)) and indicated that the decision-making process is strongly influenced by human interaction. Furthermore Schögel & Tomzcak (2009) point out that the high practical relevance and degree of innovation are the central advantages of case studies.

The start-up Parcel Perform qualifies as a critical case as it has a unique value proposition and it is the first mover in a highly digital market. Building a digital platform is a complex highly strategic process and this case describes the path of developments from the initial idea to the launch of the platform. Parcel Perform has won multiple awards, including the “Worlds Post & Parcel Awards” in 2019. It has taken part in the “eFounders Fellowship Programme” from Alibaba. Parcel Perform has successfully raised their series A funding (Parcel Perform, 2019) and shown a track record of growth.

The logistics industry is considered to be in the early stages of digitalization, where multiple processes still remain manual. Parcel Perform has successfully digitalized part of the industry and is planning to build a digital platform around parcel shipping.

Case studies should answer the “why” and “how” a company has become successful (Yin, 2014, p.14). The case study on parcel perform answers how Parcel Perform managed to build a successful start-up in an industry with strong incumbent players and why certain development steps / strategic decisions were made. The study also analyzes the context factors which determine the step by step building of a digital platform.

The overarching goal of the Parcel Perform case study is to understand how a digital platform can be built and when suppliers should be involved. The study is both explanatory and descriptive. Furthermore, the study also identifies how and why Parcel Perform integrated certain technologies and how consumers adapted.

Multiple variables were taken into account in order to meet the four criteria of case studies: Construct validity, internal validity, external validity and reliability (Gibbert & Ruigrok, 2010, p.712; Gibbert, Ruigrok, & Wicki, 2008, p. 1466). Different initiatives regarding digital platforms were examined to ensure construct validity. Furthermore, Dana von der Heide, the co-founder of Parcel Perform did review the case and provided feedback. (Yin, 2013a) (Gibbert & Ruigrok, 2010)

Different data sources were triangulated in order to view the case from multiple perspectives (Yin, 2014, pp. 155 – 163). The founding process was described as a chain of events to explain causal relationships that lead to the platform business model, which follows the logic model to ensure internal validity (Yin, 2014, p.121). External validity, which describes how generalizable the case is, was ensured through anchoring the case in existing theoretical literature. Finally, in order to grant the reliability of the case, all documents were archived in order to create transparency. (Gibbert & Ruigrok, 2010)

Data collection

Multiple sources of data were combined to enable data triangulation. Subsequently different perspectives of building a digital platform could be involved. The data collected were obtained on two on-site visits, interviews with the founders of Parcel Perform, interviews with their clients and an interview with the head of communication of Parcel Perform. Furthermore, multiple presentations and white paper reports about the logistics industry were taken into accounts. The interviews were conducted to understand the founding process of Parcel Perform and their journey from idea to platform. Also, the strategic decisions for the development of the platform were discussed with the founders.

Case analysis

The coding was achieved through an inductive approach. This enables the scientist to capture "the essence of the data" (Miles et al., 2014, p.81): Multiple data sources are collected and iteratively challenged with the existing literature (Eisenhardt, 1989, p.546). The implications and interpretation of the case combines existing literature with insights from the case (Eisenhardt, 1989; Ridder, Miles, Michael Huberman, & Saldaña, 2014).

The coding was split into first-cycle open coding and causation coding (Miles et al., 2014, p.79). Causation coding explains why a certain outcome was created. The analysis especially focused on the collaboration process between Parcel Perform and their suppliers. Furthermore, the overarching goal was for both platform company and their supplier companies to understand how, why and where digital platforms can evolve and how a successful dyadic relationship can be achieved.

3.2 Case description

3.2.1 Introduction

"The last 5 years have been a phase of awakening for the post and parcel industry, with many players starting their innovation and digitization journey to meet the new demands of the e-commerce consumer who want faster, more intuitive, more convenient delivery options."
(Dana, Co-Founder, Parcel Perform)

In June 2016, two German expats in Singapore, Dana and Arne handed over their DHL badges at the Singaporean office. It was their last day at the logistics giant. They had both been sent to Singapore by DHL to develop the Asian business. Things were going very well at DHL, however, despite the benefits of secure positions in a large corporate company, both decided to take the risks of starting their own company. They had quit their jobs and were determined to challenge an industry which they believed was ready for change. Both had met in 2014 at DHL, had been working side by side and during that time got to know the Asian logistics market from inside out. Now in 2016 they set to start their own company.

At DHL in Singapore it was their job to promote the sales of logistics solutions. This subsequently meant that they spent a considerable amount of time with potential clients: companies which needed a logistics solution to ship products over the globe. One large and growing client group was e-commerce companies. E-commerce companies were rapidly growing globally especially in Asia. In multiple meetings with their customers they realized the pattern that many of their potential clients were complaining that they were losing their customers from their website as soon as they had ordered a product. Customers were leaving the e-commerce websites in order to track their shipments at logistic providers such as DHL or UPS. Furthermore, the e-commerce companies were complaining that they had no control over the parcel / customer journey after shipping. The logistic providers were sending updates on the status of the packages to the customers and not to the e-commerce companies. Dana and Arne saw this as an opportunity and set out to found a start-up which should later become Parcel Perform.

3.2.2 Data-driven business models

Since the famous Silicon Valley entrepreneur and investor Marc Adreessen penned the viral article “Why Software is Eating the World”, many companies are jumping on the bandwagon and are claiming that “every company needs to become a software company” (Andreessen, 2011). Regardless of the industry, incumbents are trying to reimagine their business model out of fear to be made redundant by data-driven start-ups or competitors (Hess, Matt, Benlian, & Wiesböck, 2019). However, the paradigm-shift from a non-technological company to a technological company has proven to be hard to execute (Bounfour, 2016).

While this transformation process is a huge undertaking for traditional companies, start-ups have been quicker in transforming traditional non-software industries into software industries (Rissanen & Sainio, 2016). The pace of change has increased and it comes to no surprise that 52% of the Fortune 500 companies since 2000 have gone bankrupt or been acquired (DXC Technology, 2017). The logistics industry alone is a trillion-dollar industry which seems to be stuck in the digital stone age (Dana von der Heide, personal communication, 2019). Customer expectations have adapted to the digital era, yet the industry at large applies a generally low degree of digitalization (Joerss, Neuhaus, & Schroder, 2016). Furthermore, the market is highly fragmented and incumbents often hesitate to cannibalize their existing business due to conflicting interests of different stakeholders (PWC, 2016). Non digital, inefficient, fragmented markets spark opportunity for start-ups. In the logistic industry there have been different approaches from start-ups to disrupt the industry. One such start-up is Parcel Perform from Singapore. Dana von der Heide and Arne Jeroschewski founded the software company Parcel Perform in 2016 in Singapore with the vision to become the global logistics software operating system. Since then, they have integrated over 600 logistics providers globally, have accrued millions of visits on their B2C parcel tracking website “parcel monitor” and served thousands of global clients using their B2B Parcel Perform software to enhance customer experience for clients. At the end of 2019, apart from their Headquarter in Singapore (with over 20+ employees) they have a development team in Vietnam (20+ employees) and recently have opened an office in Berlin for the expansion

to Europe. Parcel Performs` business model is based around their logistics platform which accumulates the fragmented parcel data from different logistic providers. Parcel Perform is able to track individual parcels globally and standardize its tracking data- regardless of the name or number of logistic carriers used. Their value proposition is to create transparency in the logistics sector and thus add value for consumers, companies, and logistic providers alike.

Exhibit 1: The founder profiles

Dana von der Heide



Dana studied Psychology, Communications and International Politics at the Freie University Berlin. After her studies she joined DHL for the international trainee program and set to join the corporate development team as a corporate strategy expert. In 2014 she joined the Singapore office of DHL as a Senior Business Development Manager, where her focus was on the regional strategy and selected market entry approaches. At these various strategic positions at DHL she gained valuable insights which lead to a competitive edge and helped found Parcel Perform.

Dr. Arne Jeroschewski



Arne graduated from the WHU – Otto Beisheim School of Management and joined McKinsey. During his time as a consultant he worked in the telecoms, media and high-tech industries and received a PhD. In 2012 he co-founded Zalora, an Asian e-commerce start-up and later transferred to the Singapore Post and finally to DHL as VP Business Development Asia Pacific, where he was responsible for business development activities. His consulting background, start-up insights gained at Zalora and work experience in the logistics industry made him an expert in the logistics industry.

3.2.3 The founding story

Immediately after handing in their resignation at DHL in 2016, Dana and Arne sat together and planned how to create a novel data-driven business model in the logistics

industry. Throughout their meetings with e-commerce companies they had identified a problem which companies perceived as relevant: E-commerce companies did not have control over the parcel-package / customer journey after a purchase was completed. Information about the status of a parcel (e.g. “parcel in customs”) was sent to the customers from the logistics carriers and could not be personalized by the e-commerce companies. E-commerce companies wanted to brand every part of the customer journey and were missing a solution which let them send branded updates about the shipping status of a parcel to the customer. Also, if customers want to track their parcel, they had to visit the specific logistic carrier website (e.g. DHL package from dhl.com, UPS package from ups.com etc.). As e-commerce companies mostly had different carriers, this often confused the end-customer. Often packages from the same company were provided by different carriers and customers were disturbed as they did not know where to track their packages. This made Arne and Dana come up with a second idea. They believed the market was lacking a search engine for parcel packages regardless of the carrier (logistics providers such as DHL or UPS).

Within a few days they initialized a “smoke test” to see whether customers were potentially interested in such a carrier independent parcel search engine or not. They set up the website “mytrackevent.com”, which claimed to be able to track the status of any package around the globe. The website had no function whatsoever, as Arne and Dana wanted to test the need without having to build the product. Their instincts proved them right as the demand for the parcel tracking search engine skyrocketed. The Ex-DHL employees had found two potential white-spots:

1. E-commerce companies wanted to be able to brand shipment information of their parcels sent and
2. Customers, who had ordered a package online, wanted a search engine to track their shipment.

At the time whenever an e-commerce company shipped a product to a customer, the e-commerce company received a tracking number from the carrier. This tracking number then would be shared with the receiver of the package in order to help the customer track their shipment. The status of a package is always available with the tracking number. Furthermore logistic carriers had opened their parcel tracking information via

application programming interfaces (API). These APIs make it possible to automatically access and collect information from the carriers on where a shipment is located. Dana and Arne deducted that it was technically possible to integrate and standardize the data via APIs. Now they needed a software engineer to help them build the platform. The founders set out to look for a software engineer and came across Khang Nguyen from Vietnam. Khang could impress the founders both personally and professionally and the start-up had its missing technical expert. Parcel Perform was born. After bootstrapping the first year, the young start-up received an Angel Investment.

In 2019 the team of Parcel Perform had significantly grown. They received a Series A funding and Khang now CTO, led a team of 20 software engineers in Ho Chi Minh, Dana and Arne led their sales and strategy team from Singapore with 20 employees. In June 2019 Parcel Perform expanded to Berlin and hired Matthew Mennecke, an experienced Software-as-a-Service salesman, to drive business development in the DACH region. Currently Parcel Perform offers a portfolio of products based on the standardized logistics data platform.

Exhibit 2: Founding a company in Singapore

Arne and Dana, both German citizens, were faced with the challenge of where to found their logistics start-up Parcel Perform. They evaluated three cities: San Francisco – the global start-up hub, Berlin – arguably Europe's foremost start-up capital and Singapore – the world's most competitive nation.

Three major factors made them decide on Singapore as the headquarter:

1. In Singapore it is very easy to found a company as all regulatory aspects are quick and agile. A company can be founded within a day and the government tries to support the young start-up ecosystem as much as they can. Each start-up has the possibility to obtain free consulting from the government. Furthermore, the government tries to connect start-ups with each other to build and foster the ecosystem.
2. E-Commerce, the industry in which Parcel Perform is active, is growing at a more rapid pace in Asia than in Europe / US. Furthermore, the market in Asia is more fragmented, with more cross border shopping, many different time zones and currencies. The Asian market is less transparent than the other two markets.
3. Key for a successful software start-up is tech talent. In Berlin and San Francisco good developers are rare to find and expensive. The war for software engineering talent in San Francisco and Berlin is very fierce with many highly funded star-ups and tech incumbents reaching out for talent. In Asia developers are less expensive and the skills are regarded as similar (D. von der Heide, personal communication, 2019).

However, this decision had two major risks, venture capital in Asia is not as easily obtainable and only few Asian start-ups manage to expand to Europe and the US. TikTok being one of the first examples.

3.2.4 Finding the sweet spot

Digital platforms have been shown to have an enormous disruption potential in various industries. The hotel industry has been transformed by Priceline (owners of booking.com, kayak.com, etc.), the taxi business has been disrupted by UBER and Lyft and the media landscape has drastically been changed by Facebook and Google. However, despite the disruption potential of digital platforms, many incumbents and start-ups have failed to launch successful platforms. The key for a platform to be successful is to find a "sweet spot" where platforms can offer a unique value proposition and differentiate themselves from existing platforms. Furthermore, the own platform capabilities are vital to the success for the launch of a digital platform. In particular, those incumbents fail to launch successful platforms, which lack a platform mindset and talent. The industry experience from Arne and Dana combined with a clear value proposition of Parcel Perform gave the company the competitive edge. In the following the different products of Parcel Perform will be described.

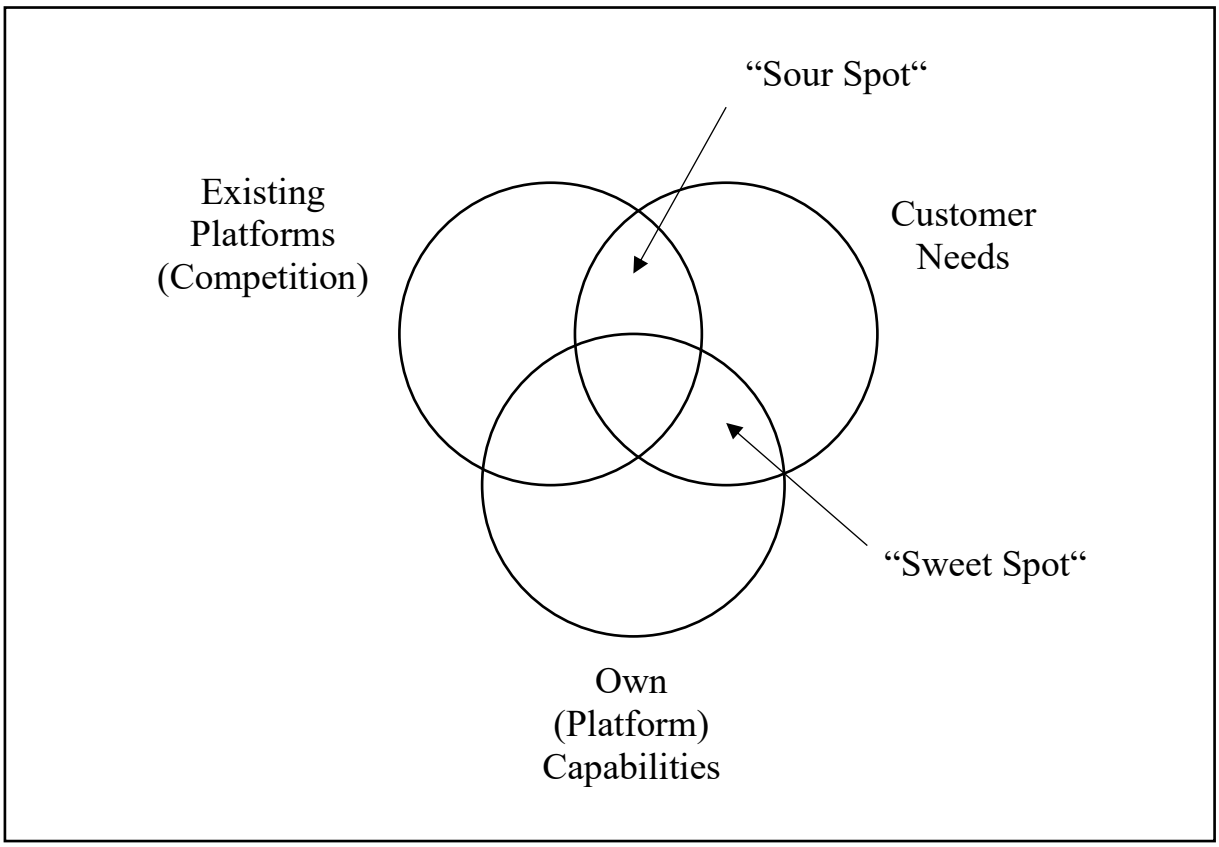


Figure 13: Finding the sweet spot

Based on Schögel & Schumacher 2019

3.2.5 Product overview

Parcel Perform internally distinguishes between three customer groups. First, they offer a parcel tracking search engine *Parcel Monitor* for end-customers who want to track their particular parcel. Second, they offer a software solution for e-commerce providers, which improves the post purchase experience – *Parcel Perform*. Third, they offer a bespoke software for the Singaporean government. Parcel Monitor was their initial product, then the software Parcel Perform launched and finally the white label solution for the Singaporean government was created.

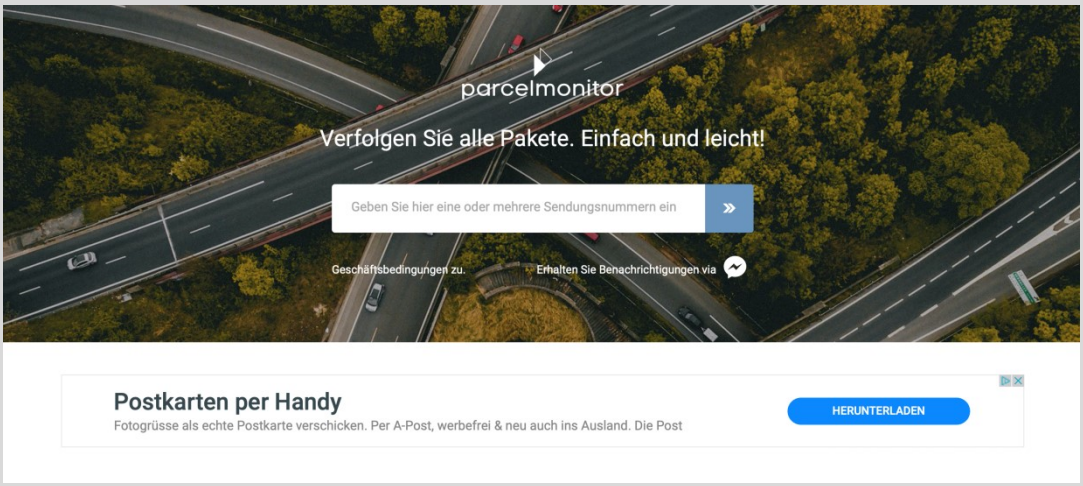
Product A: Parcel Monitor

Parcel Monitor – the product Arne and Dana initially launched is a simple, easy to use parcel tracking meta-search engine. Consumers who want to track their parcel or shipment can simply enter their tracking ID, regardless of the carrier and get an update on the delivery status of their shipment. Through the integration (via API) of over 620 carriers globally they can provide customers with a platform on which they can track their shipment. Khang and his team are constantly onboarding new providers to be able to serve as many customers as possible. Parcel Monitor has over 5 Million visitors per month on their parcel tracking website. Their advertisement revenue from this product alone is 35000 USD per month. Large competitors such as Alibaba or Amazon are already offering parcel tracking information, however, many smaller e-commerce shops cannot offer such a solution.

Parcel Monitor is also used as a lead generation tool: Whenever they realize that many customers of a particular e-commerce shop are tracking their packages via the Parcel Monitor website, they can approach the e-commerce shop and offer them their B2B solution Parcel Perform.

Exhibit 3: Parcel Monitor

With their parcel tracking platform (B2C) they offer consumers to track their parcels regardless of the carrier. Customers can also activate a Facebook chatbot which informs them about the status of their packages. Furthermore, they use the website to generate revenues through google AdWords.



Postkarten per Handy
Fotogrüsse als echte Postkarte verschicken. Per A-Post, werbefrei & neu auch ins Ausland. Die Post
HERUNTERLADEN

Product B: Parcel Perform

Parcel Perform, currently the core product of the company, is a "Software as a Service solution" for e-commerce merchants which ship products via packages. Initially based on the insights gained from the DHL clients, Dana and Arne wanted to offer a software tool which could utilize the shipment data for e-commerce companies. Their software offers three major benefits for their clients:

Tracking experience: E-commerce companies which use the Parcel Perform software can send their clients branded updates on shipment statuses. The notification is completely customizable. Clients can choose when to send a notification, how the notification should look like and which channel the notification should be sent in (SMS, Email). Currently they offer this customized solution in over 30 languages for over 620 carriers.

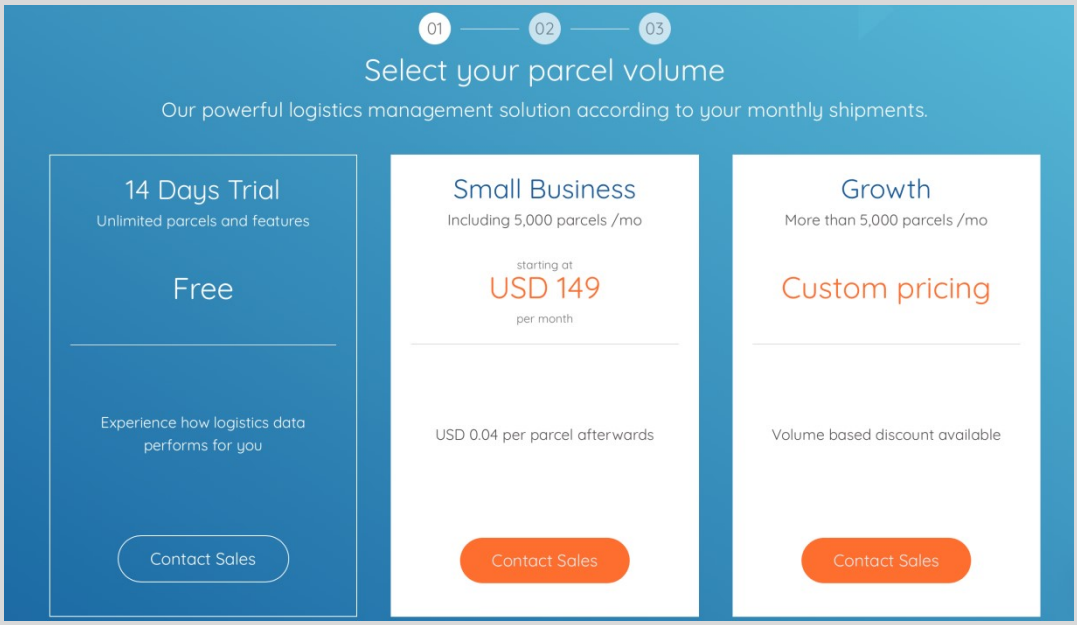
Customer Service Toolkit: With their customer service toolkit, Parcel Perform helps e-commerce providers improve their customer service. Should a customer have a problem

regarding a shipment, the toolkit can provide a quick update for a customer service agent. This toolkit is an internal dashboard which helps customer service track parcels. The interface is intuitive and the search function is extremely efficient. Furthermore, the dashboard offers the ability to add more customer information to each parcel notification to create a personal touch. The automated issue tracking system also gives customer service a heads up for arising problems. This dashboard has integrated over 136 tracking events across multiple carriers.

Logistics Intelligence: Based on the accumulated data Parcel Perform has collected over the years they have developed a logistics intelligence tool. Companies using the intelligence tool can benchmark the performance of different service providers against each other. The tool helps make decisions about which carrier is the most suited one for a specific shipment. KPIs like “time to shipment” or “failure rates” from different carriers are benchmarked. This approach can help in the decision-making process when e-commerce companies have to choose new carriers.

As many other Software Service providers, Parcel Perform offers bespoke modular options for their parcel tracking software. In the following a short overview of the purchase process is described. At first, clients have to decide which parcel plan they want to choose. Depending on the volume of parcels the e-commerce companies send Parcel Perform offers different options. For small businesses under 5000 parcels, they offer 5000 parcels for 149 USD. For companies with more than 5000 parcels they offer custom pricing. In their custom pricing offer Parcel Perform mostly offers three different options.

Exhibit 5: Landing Page – Parcel Perform



After selecting the parcel plan, the customer has to select the add-on modules. Companies can choose to add a tracking experience for 99 USD per month. This module includes notifications and a tracking page. Furthermore, Parcel Perform also offers an A/B testing service for notifications for 199 USD per month.

Next the customer can add the logistics intelligence module for also 99 USD. The logistics intelligence module offers customers an easy way to use reporting system for carrier information. The tool measures in real time the service level performance of carriers.

In the third section the customer can enhance the data plan. They have the option to add additional users (4.99 USD per month), additional carriers (9.99 USD per month) a tracking page (49 USD per month) and premium notification triggers (49 USD). In the final section, customers can adjust their inbound and outbound data interfaces.

Parcel Perform has different opportunities to grow their business. Based on the task-oriented approach the different growth opportunities will be elaborated.

Exhibit 7: The task-oriented marketing approach

The task-oriented marketing approach is ideal to understand the marketing concepts of Parcel Perform.

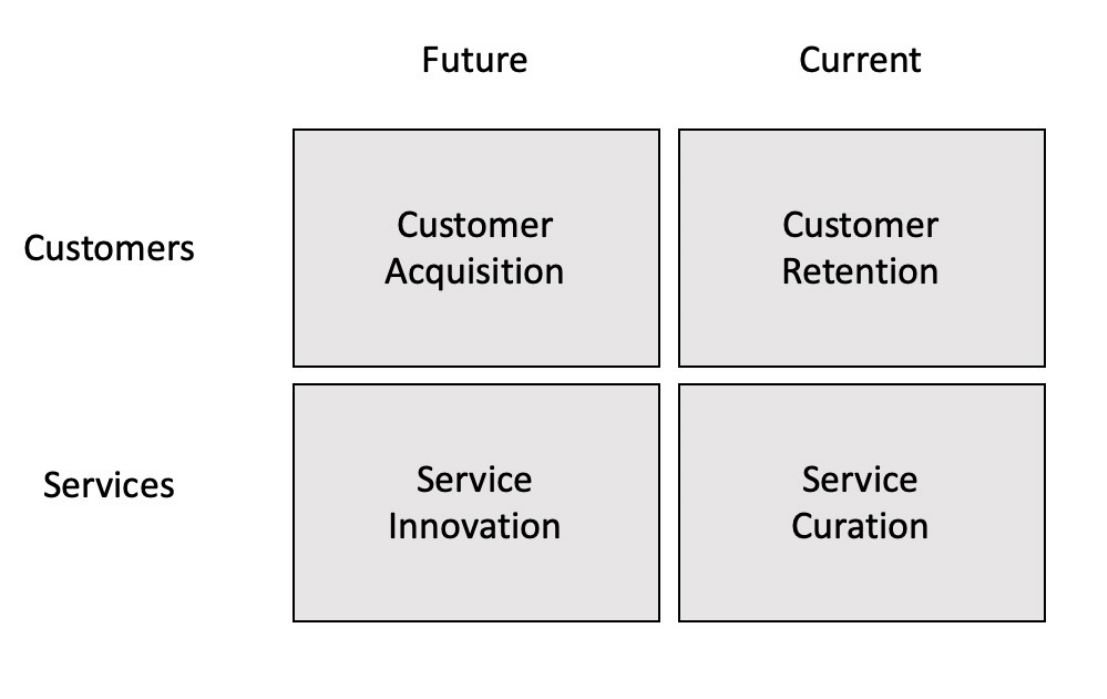


Figure 14: Task oriented marketing approach

Source: Tomczak & Reinecke, 1996

(Tomczak, Reinecke, Mühlmeier, & Kaetzke, 2007)

Customer Acquisition: Parcel Perform currently covers 6 million parcels every month. The global market size of parcels is 4 billion parcels per month. Thus, they have a 1000 x growth opportunity. Parcel perform is currently following a "Land & Expand" enterprise sales engine based on strong inbound marketing (Dana von der Heide, personal communication, 2019).

The customers` need for the Parcel Perform product is strongly based on internal triggers within e-commerce companies. Merely cold selling of the software has proven to be relatively unsuccessful. Therefore, their marketing is heavily relying on inbound marketing. Their lead generation is focused on content marketing and thought

leadership. Conferences and events to build the brand has been a successful marketing approach.

LAND: Customers initially don’t have a big vision when signing up with the Parcel Perform software. They use the product to fix narrow and urgent problems. Parcel Perform initiates their sales with easy to integrate and low-cost solutions for basic parcel tracking services. These low barriers initiate the collaboration with new customers.

EXPAND: Once a customer is on-boarded with the Parcel Perform software, they are open to test and adopt new features. After the onboarding is successful Parcel Perform focusses on continued engagement to upsell customers with strong customer success teams (Dana von der Heide, personal communication, 2019).

The typical Parcel Perform customer journey starts when either Dana or Arne meets a potential client at a conference. After receiving the potential clients´ email address, the customer success teams from Parcel Perform send personalized content, such as case studies or research studies regarding the importance of parcel tracking software. The whole customer journey is managed through the CRM tool hubspot. Hubspot is a customizable developer and marketer software which tracks inbound marketing and sales. Its products and services aim to support companies regarding social media marketing, content management, web analytics and search engine optimization. After onboarding the customer with a basic solution Parcel Perform tries to upsell further software solutions.

Customer Retention: Parcel Perform is constantly working with their existing customers to enhance their customer journey. Their team of customer success managers is integrating more carriers into their service. As the parcel tracking market is a global market, they have integrated over 30+ languages. The easy to use reporting tool is also highly valued by their customers. Furthermore, Dana is currently working on meetups of their clients in order to exchange best practices and add a community around the product.

Service Innovation: Parcel Perform has many white-space up-selling opportunities. Currently they are managing the parcel tracking data & logistics experience for e-commerce companies. They have started to offer further services, such as logistics intelligence. Further services, such as returns management, parcel booking & labels or carrier brokerage may be offered in the future and can be seen in figure 15.

Service Curation: Lastly Parcel Perform is continuously using machine learning to improve their existing services. The data collected from the parcel tracking trains their algorithms to improve estimated delivery times etc.

Product C: Federal Locker and Collection Points Programme

Due to the rapid growth of the e-commerce market, especially in Asia / Singapore the Infocomm Media Development Authority (IMDA), a part of the Singaporean government, made a top down decision to open the parcel locker networks (Dana von der Heide, personal communication, 2019). A consortium of fifteen online merchants, marketplaces and major logistics players have agreed to collaborate in order to create a seamless last mile delivery across Singapore. In the past, many parcel providers had their own locker systems where parcels could be delivered to. As this siloed system leads to inefficiencies the government announced that they were looking for a company which could both strategically and operationally create a platform for the lockers in Singapore. The aim was to create a transparent system which allowed merchants, e-commerce providers, logistic providers and service providers to determine which lockers are available, to enable a reservation system. The overall goal of the program is to raise productivity in the logistics sector, improve overall traffic conditions, decrease carbon emissions and ease the last mile delivery for companies. Also, consumers profit from the program, as the platform will potentially make parcel pickups more convenient.

At the time of the public tender, Parcel Perform was not active in the parcel locker space. However, Parcel Perform *had* experience in the creation of parcel tracking software and thought that receiving the public project could have two major advantages:

1. Acquiring and successfully implementing the project could be shown as a valuable asset for future clients. Often business customers want to have certain references of clients and the Singaporean government could be a very trustworthy reference point.
2. Potentially the Singaporean government was a leading example of the opening of collection lockers. Parcel Perform believed that other countries may follow the Singaporean example, as the system is more efficient. Thus, as other countries would follow suit the Singaporen example, Parcel Perform will already have the know-how in building and operating such a platform.

In their official pitch to the government they included used cases for merchants, marketplaces, locker operators, logistic service providers and consumers. The marketplaces, e-commerce providers and logistic service providers will benefit from the Parcel Perform software with cost saving of the last mile fulfillment, an inter-operable software with a constituent user experience and a greater coverage for companies to reach new consumers.

Locker operators will benefit, as they have an improved access to customers with easier onboarding of new players, a maximization of the assets which ultimately leads to a more efficient utilization of the assets.

And finally, the customers will benefit from the software, as the platform enables a wider coverage of lockers and a more flexible integration to the consumers´ lifestyle.

Even though Parcel Perform is a start-up and did not at the same time have the software available, they were granted with the project. They conceptualized and built the platform for the locker system in Singapore for the Singaporean government.

3.2.6 Competitive landscape

As the Parcel Perform offers two different products (B2B and B2C) the competitive landscape is split into three groups:

1. Competitors which offer a B2C solution
2. Competitors which offer a B2B solution
3. Competitors which offer both a B2B and B2C solution

In the following a short overview of the different competitors will be given.

1. Competitors which offer a B2C solution

Boxoh: Boxoh offers customers to enter their tracking number from USPS, UPS, FedEx and DHL. After entering the tracking number a google maps is opened and the location of the package is shown in real time on google. The estimated delivery time is also mentioned and customers can subscribe to the tracking information via RSS feed.

PackageTrackr.com covers DHL, UPS and FedEx. Apart from these carriers 20 global operators are integrated. After entering the package number, the route of the package as well as the transit points are shown. PackageTrackr also offers an app which sends push notifications when certain transit points are reached. Furthermore, PackageTrackr also offers users to create an account. After creating an account, users can receive parcel information via SMS, e-mail or twitter notifications.

*TrackMyShipments.*com is mostly an email-based tracking site. The software supports FedEx, UPS, USPS and DHL. Customers can forward their shipment confirmation email to the online tracking software. The software then automatically extracts the relevant information and starts tracking the shipment, regardless of the email format which was sent. The consumers are informed via email or can log on to the TrackMyShipments.com website. However the maximum amount of shipments which can be tracked is 10 at a time.

Track-trace.com has 10 carriers running on their system. They also have containers and air cargo trackable via their website. However, customers have to choose which carrier their shipment is on. The system does not automatically differentiate based on the tracking number.

2. Competitors which offer a B2B solution

The first B2B competitor is from Munich, Germany. Founded in 2014, parcelLab is a cloud-based software for parcel monitoring. Furthermore, they also offer bespoke customer communication tools during post-purchase. Their claim is that online shops "can control the post-purchase customer journey". In 2019 they received their multi-million-dollar Series B financing round including venture capital investor Coparion. With this financing round parcelLab aims to expand into new markets and build further technology. The company now employs more than 50 employees, has three offices in Paris, London and Munich and customers such as Ikea, Lidl and MediaMarktSaturn. The best funded competitor is Sorted. Founded in 2010 in Manchester, sorted has raised USD 17 Million in 2019, after proving revenue growth of 400% per year. Sorted currently offers three products for e-commerce companies:

1. SortedHERO, an API which allows retailers to display real-time delivery options at checkout.
2. SortedPro, a delivery management platform for carrier and shipping management.
3. SortedREACT, a software which automates shipping updates post purchase.

Sorted is currently one of the fastest growing tech companies from the UK. They are currently active in Europe. They are working with retailers such as ASOS, Lush and N Brown.

3. Competitors which offer both a B2C and B2B solution

The main competitor for Parcel Perform is Aftership, as they offer both a B2B and B2C solution. After winning the Start-up Weekend Hong Kong 2011 and the Global Start-up Battle 2011, the company received USD 1 million series A funding. Afterships business model is automated shipment tracking as a service. They have 400 shipping services worldwide integrated, such as UPS, FedEx and DHL. Aftership offers a reporting tool to check the status of shipments regardless of the carrier and also offers an automated notification system for customers. Aftership has integrations with large e-commerce platforms such as Shopify and eBay. In 2014 Aftership was the first provider to offer the package tracking API that allowed e-commerce companies to track their packages from a single source. Furthermore, the e-commerce providers can monitor the service providers´ and carriers´ performance.

Exhibit 6: Competitor Landscape – Parcel Tracking

In the following a short overview of the competitors will be shown.

Table 2: Competitor landscape of Parcel Perform

The major Parcel Perform competitors

	B2C Tracking	B2B Software	Logistics Dashboard	Government Solutions	Carrier Marketplace
Boxoh	+	-	-	-	-
PackageTracker	+	-	-	-	-
TrackMyShipments	+	-	-	-	-
Track-trace	+	-	-	-	-
parcelLab	-	+	+	-	-
Sorted	-	+	+	-	+
Aftership	+	+ (SMU)	+	-	-
Parcel Perform	+	+	+	+	-

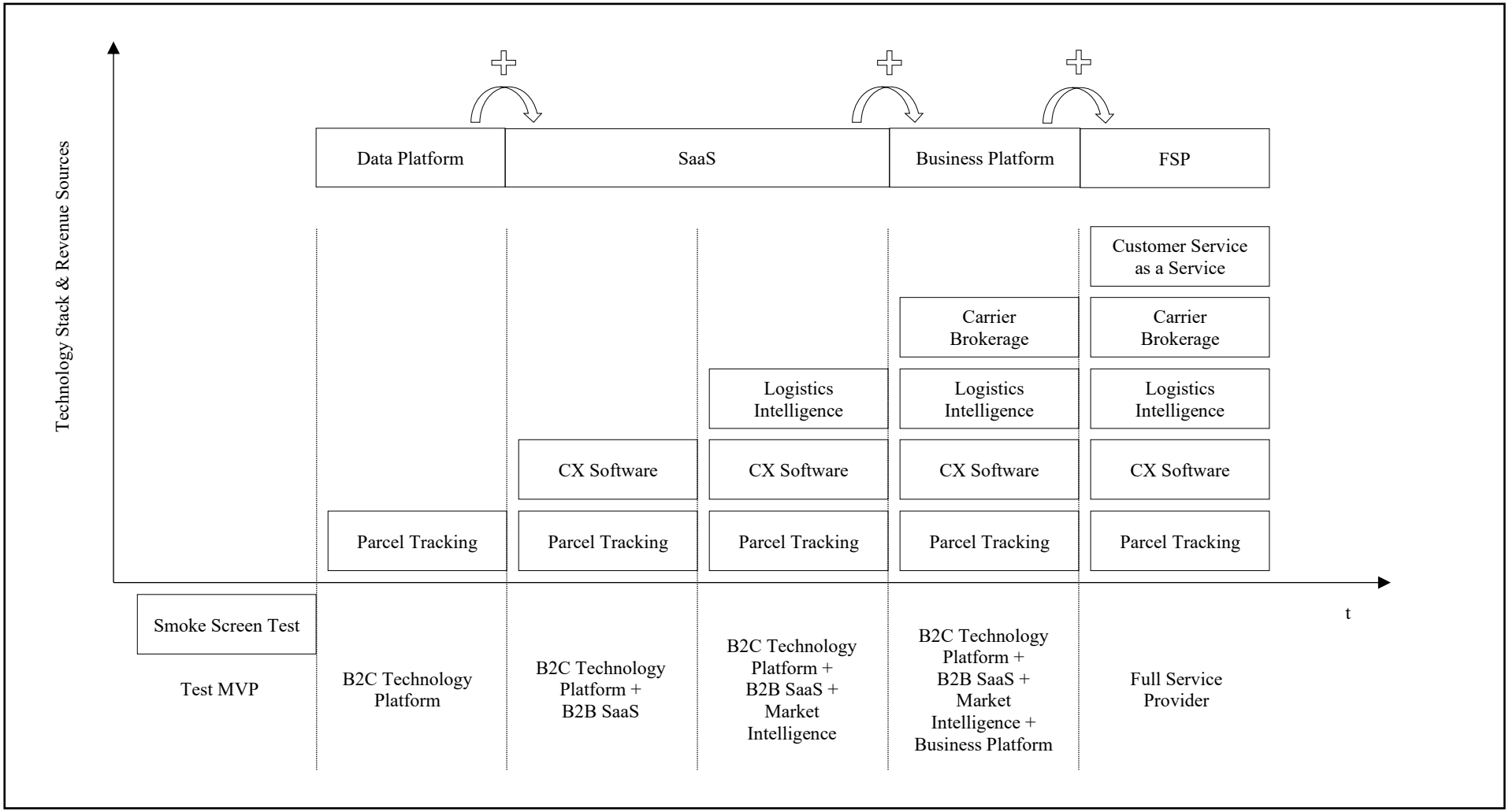


Figure 15: From data platform to business platform

3.2.7 Start-up culture at Parcel Perform

"Culture eats strategy for breakfast"

- *Peter Drucker*

The company culture at Parcel Perform is regarded as very important by Dana and Arne. When hiring new employees, the personal fit is crucial. Parcel Perform believes that their employees should not just have an interest in the tech space but also fit in with the other employees on a personal level. Their team is international with employees from Germany, Singapore, The Netherlands, Australia, Vietnam and Malaysia. Arne and Dana believe diverse teams are more creative and crucial for their success. Furthermore, for a tech company they have many female employees (including a female founder).

They host many internal events in order to keep the employees engaged and motivated. One of those events is a monthly team breakfast, where employees bring their personal favourite food. Every Monday they have a 10 minute stand up meeting. In this meeting – taking place while standing – each employee has one minute to share their current challenges or successes and can ask other employees for help. The topics don't just have to be related to Parcel Perform but can be personal topics. Furthermore, every Friday they have a "Friday Reko (= Regelkommunikation)" where each employee can tag their current thoughts, challenges or success with emojis to a wall and let other Parcel Perform colleagues´ comment. They regularly engage their employees with team dinners or lunches as well as widely encouraging informal chats.

3.2.8 Founder marketing

Experts believe that one success factor of Parcel Perform is the founder-based marketing done by Dana von der Heide. Similar to Elon Musk at Tesla, Dana has managed to create a hype about her person. Especially in the male-dominated logistics sector, where for example in Europe only 22% of the workers are female (European Commission, 2020) and in the technology sector, where only 11% of managers are female (McKinsey, 2018), she stands out. She is a self-claimed "e-commerce logistics nerd" and uses her LinkedIn profile for successful lead generation.

Exhibit 7: Rebranding Parcel Perform

Due to the strategic shift from SME clients to larger enterprise clients, Parcel Perform decided to rebrand their communications efforts. As can be seen in the rebranding of the logo, Parcel Perform tried to have a "sleeker more techy look and feel". However, they kept the colours the same but simplified the logo. In the new logo, the dark blue triangle signalizes the data and the light blue triangle the insights which can be gained on the data.



3.2.9 Challenges

Currently Parcel Perform has three major challenges: Growth, Pricing and building a Platform business model around their existing data.

Growth: Parcel Perform has two major options on how to grow their current business: 1. Upsell to existing customers or 2. Acquire new customers. As they recently changed their strategy to focus on larger enterprises, the duration of the sales cycle has increased. Before, when focusing on SMEs, the decision-making process within the customers was much quicker and thus the sales´ cycle shorter. Larger SMEs often have a more complex procurement department and larger buying centre. Most of Parcel Performs leads are generated through inbound marketing, conferences or through their B2C parcel tracking tool Parcel Monitor. However, many new competitors are entering the market with customizable parcel tracking solutions and differentiation is becoming more competitive.

Pricing: In their recent brand relaunch Parcel Perform decided to change their pricing model. Before the relaunch they offered three pricing options: bronze, silver and gold. Bronze was a free option with basic parcel status notifications for customers, silver and gold were paid options for SME clients. Gold customers received all new functions integrated automatically. In their relaunch they offer a free 14 days´ trial with the Parcel Perform software, a basic subscription starting at 149USD for 5000 packages and a custom solution with individual pricing for larger clients. Their change in business model had different strategic reasons. Before, for their gold customers an upselling was impossible. Also, in the old freemium pricing strategy, most customers merely used the free option and were resistant to upselling attempts.

Building a platform business: The final and most strategic challenge Parcel Perform is facing is transforming their business model into a platform business model. The main purpose of a platform business model is to initiate the exchange of goods and services, thus facilitating value creation for each party using the same platform (G. Parker et al., 2016). Such digital platforms are reorganizing and creating new industries without clear

borders (Moser et al., 2016). These so called shifts around digital platforms may lead to an estimated $60 trillion revenue being redistributed by 2025 (McKinsey, 2018). This shift is continuously taking place and already some industries have been disrupted by platform businesses, such as: Advertising (Facebook, Google or Instagram), travel (Skyscanner, Airbnb or booking.com) or retail (Zalando, Amazon or Alibaba). All these industries have been reorganized around these matchmaking platforms. Often, due to the nature of the network effects underlying platform business models, platform monopolies can arise and lead to a so called “winner takes all” situation, in which there is one dominant company in a market (Cennamo & Santalo, 2013).

Parcel Perform wants to enter the carrier brokerage market. They believe that they have a competitive advantage, as they have multiple insights on carriers thanks to their data aggregation. The goal is to become a marketplace for package shipments. However, they face the challenge, that the carrier market is very fragmented and the technical integration is very complex.

3.3 Findings of the study

The development of digital platforms is a highly complex and strategic process. In the following the most notable findings from the critical case study of Parcel Perform will be elaborated, the theoretical / managerial implications discussed and a conclusion be drawn.

The process of building a platform

The process of building the Parcel Perform platform can be divided into four distinct steps: Identifying the customer need (1), identifying the business need (2), creating a lock-in (3) and upselling and transforming into a platform (4).

1. The Identification of customer need: In order to build the leading platform in the logistics industry, Parcel Perform started with a niche problem customer´s faced: The lack to track their parcel through a single interface / website.

Previously customers had to visit the specific carrier website and enter the tracking number. The carrier websites were not built to have an appealing customer experience and all differed in form and structure. Furthermore, in some cases the consumer did not know from which carrier they were receiving their package and entered the tracking codes at the wrong carrier websites. After testing their hunch with the smoke screen test, they could easily verify the customer need.

2. The identification of a business need: Based on the founders´ insights from their previous careers at DHL, Parcel Perform founders had already profound knowledge about the issue of parcel management at e-commerce companies. E-commerce companies lacked the post-purchase customer experience. Companies did not have the ability to create further touchpoints during the shipping of a package. The software which Parcel Perform developed enabled the access and standardization of the logistics´ data, which could be used both for solving the customer tracking need and building the parcel customer experience software.

3. The creation of lock-in: The land and expand approach is a unique approach in which customers are introduced to Parcel Perform with a small product offering (land) and are later upsold other solutions (expand). The idea is first to prove to e-commerce companies that Parcel Perform is a trusted partner and then expand their offerings. The software is a standalone product and not a digital platform. Parcel Perform deliberately did not build a digital platform at this stage.

4. The upselling and building of a platform: As soon as Parcel Perform had obtained enough clients and proven the advantage of their software, they could start upselling and building the digital platform in the logistics industry. The customer was locked into the Parcel Perform software and the expansion from product to platform could seamlessly take place. With every further update and solution, Parcel Perform created, further upselling opportunities evolved. Parcel Perform could transform their business model into a platform business model,

however needing the necessary lock-in and trust through the digital solutions they previously sold.

Parcel Perform had the vision to become the leading logistics platform but started with a small customer need, evolved into a B2B software and transformed into a digital platform. Key to their success was that most products complemented their existing products. Every new product added to their existing products and brought Parcel Perform closer to their vision.

Platform marketing communication

Advertising and communication at digital platforms differ from traditional product businesses. Whereas in conventional business models, there is a linear value chain and customer segments do not differ that much, Parcel Perform has multiple customer groups which vary and subsequently have to adapt their communication based on each segment (b2b, b2c, b2g). On the one hand Parcel Perform manages software for the Singaporean Government and large corporations as their clients and on the other hand they have end-users which want to track their parcel through Parcel Monitor. Depending on the customer group / segment the communication has to differ. Their main current revenue stream, the software as a service solution for e-commerce companies is mostly communicated through conferences and content marketing via the professional network LinkedIn. Their parcel tracking tool, Parcel Monitor is optimized with search engine optimization on Google.

Parcel Perform deliberately chose two different, but related names for their business. Parcel Monitor is the user tracking tool and Parcel Perform the software as a service business. The reasoning behind this name giving is the easier distinction for their paying B2B customers. B2C customers are directed to Parcel Monitor and B2B customers to Parcel Perform.

Credibility is key

During the interviews and research, on multiple occasions Parcel Perform highlighted how important credibility is in the logistics sector. The main reason why the start-up

decided to build the software for the Singaporean government was to gain credibility for their clients. The government in Singapore is highly respected and has strict regulations regarding data security and the ability to build the software for the lockers showed that Parcel Perform is a trusted partner.

Especially during their B2B sales pitches at Asian e-commerce companies the credibility from the project with the Singaporean government did help build trust. Studies have shown that e.g. trust building with Chinese businesses is a longer and more difficult process that in western business culture (https://hbr.org/2015/02/understanding-trust-in-china-and-the-west).

Untapped assets are competitive advantage

The data which Parcel Perform accessed, are theoretically freely available for everyone. However, there is no consolidation tool, which can collect and standardize the data. Parcel Perform managed to use untapped assets, i.e. the freely available data, to build a product. This is often seen as a major competitive advantage of digital platforms: the fact that they can use assets which otherwise would not be used. UBER managed to make use of the otherwise unused asset of automotive information, Airbnb managed to utilize potentially unused accommodation. Successful platforms have found ways to create value from unused assets.

Also, the study shows that suppliers can be listed on platforms even without their knowledge. UPS, China Post, DHL etc. are all listed on the Parcel Monitor platform and rated by the consumers, even without their consent. Parcel Perform are creating value through information about carrier suppliers. Customers can evaluate how their shipping experience was. With these data, Parcel Perform can help e-commerce companies choose the most reliant carriers for their purpose.

Matchmaking alone is tough and often not good enough

Lastly, the case study shows, how complex the process of building a platform is. The mere matchmaking of suppliers with consumers is not sufficient enough to create value. Many business models evolved (“The UBER for X”), but later failed. Parcel Perform created a user value through parcel tracking, then a business value through customer

experience and then were able to build the digital platform. Simply building the platform without the other previous lock-in effects and products would not have been possible. Long term successful platforms have to integrate and provide well integrated products for their suppliers.

3.4 Managerial implications

After reviewing the critical case study six crucial aspects for management practice were identified. Some of the aspects were also taken into consideration for further studies in the dissertation. First overall managerial implications will be discussed and then specific implications for marketing managers.

3.4.1 General managerial implications

Platforms can leverage suppliers without "asking"

Due to application programming interfaces (APIs) Parcel Perform could access carrier parcel data. Also, on the Parcel Monitor website customer ratings were given on carrier experience (e.g. problems with delivery or damaged packages). Parcel Perform managed to build value around logistic carriers without their consent or knowledge. Digital platforms often create value through, e.g. rating systems or information about products. Traditional pipeline companies should always be aware, that their products and services could be evaluated on digital platforms. Bad reviews on such rating sites may lead to a decrease in e.g. sales. In a study conducted by Tripadvisor, the dining decision is influenced by online reviews by 94% of all American customers (Tripadvisor, 2018). TripAdvisor lets customers review and rate restaurants online and managed to be a crucial part of the customer journey for dining. TripAdvisor does not need the consent of the restaurants to list them online, however, can play a vital role for customer acquisition.

Mere matchmaking malfunctions

One key aspect the case study on Parcel Perform demonstrates is that in order to create a digital platform multiple previous steps are necessary. Parcel Perform always wanted

to create stand-alone products. Parcel Monitor and Parcel Perform both were software based solutions and could function without a platform-based business model. However due to the experiences and lock-in Parcel Perform had with its B2B clients, the building of a platform was possible. Examples from practice also highlight this aspect. OpenTable an online booking system for restaurants quickly realized, that the mere matchmaking was not good enough and that they had to add further value for their customers (restaurants) with a table management system. The aspect of building products and services around a platform or userbase will be discussed in the following chapter.

Business to business has platform potential

Transformational processes in business to business markets tend to be slower than in business to consumer markets (Morgan, 2019). The same can be said about the platform revolution. In various business to consumer markets, large platform players already do exist (retail, transportation, media). However, the example of Parcel Perform shows that there still is a vast potential in other industries. In the following chapter other business to business platforms are presented and analysed.

Building platforms is complex - be agile, but have a masterplan

Parcel Perform started with a vision to disrupt the logistics industry which is "stuck in the digital stone-age". During their journey, the vision always stayed the same, but Parcel Perform had a very agile approach on how to reach the overarching goal. Their application for the software solution from the Singaporean government is one example of an agile adaption of their product. Furthermore, their experimentation with the pricing of their software showed that they could adapt quickly.

Platforms can be global, regional or local

Parcel Perform started off in Asia, however, due to the nature of the logistics industry quickly expanded globally. The underlying business of a platform is defined in its global scope. As logistics is a global operation, Parcel Perform has the potential to expand globally quickly, however, with the inherent risk of global competition. In other platform markets, such as mobility, the global expansion is not as easy. Business models

which rely on local transaction, such as mobility, cannot leverage global network effects: A further UBER driver in Zurich does not help a customer in Geneva.

3.4.2 Marketing manager implications

Overall, six implications for marketing managers can be made: two-stakeholder focus, founder marketing, value through aggregation, touchpoint ownership and brand vision.

Two-stakeholder focus

Marketing managers of digital platforms have two different stakeholders to focus on. The one group are the suppliers, and the other group are the customers. Parcel Perfom deliberately differently brand their products for enterprises (suppliers) and their customer segment (users). Thus, they name their customer service software Parcel Perform and their user service Parcel Monitor. The advantage of segment specific branding is that the different groups can be catered to with more specific information. However, the disadvantage is that, should both brands grow in relevance a recoupling could be difficult.

Founder marketing

One interesting aspect the case study of Parcel Perform revealed is the importance of founder marketing. A female founder in a dominantly conservative male industry is something unique. Dana managed to leverage her position and regularly used her LinkedIn network to acquire new sales leads and stay in the relevant mindset of customers. Founder marketing can be used as a price-worthy but successfully way to market the product or service.

Value through aggregation

As the consumer product Parcel Monitor initially does not have a strong brand. However, Parcel Monitor, by aggregating carrier information can offer a service, which existing brands cannot offer. This service is to be able to obtain information about a parcel at any given time regardless of the carrier. Thus, Parcel Perform can build the brand Parcel Monitor by adding a service which the competition cannot offer. Parcel

Monitor is an objectively better product than existing carrier owned parcel tracking services, as it lists a much more comprehensive tracking opportunity – which is even used by Google. By the definition of marketing management Parcel Perform with the product Parcel Monitor has created customer value through objectively a better product.

Touchpoint ownership

Parcel perform believes that owning the relevant customer touchpoints is key to building a successful brand. As can be seen in figure 15, Parcel Perform begins as a data company without a relevant brand. However, as soon as the carrier brokerage is introduced for B2B clients, Parcel Perform owns the purchase phase of logistic carriers. Companies will then book their carriers via Parcel Perform and not via the carrier website. Similar business models already exist, not however with the extensive customer journey customization as Parcel Perform offers. Examples of such carrier brokers are Shippo or Forto. Parcel Perform believes that by owning both the pre- and post- customer journey touchpoints, they can at some point ontain the purchase touchpoints.

Brand vision

Parcel Perform focusses their resources on product not on branding. The main objective of the start-up is to build a product company not a brand-based company. It comes to no surprise that the new logo was not done with an external agency but quickly and efficiently within the company. Customer value is created by leveraging a combination of technology and external brands (e.g. FedEx, DHL) to provide a new offering for customers. The long-term goal is to build a brand around the product and not a product around the brand.

3.5 Theoretical implications

This single case study shows the complex and calculated process behind building a digital platform in a completely new industry environment. It explains the necessary steps for building a platform-based business model from the idea to the finished product in the form of a platform. Also, the study highlights how starting a company and doing a global business out of Asia may be different regarding funding and trust building for

Asian consumers. Especially the role of founder-based marketing can open new fields of research that have to be looked into in the future.

The results suggest that the emergence of digital platforms is an iterative but planned process and can happen in business to business environments as well. Mostly the critical case study opens new research questions for further examination, such as:

(1) How do companies launch a platform and integrate supplier brands (e.g. how does Parcel Perform approach the carriers when building their platform business model)?
(2) How do suppliers leverage platform brands for a competitive advantage (e.g. How can DHL leverage the Parcel Perform platform)?
(3) How do consumers evaluate the importance of supplier and platform brands? (e.g. how do consumers evaluate DHL on Parcel Perform)?

These three questions raised through the Parcel Perform case study will be answered and elaborated throughout the dissertation. Chapter four will deal with the integration of suppliers chapter five will elaborate the strategies suppliers can choose with regard to digital platforms and chapter six will study how customers evaluate the collaboration between suppliers and platforms.

4. Study 2: Platform perspective

In order to answer the question raised in the case study and the literature review, how platforms can integrate suppliers, first an analysis of successful platforms will be made and second interviews with managers and experts will be analyzed.

One fundamental growth mechanism of platforms is to open or loosen the governance (L. D. W. Thomas et al., 2014). As discussed in 2.1.4, there are two ways of opening a platform, one is to allow more users onto the platform (access) and one is to allow users to do more on the platform (authority). In order to gain a basic understanding of these two ways of collaborating with suppliers, it will be analyzed how current successful platforms define their openness. After analyzing the successful platforms, qualitative interviews will be conducted in order to gain a broader understanding of the collaboration between platforms and suppliers.

Thomas et al., (2014) proposed both access and openness (= authority) mechanisms for growing a successful platform. However, no studies have been conducted which examine if there is a trade-off between both growth scenarios. First it will be analyzed whether a trade-off between the access to a platform and the authority of a platform exists. This analysis will be performed by conducting a quantitative study with 119 platforms and their strategy regarding access and authority. In the second step qualitative interviews will be performed to discover the advantages and disadvantages of an open vs. closed the access / the authority on a platform.

4.1 Overarching methodology

As previously mentioned, the study will consist of a quantitative study and be enriched through a qualitative multiple embedded case study. The goal of the initial quantitative study is to examine if there is a trade-off in giving brands access to a platform vs. giving brands control on a platform. In order to do so, scales for access and authority were developed and platforms were analyzed based on existing research. Afterwards a qualitative study was conducted to understand the strategic trade-off between access and authority.

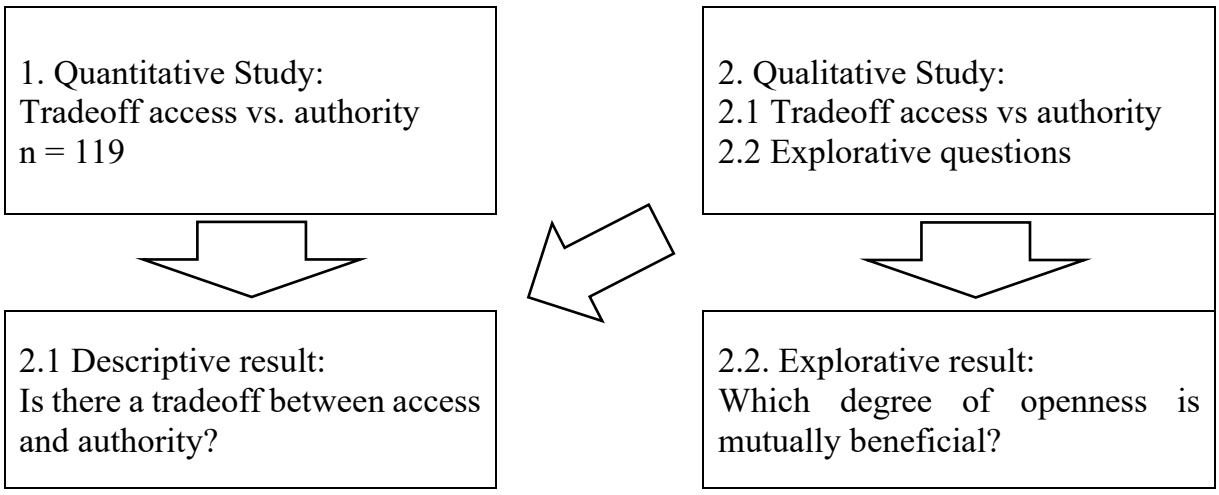


Figure 16: Overview of data sources and study results

4.2 Study 2.1: Trade-off between access and authority

To understand whether there is a trade-off between granting access vs giving control, a representative sample of successful digital platforms had to be found. Furthermore, scales which indicate an open access vs. closed access or strict authority vs. loose authority had to be developed.

Methodology

The samples of digital platforms were taken from two different data sources. On the one hand 25 successful digital platforms listed in the S&P 500 from the dataset from Gawer et. al (2019) were chosen. This data set had also been used for other successful publications and was published in the book “The platform economy”. In his study only platforms which had a transactional business model were chosen and not innovation platforms which were examined in the studies done by Gawer et al (2019).

However, as many digital platforms are still privately owned, it was decided to enrich the dataset with privately owned digital transaction platforms with a valuation larger than one billion USD (if the valuation of a company exceeds 1 billion USD it is considered as a “unicorn”). To do so, a complete list of unicorn companies was obtained

from the market research company CBInsights (2020) and the relevant companies which had a business model based on transaction between two parties were filtered. In the CBInsights report there were a total of 452 unicorn companies of which 94 were identified as platform-based business models. Secondary data (websites, white papers, presentations, reports etc.) were used to identify which of the unicorn companies followed the mechanics of a market intermediary platform. It is important to highlight that innovation platforms and pure technology platforms were not included in the sample. An overview of the data sources can be seen in the figure 17 below.

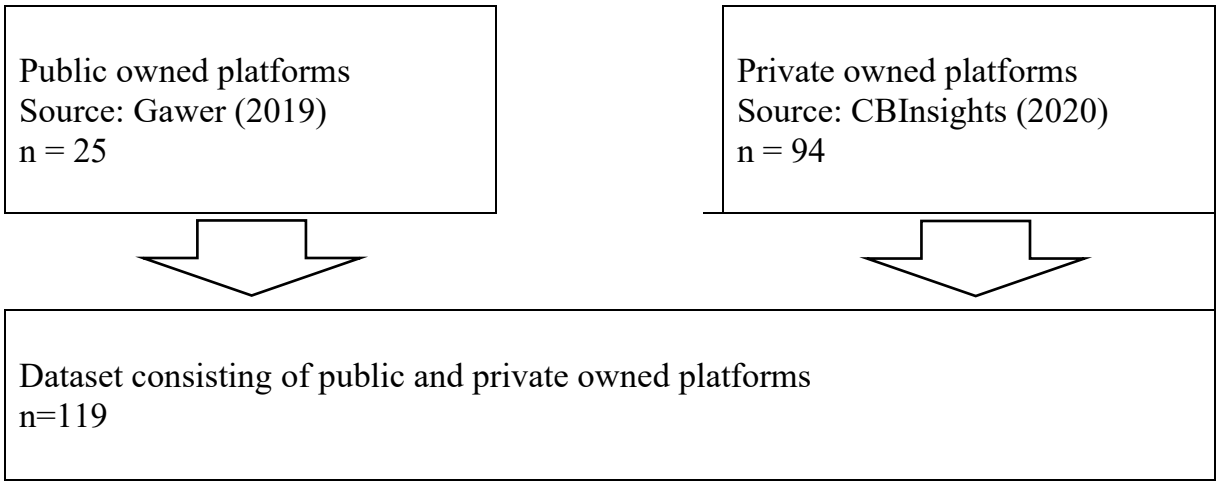


Figure 17: Overview of data sources for list of successful platforms

After obtaining the list of digital platforms which could be analyzed regarding the governance, scales for both access and authority had to be developed. The scales for brand access were derived from existing scales in information science (Benlian et al., 2015). They have developed scales for the openness regarding the access of software platforms. As argued by Benlian et al. the "business side of a platform cannot be divorced from the technical side". In total eleven different items allowed to identify how open a software platform is, which will be explained and adapted in a marketing context below.

1. *Learnability of technical standards:* The first item describes how easy it is for participants to obtain the necessary skills to participate on the platform. This item was adapted in a marketing context. The platforms were evaluated on how

difficult the participation on a digital platform is from a technical perspective. If suppliers needed no technical knowledge to participate on a platform the platform was considered as an easy access. If the integration needed any kind of technical support for access the access was considered as strict. The coding was binary and 1 was considered as a hard access and 0 as easy access.

2. *Availability of development tools*: In the information research this item describes the availability of further tools which can help developers to program software for platforms. This item was adapted in a marketing context to the *availability of marketing tools* on digital platforms. The coding was binary with 0 allowing all participants to market their products on platforms (e.g. through retail media) or 1 which did not allow differentiation on platforms.
3. *Technical interoperability*: The technical interoperability in information science describes to what extent digital platforms can be integrated with other software systems. This item was changed into platform interoperability and describes if suppliers can promote their products on different platforms through an existing platform. The platform interoperability was considered closed when no promotions were possible on other platforms (coding of 0) and open, when promotion on other platforms was possible (coding of 1).
4. *Cost of required technical equipment*: The cost of required technical equipment describes costs such as annual fees etc. which may hinder suppliers in joining a platform. This item was changed into fixed participation costs. If a platform had fixed costs which may hinder participation, the platform was considered as hard to access (coded as 1) and respectively if there were no fixed costs the access was regarded as easy (coded as 0).
5. *Cost of selling*: The costs of selling describe how and if selling a product on a platform would in some cases hinder participants to join. This item was kept identical to the original item from information science research. If the costs of selling a product via a digital platform constrain a supplier the access was considered as strict (coded as 1) and if there were no costs, the access was considered as open (coded as 0).
6. *Restrictions in terms and conditions*: Should there be any specific terms and conditions which hinder the participation of suppliers (such as certain thresholds

in participation or a minimum requirement of products sold via a platform) the platform was considered as hard to access (coded as 1). If there were no specific restrictions in the terms and conditions in participation the platform was considered as open access (coded as 0).

7. *Clear application process:* The application process describes how transparent and standardized a way suppliers can join a platform. If the application process can be done automatically with a simple sign up and no further control via the platform, the access was considered as easy (coded as 0). If the application process was on a negotiation basis or not transparent the access was coded as strict (coded as 1).
8. *Search, filter & rank transparent:* If a digital platform has a transparent way of how customers could search, filter and rank suppliers the platform was considered as open access (coded as 0). If there was no ranking system between suppliers or customers could not search specific suppliers, the platform was considered as strict access (coded as 1).
9. *Suppliers and end-users can communicate*: If there is the possibility for suppliers and users to communicate with each other via the platform, the platform was considered as open access (coded as 0). However, if there was no way to communicate between suppliers and end-users the platform had a strict access (coded as 1).
10. *Suppliers can communicate*: Analogue to supplier and end-user communication, the communication between different suppliers was also examined and coded. Should it be possible that suppliers communicate with each other via the platform, it was considered as open access (coded as 0). If there was no communication possible it was considered as strict access (coded as 1).
11. *Instant technical support*: Finally, the availability of technical support during the integration on the platform is also an indicator on how open the platform is regarding its access. If there was instant technical support possible (e.g. via chatbot or call-back function) the platform was considered as easy to access (coded as 0). If the onboarding process was not helped by a support team, the access was considered as difficult (coded as 1).

These eleven items were the basis on which the access scale was developed. For each platform an access value was determined by summing up the eleven items and dividing them through the number of items. Subsequently if a company had an access value of 1, it was very restrictive of who could participate on the platform. Respectively if the company had a value of 0, the platform was very open regarding its access.

The scales for brand openness were derived from marketing theory and based on Kotler & Armstrong (2013). Kotler and Armstrong summarized all activities a company does in marketing in the marketing mix. This marketing mix is the combination of all efforts a company can take to position itself in a target market. These tools can be summarized into four different subtypes, also known as the four Ps of marketing: Product, price, place and promotion. Based on these four Ps by Kotler & Armstrong (2013) the scales for authority were developed. Platforms were evaluated to which extent they do tasks for participating suppliers. In the following the different items which were defined will be described. First the items regarding product authority, second the items regarding price authority, third the promotion authority items and finally the place items will be dealt with.

Kotler & Armstrong identified seven subcategories for the product category of the marketing mix: Variety, quality, design, features, brand name, packaging and services.

1. If the *variety* of products offered on a digital platform is determined by the platform, the authority of the platform is considered to be strict (coded as 1). Should suppliers be able to vary in their offerings of a product category the authority was considered to be loose (coded as 0).
2. Whenever a platform takes responsibility for *quality* control (e.g. through supplier verification etc.) the platform is considered to have a strict authority (coded as 1). Should the quality control not take place on the platform the quality authority was considered as loose (coded as 0).
3. Should the *design* of the product offered on the platform be influenced by the digital platform, the design authority was considered to be strict (coded as 1). On

the other hand, if suppliers have complete control over the design of their products the authority was considered to be loose (coded as 0).

4. If specific extra *features* of a product were offered and sold by a digital platform, the feature authority was regarded as strict (coded as 1). Respectively, if the features were left for the suppliers to determine, the authority was regarded as loose (coded as 0).
5. Whenever the suppliers on a digital platform have the possibility to differentiate their offering on a digital platform through a *brand name*, the authority was considered to be loose (coded as 0). On the other hand, if the platform dominated the branding of the offered product, the brand authority was considered as strict (coded as 1).
6. The *packaging* authority was considered strict, whenever the platform packaged the product (coded as 1) and the supplier did not have the possibility to differentiate in the packaging. In the case of digital products, the interface was regarded as the packaging. Should the suppliers be able to package their own products or create their own interface of a digital product the packaging authority was considered as loose.
7. If further *services* could only be obtained via the platform, the service authority was considered to be strict (coded as 1). Should further services be obtainable via other means and not through the platform the service authority was considered as loose (coded as 0).

These seven mentioned dimensions summarize the product authority of a digital platform. The product authority shows the extent to which a digital platform is involved in the product or service which is being offered on the digital platform.

In the following the price authority variables will be explained. Kotler & Armstrong (2013) identified five relevant subcategories of price in the marketing mix: List price, discounts, allowances, payment period and credit terms.

1. If a platform determines the *price* of a product, the price authority was considered as strict (coded as 1). Should the price be determined by the customer or supplier the authority of the price was considered as loose.

2. The ability to *discount* products and services offered on platforms was examined under the discount authority. Whenever the platform could force discounts on their suppliers the authority was considered as to be strict (coded as 1). Should the supplier be able to offer discounts without the consent of the platform the discount authority was considered as to be loose (coded as 0).
3. The control over *allowances* was also examined. Should allowances be determined by the platform, the allowance authority was considered as to be strict (and coded as 1). If suppliers had control over the allowances, the authority of allowances was considered as to be loose (coded as 0).
4. If suppliers could determine the *payment period*, the authority was considered as to be loose (coded as 0). On the other hand, if the payment period was determined by the platform, the authority was considered to be strict (coded as 1).
5. Lastly in the price category the *credit terms* were analysed. If the platforms determined the credit terms, the authority was considered to be strict (coded as 1). Respectively, should the credit terms be negotiable by the suppliers, the authority was considered to be loose (coded as 0).

The price authority could be derived from the five price items mentioned above. A price authority scale was derived by adding the five items and dividing them through the number of items leading to a value between 0 (= loose price authority) and 1 (= strict price authority).

The third aspect of the marketing mix and the third P from the four Ps examined is the promotional activities. Kotler & Armstrong (2013) mention five relevant promotional aspects: advertising, personal selling, sales promotion, public relations, direct and digital selling. As this thesis focusses on digital interaction platforms the two items personal selling and direct and digital selling were not examined.

1. Should the *advertising* of the product or service being offered on a digital platform only be made by the digital platform alone, the advertising authority was considered as to be strict (coded as 1). On the other hand, if the suppliers

also advertised their product or service via other channels and not just the platform, the advertising authority was considered as to be loose (coded as 0).

2. If *sales promotions* were only made by the digital platform and not the supplier, the item was considered as to be a strict authority (coded as 1). However, if suppliers had the opportunity to promote their products via other channels, the sales promotion authority was considered as to be loose (coded as 0).
3. Lastly, the responsibility of *public relations* was examined. If the platform was responsible for the public relations of the product and services offered, it was considered as strictly authoritarian (coded as 1). Should each supplier be responsible for the public relations of the offered products, the authority was considered as to be loose (coded as 0).

These three promotional items were summarized and standardized on a scale between 0, meaning loose promotional authority and 1 strict promotional authority.

Ultimately, the fourth and final aspect of the marketing mix was examined: place. Kotler & Armstrong define the following aspects relevant for place: Channels, coverage, locations, inventory, transportation and logistics.

1. *Channels/ coverage/ locations:* If the platform dominated the sales channels and locations where the product or service was offered, it was considered to have a strict authority (coded as 1). Should the choice of location be open to the supplier the authority was considered as to be loose (coded as 0).
2. If the supplier was responsible for the *inventory management*, the authority was considered as loose (coded as 0). Should the platform be responsible for the inventory management, the authority was considered as strict.
3. Lastly, the *logistics and transportation routes* were examined. If the platform was responsible for the logistics and transportation of a product or service, the authority was regarded as strict. If the supplier on a platform was responsible for the logistics or transportation, the authority was considered as to be loose.

In total eighteen items regarding platform authority were examined. A summary of the items can be found in the following two tables 3 & 4.

Table 3 shows the items used to determine the degree of authority of a platform. In total 18 items were taken into account. In uncertain cases, the items were not taken into account and not counted or added to the scale.

Table 3 Authority items

Overview of Items for authority

Item	Description
Product Variety	Who is responsible for the product variety?
Quality	Who ensures the quality checks?
Design	Who designs the product?
Features	Who offers further features?
Brand Name	Who brands the product?
Packaging	Who packages the product?
Services	Who offers further services?
List Price	Who sets the list price?
Discounts	Who sets the discounts?
Allowances	Who gives allowances?
Payment Period	Who determines the payment period?
Credit Terms	Who sets the credit terms?
Advertising	Who does the advertising?
Sales Promotion	Who does sales promotions?
Public Relations	Who does public relations?
Channel / Distribution	Who decides about the channel / distribution?
Inventory	Who takes care of the inventory?
Transportation / Logistics	Who does the logistics?

Table 4 shows the items used to determine the degree of access of a platform. In total 10 items were taken into account. In uncertain cases, the items were not taken into account and were not included into the scale.

Table 4: Access items

Overview of items for access

Item	Description
Technical standards	How hard is it to implement the technical standards?
Tools for promotion	Are there tools for promotion?
Integration	Can the platform be integrated into others?
Initial access costs	Are there initial access costs?
Selling costs	Do the selling costs hinder access?
Terms and conditions	Are the terms and conditions clear?
Search, filter & rank	Is the search, filter and rank clear?
Communication supplier-consumer	Can consumers and suppliers communicate?
Communication suppliers	Can suppliers communicate with each other?
Technical support	Is there instant technical support?

4.2.2 Results of the study access vs. authority

The collection of data was conducted by two independent management scholars from the University of St. Gallen. The data was consolidated and discussed.

In order to provide the reader with a better understanding a descriptive analysis of the data used for the regression analysis can be seen below on tables 5 & 6. All items taken into account for access and authority can be seen.

Table 5: Descriptive analytics of authority items

Descriptive data from authority items

Item	Mean	Std. Dev.	Skewness	Kurtosis
Product Variety	0.14	0.351	2.067	2.313
Quality	0.22	0.415	1.380	-0.098
Design	0.12	0.324	2.404	3.843
Features	0.09	0.291	2.850	6.229
Brand Name	0.34	0.474	0.703	-1.532
Packaging	0.5	0.502	-0.017	-2.034
Services	0.92	0.266	-3.251	8.716
List Price	0.34	0.477	0.663	-1.588
Discounts	0.35	0.48	0.623	-1.639
Allowances	0.32	0.468	0.785	-1.408
Payment Period	0.61	0.489	-0.472	-1.808
Credit Terms	0.65	0.480	-0.623	-1.639
Advertising	0.57	0.497	-0.292	-1.948
Sales Promotion	0.58	0.496	-0.328	-1.925
Public Relations	0.56	0.498	-0.257	-1.967
Channel	0.45	0.5	0.188	-1.999
Inventory	0.32	0.468	0.785	-1.408
Logistics	0.35	0.48	0.623	-1.639

Table 6: Descriptive analytics of access items

Descriptive analysis from access items

Item	Mean	Std. Dev.	Skewness	Kurtosis
Technical standards	0.23	0.421	1.321	-0.26
Promotion tools	0.58	0.496	-0.328	-1.925
Integration	0.63	0.485	-0.547	-1.731
Initial access costs	0.16	0.368	1.882	1.568
Selling costs	0.14	0.351	2.067	2.313
T&C	0.28	0.45	1.008	-1.002
Search/Filter/Rank	0.3	0.461	0.871	-1.263
Communication S/U	0.24	0.462	1.264	-0.409
Communication S/S	0.96	0.201	-4.624	19.712
Tech Support	0.13	0.333	2.282	3.263

After reviewing the descriptive results, a simple linear regression was calculated to predict the openness based on the authority, b = 0.81, t (119) = 3.14, p = 0.002. A significant regression equation was found (F (1,117) = 218,747 p < .001, with an R^2 of .652. A regression chart can be seen in the figure 18.

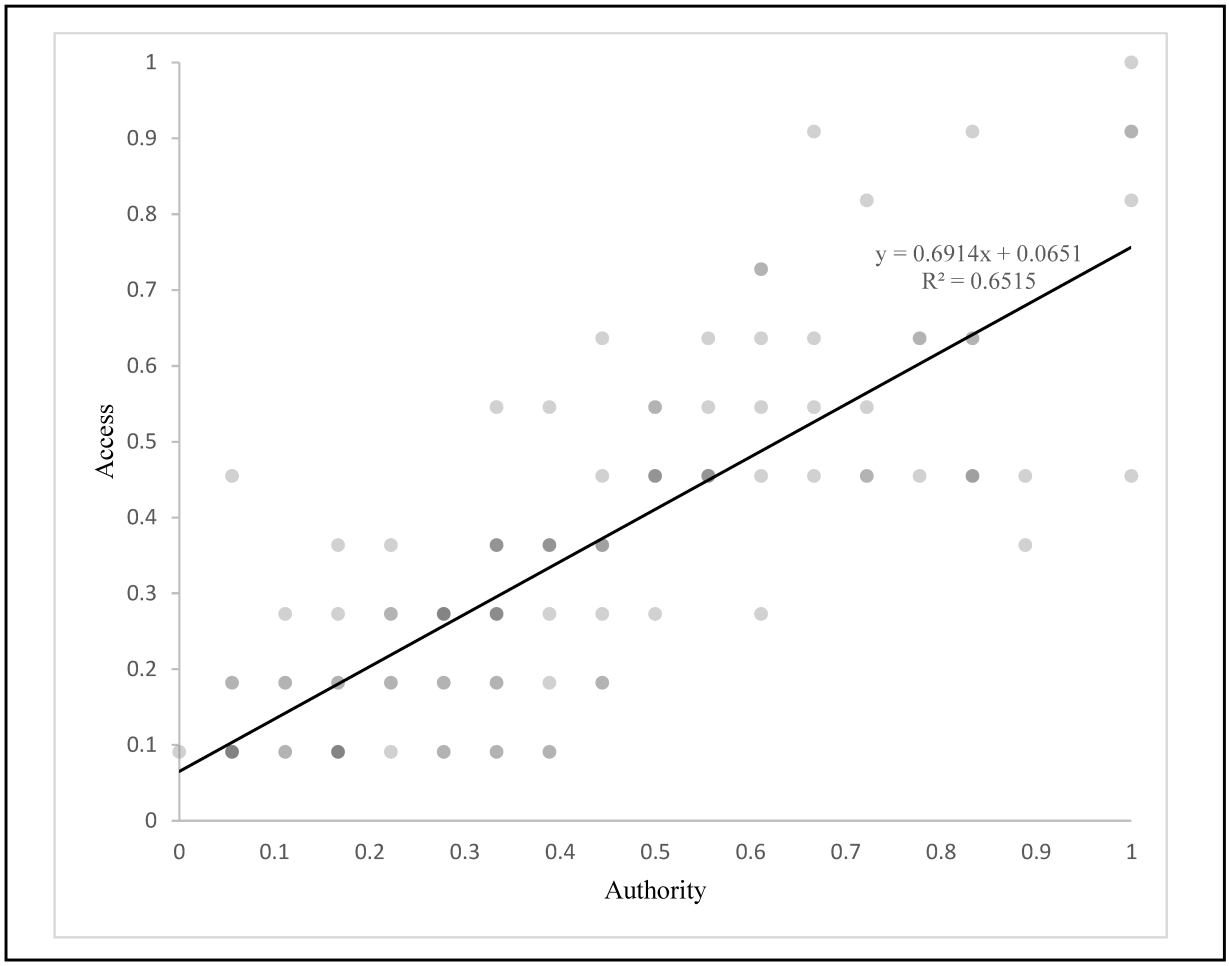


Figure 18: Regression analysis

As can be seen on the regression chart (figure 18) a trade-off between access and authority with the data set of 119 platforms under the defined scales can be shown. This finding indicates, that successful platforms have a balanced setting between access and authority.

In the following this trade-off was examined in qualitative interviews with digital platform owners and experts to understand the decision-making process and strategies for openness.

4.3 Study 2.2: Explorative insights from platform governance

As the data in study 2.1 suggest a trade-off between granting access to a digital platform and maintaining control over it. The following sections help provide a deeper insight into this trade-off. In-depth interviews with platform owners, platform users and experts were conducted in order to understand their decision concerning the value of control on the platform.

Because the existing literature on brand access and authority is not conclusive enough to provide a deep understanding of the trade-off, an explanatory qualitative research design was applied. The research design chosen is a single embedded case study (Bonoma, 1985; Yin, 2013a). Theoretical considerations, not statistical criteria are used to choose the specific cases and a variance in cases is necessary in order to reveal the underlying relationships (Eisenhardt, 1989; Eisenhardt & Graebner, 2007). As the main research of this study is to understand if and how the trade-off between access and authority works, multiple platforms with different access and authority values from the existing scale were chosen. Also, platform experts were interviewed to provide their opinion on the trade-off.

4.3.1 Methodology and case selection

Case selection platforms

Prior to the case selection of the platform companies, each firm was evaluated on the existing access vs. authority scale. Furthermore, as the topic of openness is fundamental for the success of a digital platform and highly strategic (Hagiu & Wright, 2015a), the author selected the interviewees based on their capability to decide on the degree of openness of the platform. Consequently, either product managers or CEO/ CMOs were interviewed and had the possibility to adjust their position on the access vs. authority map (as can be seen in figure 15).

Case selection experts

The experts were chosen based on their publications regarding the topic (white papers, academic journals, conference articles etc.). A mix of academic professionals and industry experts was identified.

According to literature on case study research, there is no pre-defined number of cases which have to be examined in order to obtain valid results (Glaser & Strauss, 1967). It is more important that theoretical saturation is reached, which means that further interviews would not yield more results or only incremental insights. Overall platforms from various different industries (retail, insurance, mobility, healthcare, services etc.) were chosen. Also, the size of the companies varies from local start-up to global incumbent players. However, all of the cases own a market intermediary platform business model. In the following an overview of the different cases is presented on the graph.

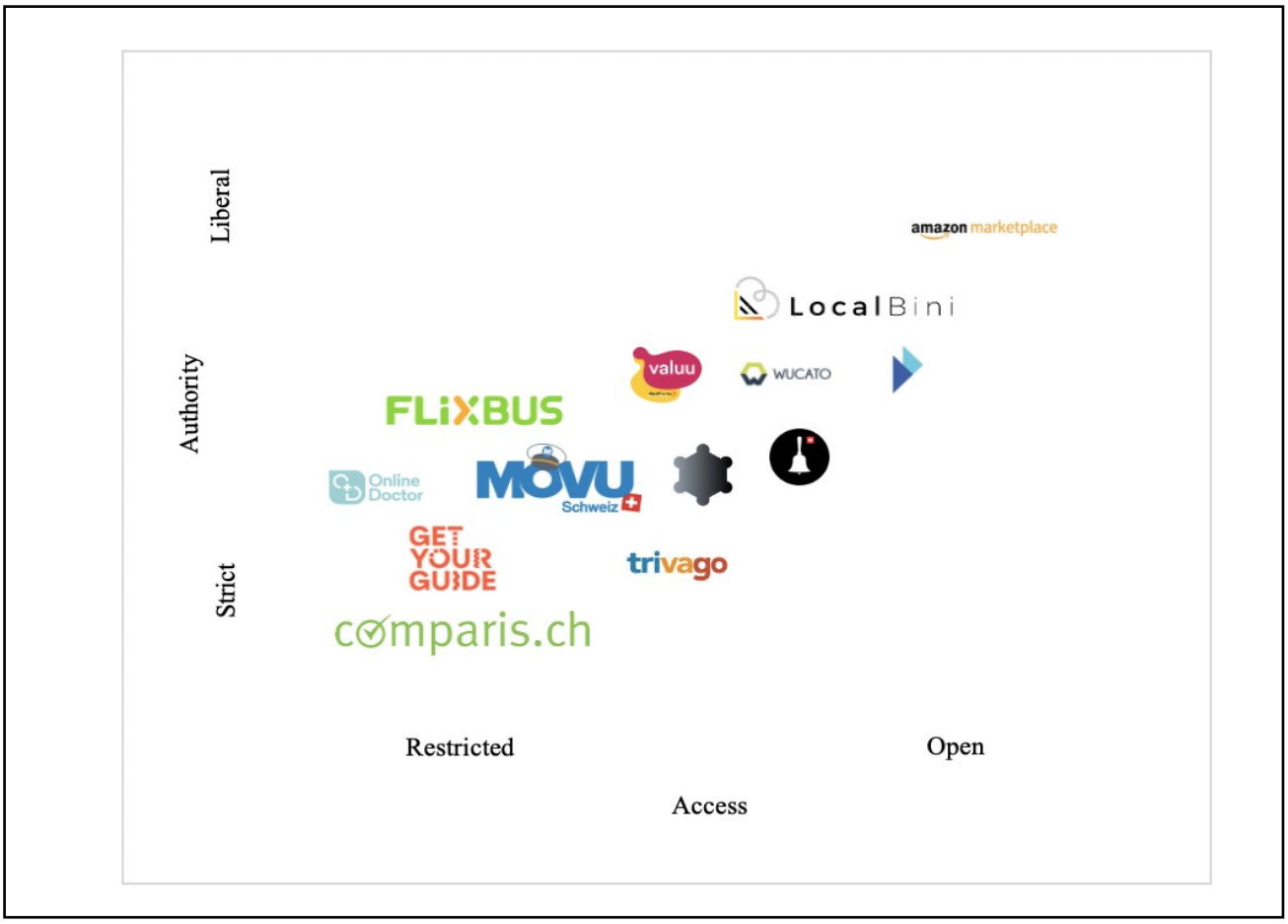


Figure 19: Overview of companies examined

In order to thoroughly understand a case, multiple data sources have to be analyzed. Data from various external and internal sources were obtained and combined with in-depth interviews. It is essential for case study research to triangulate the data to ensure construct validity (Gibbert & Ruigrok, 2010). The qualitative in-depth personal interviews were conducted in order to understand how digital platforms deal with access and authority. In order to obtain strategically relevant information, the decision makers of digital platforms were interviewed. Further, experts who were not owners or working with digital platforms, were asked regarding the topic to provide both an internal and external views (Eisenhardt & Graebner, 2007). In addition, further data, such as internal reports, whitepapers, presentations were included in the qualitative research.

4.3.2 Data collection

Data collection consisted of three steps: *First,* the author conducted the in-depth interviews with decision makers of digital platforms. Initially interviews were undertaken with marketing managers or sales representatives. However, as the topic of access and authority is highly strategic no insights could be generated. Thus, the author focused on interviewing decision makers on digital platforms. *Second*, external experts were interviewed and introduced to the trade-off. *Third*, a collection of white papers, presentations, reports were collected from both the experts and platform owners.

All interviews were either conducted on the phone or face-to-face. The first wave of interviews was conducted between May and July 2019. The second wave of interviews was conducted between November 2019 and January 2020. In total 37 interviews were conducted, 25 with managers from digital platforms and 12 with external experts.

A general interview guideline was followed, in order to ensure that all relevant information was covered in the interviews. The rough guideline was split up into seven sections (see Appendix): First the interviewees had to briefly introduce themselves and explain their understanding of what a digital platform is (1). Then the participants were asked about the authority of their platform, based on the 4 Ps (2) and access based on a simplified version of the scales used in the previous study (3). In the next steps the participants were asked to talk about the trade-off between access and authority (4). Finally, they had to summarize what their value proposition is for suppliers (5) / customers (6) and explain how their platform differs from competitors (7).

To ensure flexibility in the answers, the interviews were conducted open-ended (Mayring, 2000) After each interview, desk research was conducted to validate the obtained information and to reflect on the observations throughout the interview (Yin, 2013b). An inductive coding approach was used to process the interviews (Ridder et al., 2014). The coding of the qualitative data was done using the software Atlas.ti. After analyzing each case individually, the author compared and matched the different cases.

Some citations were translated by the author, as some of the interviews were held in German. In the following charts a list of interview partners is shown.

Table 7: List of external expert interviews

Overview of the external informants

Expert Background	**Number of Interviews**	**Function**
Venture Capital	5	(E1) Associate (E2) Associate (E3) Analyst (E4) Principal (E5) Partner
Consultancy	3	(E6) Consultant (E7) Engagement Manager (E8) Project leader
Academia	2	(E9) Associate Professor (E10) Full Professor
Corporate	2	(E11) Innovation Scout (E12) Head of Partnerships
Total	**12**	

Table 8: List of platform expert interviews

Overview of the platform informants

Platform	**Number of Interviews**	**Function**
Amazon	1	(P1) Product Manager
Batmaid	2	(P2) CEO (P3) CMO
Chemondis	1	(P4) CEO
Comparis	2	(P5) Product Manager
Feather	3	(P6) CEO (P7) Head of Insurance (P8) Marketing Manager
Flixbus	1	(P9) Product Manager
GetYourGuide	1	(P10) Product Manager
Heyconnect	1	(P11) CEO
LocalBini	1	(P12) CEO
Movu	2	(P13) CMO (P14) Marketing Manager
Movinga	1	(P15) Product Manager
OnlineDoctor	2	(P16) CEO (P17) CMO
ParcelPerform	2	(P18) CEO (P19) Head of Marketing
StudySmarter	2	(P20) CEO (P21) Head of Marketing
TooGoodToGo	1	(P22) Product Manager
Trivago	1	(P23) Director
Valuu	1	(P24) Product Manager
Wucato	1	(P25) CEO
Total	**25**	

4.4 Findings

4.4.1 Findings study 2.1

The results of the case study will be split into two parts. In the first part, the quantitative results from study 2.1 will be combined with the qualitative data from study 2.2. In the second part the results from the explorative part of the interviews will be discussed. Afterwards an intellectual framework putting the results into context will be deducted from both studies.

After discussing the trade-off between access and authority with both platform owners and experts, the results had remarkably consistent patterns. Three main reasons were repeatedly mentioned why trade-offs exist: Quality control, technological integration and supplier segments.

Quality control: One interviewee summarized the trade-off as follows: “As a platform we have to ensure that both, end-customer and supplier are happy with their interaction. Whenever you lower the standards for suppliers to join, you have to control the suppliers more, as the probability of low-standard suppliers will increase.” (P, 12) The interviewees also agreed on the fact that multiple platforms can co-exist with different degrees of openness. One example is the tourism guide platform LocalBini vs. GetYourGuide. Both match tourism guides and tourists for city tours. On the one hand, LocalBini is a series A funded start-up based in St. Gallen and tries to compete with the unicorn GetYourGuide from Berlin. The CEO of LocalBini claims that they can co-exist with GetYourGuide as they are restricting the access of guides on their platform by doing consistent quality checks. On GetYourGuide everyone can sign up without any quality check. LocalBini has interviews with all their suppliers / tourist guides. However, GetYourGuide is stricter regarding the quality checks. Should a tourist guide receive multiple negative reviews, they will be banned. LocalBini trusts their suppliers even if they should receive a negative review (P,12). A similar example is the case with the company Batmaid. The Lausanne based platform matches cleaning personal with customers. Batmaid claims, that they can co-exist next to the larger, more funded helpling from Berlin, which also offers this matching service (P, 2 & 3). Their screening

process of the cleaning personnel is more rigorous and Batmaid even helps with the application for Swiss visas. “We actually have a blog and help centre for EU cleaning personnel who wants to move to Switzerland. Also, we have trainings and outfits for our Batmaids. Customers can not book a specific cleaning lady but book a Batmaid – on helpling you can choose your specific cleaning personnel. We want a consistent Batmaid customer experience. In order not to damage our brand we have more quality checks.” (P, 3).

However, one expert believed that there wasn’t a trade-off in his specific sector (P, 9). The mobility platform Flixbus has a rigorous application process (access) and strict guidelines for the usage (authority). “We are strict regarding who joins our platform and we are strict regarding the rules when joined” (P, 9). Hence in this case there is no trade-off between access and authority.

Lastly one expert claims, that on their platform they have different offerings adjusted to the customer needs. Movu has different products with different degrees of openness. Their degree of openness ranges from a simple listing of moving companies to a fully integrated booking system. “Our goal is to digitalize the moving business. Our partners have the possibility to purchase a complete digital package or merely list themselves on our platform. Should a customer book via our booking system on the platform we receive a higher provision. However, customers know, that the companies listed online are checked by us regarding trustworthiness – a very important factor in the moving business.”

From a branding perspective it is crucial to communicate the suggested quality of the product for both the supplier and the consumer. Platforms can leverage branded suppliers to suggest a certain level of quality for their consumers. Quality assurance can be done through onboarding brands.

In summary, digital platforms have to ensure that the quality of suppliers is sufficient and have two possibilities to do so (1) quality checks before a supplier joins a platform or (2) quality checks when the suppliers are on the platform. Often platforms with a

strict quality check before onboarding want to establish a platform brand. Finally, some experts believe that in the future through artificial intelligence and advanced analytics platforms will be able to automatically eradicate low-quality suppliers (P, 1).

Technological integration was also mentioned as a reason why this trade-off between access and authority has been observed. “Our MVP was merely listing all offerings online and linking to other websites, however over time we started digitally integrating the processes of our partners more and thus had more control over the terms and conditions / authority of the platform” (P, 4). Another interviewee summarized the issue as: “The more digital our platform was becoming, the more difficult the integration for our partners was becoming.” (P, 25). Often digital platforms digitalize existing industries. However, this digitalization process takes time. Some platforms even list their suppliers without the knowledge of the supplier (P, 23). For example, Trivago lists the offerings of hotels in some cases without the knowledge of the hotel. Furthermore, the expert explained, that especially small businesses or boutique hotels have problems with the integration from a technological perspective. In some cases, platforms were offering novel products and services, such as OnlineDoctor: The Zurich based platform matches dermatologists and patients via smartphone (telemedicine). If you are a dermatologist, the access on the platform is easy and fast. However, OnlineDoctor has a strict authority and for example sets all consultations at a fixed price and commission rate (P, 17). Finally, multiple interviewees agreed that the higher the degree of integration between platform and supplier, the more control the platform has and the higher the price the platform can demand for the product and services the platform offers (P, 18; P23). The more technologically the supplier is integrated, the more dominant the brand of the platform can become. Platforms often can start as mere technology providers and then evolve and build their brand around the offering. Also, all interviewees agreed that the technological integration had to be seamless and as frictionless as possible.

Supplier segments: Lastly the experts claimed that different supplier groups were more or less open with partnerships and collaborations with digital platforms. “Some

companies want control where their products or services are listed" (P, 6). Whenever a supplier joins a digital platform, they gain an enormous reach one the one hand, but on the other they are directly comparable to other suppliers. If suppliers for example have a strong product brand, they want to be sure that they are only listed next to other strong product brands. "Strong brands expect a curation done by the digital platforms. Burberry would never want to be listed next to – let´s say - Kick." (P, 11). However, external industry experts say that through advanced personalization methods platforms will be able to focus on different supplier segments simultaneously. Another strategy seen in practice is multiple platforms owned by a single company. Alibaba for example owns the platform Alibaba.com and the platform Tmall.com. On Alibaba.com suppliers can list their products and offerings under strict conditions. The application process to become a merchant on Alibaba is highly automated. However, on the other platform Tmall.com, companies have the possibility to design their own company appearance on the Tmall website. Tmall closely screens companies during their application, however once successful, companies have the authority to design their appearance and customer experience on the platform.

In summary the qualitative results support the hypothesis that there is a trade-off between access and authority. In the next step the author will deduct a classificatory framework and further explain findings from the explorative qualitative interviews.

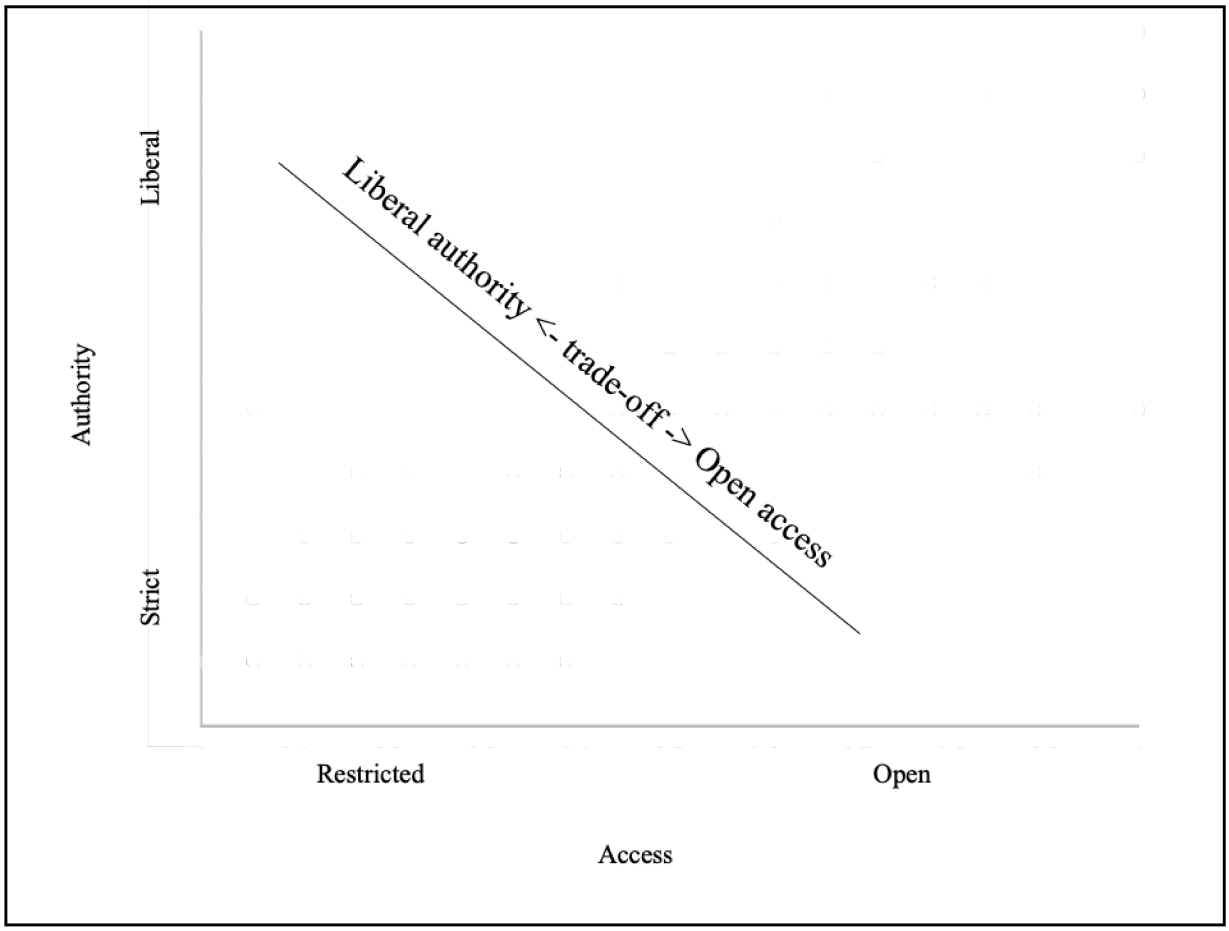


Figure 20: Trade-off between access and authority

Lastly the author proposes a *Categorization of digital platforms.* In general, there are three different types of digital platforms (E,7; see also Breinlinger 2016). The first type of platform are double committed marketplaces, the second are buyer-picks marketplaces and the third are supplier-picks marketplaces.

Double committed platforms are platforms where both customers and suppliers have to manually agree on working together. Examples are oDesk or GetYourGuide. The curation is done by the users. This approach means that the matchmaking process is outsourced to the users. The advantage is that users can communicate with each other to be more flexible in the specific product offering. Nevertheless, the main disadvantage is that resources can be "wasted" on the matchmaking process. Customers can be frustrated with the waiting time for the commitment from suppliers. On the other hand, (high quality) suppliers can become frustrated with the complex process and subsequently leave the platform.

Buyer-picks platforms are platforms where suppliers enter their availability and customers can book products or services without the commitment of suppliers. Examples are TreatWell, the online booking system for beauty services or BookaTable the online booking system for restaurants. The advantage of this model is that the search and matchmaking process is more convenient for customers. The disadvantage of this model is that suppliers have to keep their availability up to date. Often suppliers with little revenue from a platform tend to not update their availability. Also, suppliers can be hesitant to join buyer-picks marketplaces, as they fear losing control over the utility of their assets (hotels often don't want to join online booking platforms because they fear the high dependency).

The third group of platforms are *marketplace-chooses platforms*. On this type of platform buyers request a service and are automatically matched to the suppliers. Practice has shown that the degree of standardization / commoditization has to be high on these platforms. Examples are UBER or the translation platform Rev. The advantage of this type of platform is the user experience for customers with the automatic matching process. Furthermore, algorithms can automate and improve the matchmaking process. An overview of the three platform types can be seen in the table 9.

Table 9: Categorization of digital platforms

Matchmaking functions of digital platforms

	Double committed	Buyer picks	Marketplace picks
Example	- oDesk - GetYourGuide	- TreatWell - BookaTable	- UBER - FlixBus
Branding	- Supplier - Platform	- Supplier - Platform	- Platform
Advantage	-Flexible products	-Convenient matchmaking	-Automated matchmaking
Disadvantage	- Resources wasted on matchmaking	- Supplier distrust	- Complex quality control
Standardization of product	Low	Medium	High

Based on interviews and Breinlinger (2016).

4.4.2 Findings study 2.2

After identifying both with qualitative and quantitative data that a trade-off exists between access and authority in the study sample, the author will now explore results from the qualitative interviews. As can be seen in the Appendix, the interviewees were told to explain their strategies which lead to a successful implementation of a digital platform.

Launch Strategies

One of the factors, which nearly all interviewees agreed on, is that a mere listing and matchmaking function without any other form of value creation is not sustainable for digital platforms. One expert claimed that "There are two ways to build a platform which captures value. One is start with few suppliers, integrate these well and gradually grow. The other is start large with little integration. After that it's basically a race to who has the best and most integrated suppliers" (E, 4).

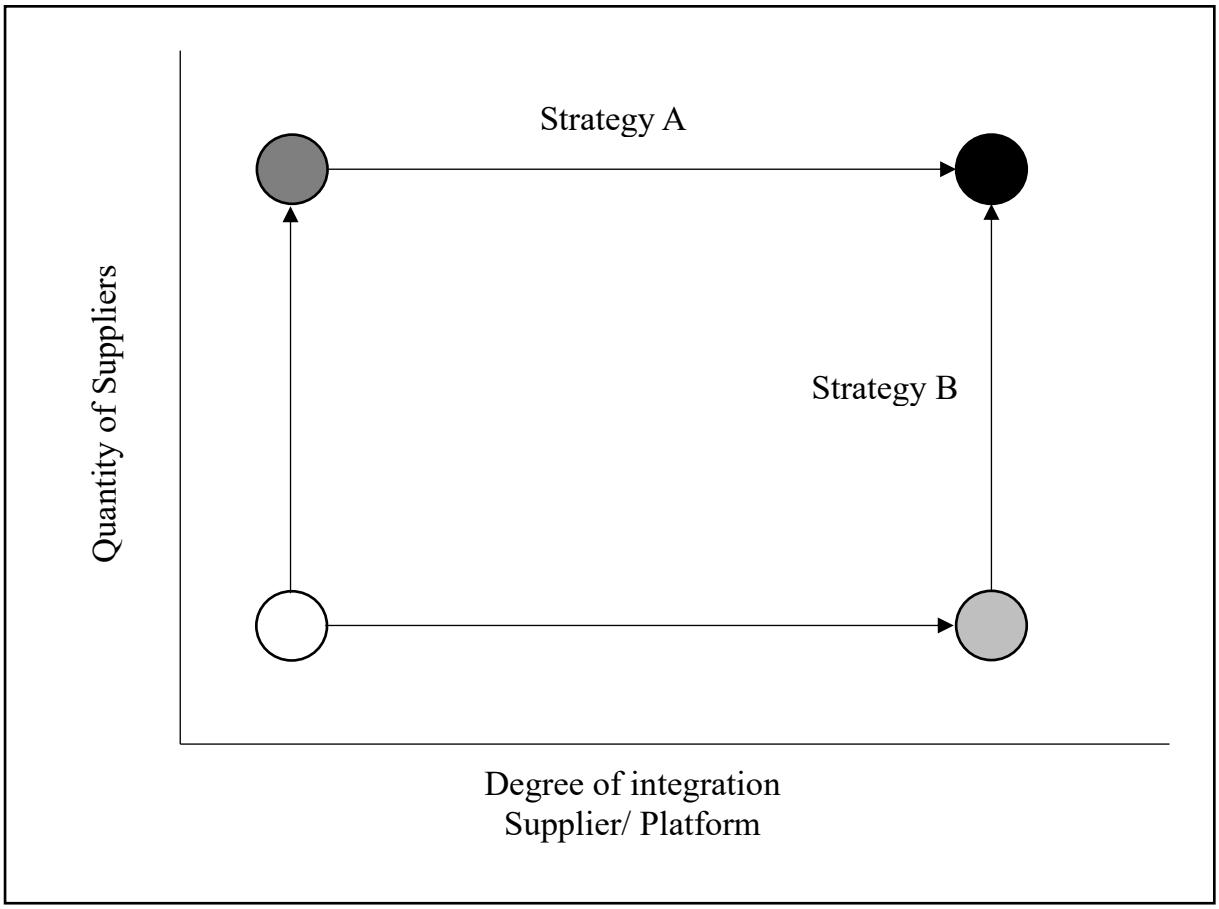


Figure 21: Strategies for building successful platforms

As can be seen in figure 21, Strategy A, starts with a large quantity of suppliers, however, little degree of integration exists. Hence the product the platform is offering to the market participants is largely to increase transparency in their market. LocalBini, eat.ch, book-a-tiger and multiple other booking platforms started by listing such offerings. However, in order to capture more value and create a larger bondage with the suppliers, the platforms started adding further functions to be integrated with the supplier. LocalBini offered a payment function, book a table created a restaurant management software on top of their platform. Some suppliers are even listed on digital platforms without their knowledge. This is only possible on platforms which have little to no technical integration (such as rating websites e.g. Yelp.com). This strategy is especially successful in highly fragmented markets where there is little transparency. Strategy A relies on easy accessing multiple strong brands in the market and leveraging these on a few touchpoints. From a brand management perspective this makes sense when the market has multiple different segments with different brand strengths. Potentially the costs of branding are higher than in strategy B as the main value add for the customer is market transparency and not an enhanced experience.

Strategy B on the other hand starts with highly integrating a much smaller number of suppliers. The idea behind this strategy is to first build the technical infrastructure for a successful platform and then scale the quantity of suppliers. The insurance comparison website Feather does so: “We internally discussed the options of listing all insurances on our portal. However, there was so much competition in this sector, as everyone was focusing on the quantity of suppliers. We then decided to turn things around and focus on the quality of the integration. We focused on a few insurance companies and deeply digitalized and integrated their system with ours. On the way we learned a lot and now will start to scale.” This strategy can be especially successful in markets where existing players are creating transparency but not yet have digitalized and in markets which are not yet digital. From a branding perspective, platforms relying on strategy B should choose their initial brand partners wisely. Ideally platforms can build upon strong brands and use their strength to push the platform.

In summary the goal of digital platforms is to have a large quantity of suppliers which are deeply integrated into the platform system. Two strategies have evolved to reach this point – focusing on multiple suppliers and then gradually integrate these vs. focusing on few suppliers however integrate these well and later scale the amount. Platforms should also decide whether to build on few brands and enhance the customer experience for the brand or build on many brands to create customer value through transparency.

Innovation

Regarding product innovation, many experts believe that their platforms are “not just matchmakers but innovators” (P, 23). In general, the interviewees described three main innovation types: customer innovation, supplier innovation and technological innovation.

Technological innovation: OnlineDoctor claims that their dermatology company is only successful as they have created a new product which fulfills the job to be done better than any existing product. Normally should you have a medical problem with your skin, you would physically have to go to the doctor. However, with the dermatology app OnlineDoctor you can send your doctor a picture via the app and get feedback within 24 hours. “We have a novel product which solves dermatology cases with a 94% accuracy.” This platform created a novel product which until now did not exist in the market.

Customer innovation: TooGoodToGo claims that they have created an innovative offering for restaurants by enabling them to sell the left-over meals via an online platform. This way existing suppliers expand their customer group. Another example is Zalando, which offers small local brands like Madeleine to sell their products in Europe. New customer groups are made accessible for existing suppliers.

Supplier innovation: GetYourGuide has created a new segment of suppliers, which before did not exist. Through the easy accessibility, everyone can become a guide in their local city. Most gig economy companies use this approach to scale quickly and cheaply. Supplier innovation is especially successful when unused assets can become suppliers, as in the case with UBER, where privately owned cars become “taxis” or Airbnb where privately owned accommodations turn into “hotels”.

One expert summarizes the innovations as “some platforms are successful by creating new sources of supply, like GetYourGuide, or new sources of end consumers for suppliers, like TooGoodToGo.”

These findings can be seen in figure 22. Platforms can add value by either bringing technology to an existing market, add further customer segments to suppliers or bring new suppliers to customers. These three factors are not exclusive.

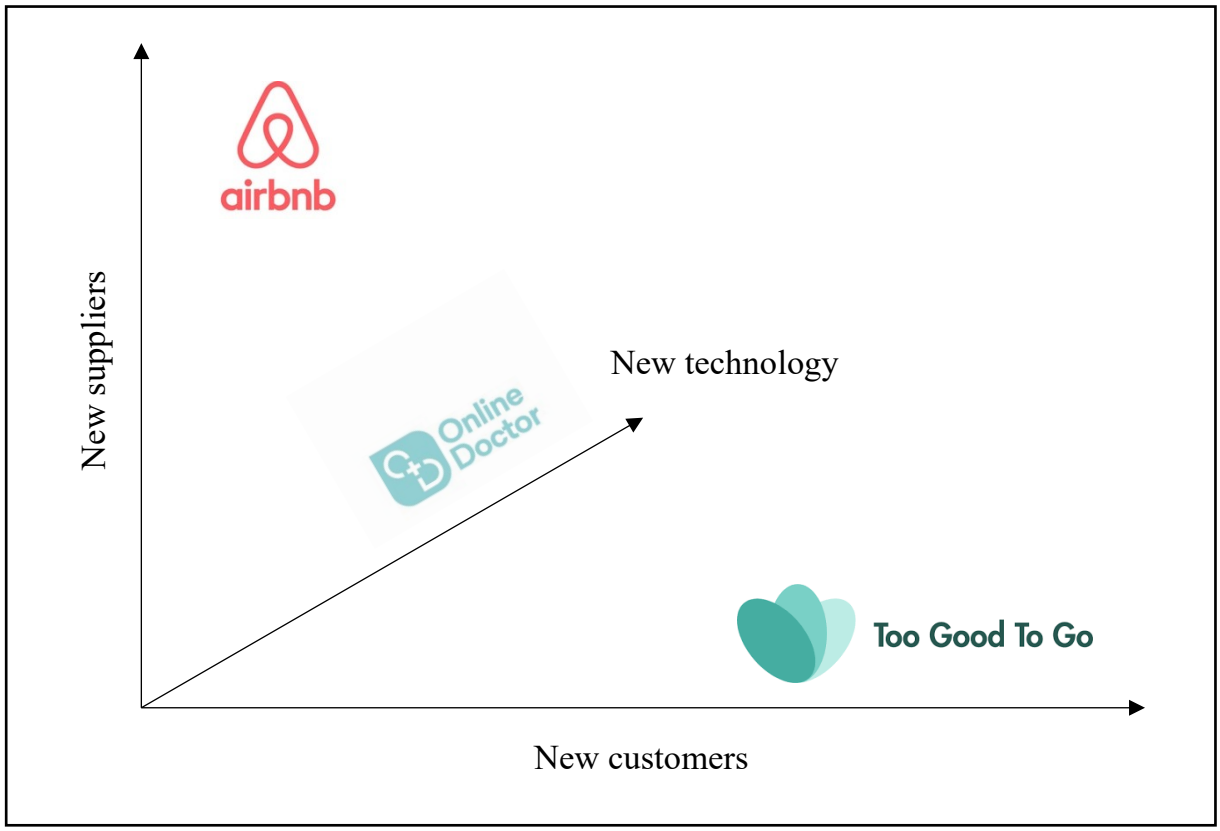


Figure 22: Competitive edge of platforms

Regarding the product features the more mature and larger digital platforms claimed that every feature which was added to the platform was internally discussed on a make or buy basis. “If we want to add something new to our service, we first take a look into the market who is currently doing it best. Then we evaluate if we should partner or create ourselves”. FlixBus for example wanted to build a full innovation ecosystem around their mobility offer. They often collaborate with other start-ups, which for example offer snack boxes on the journeys. Also, Movu, the moving company, has added an insurance feature from the Baloise insurance to their service. Baloise is a trustworthy insurance from Switzerland. One expert explained that platforms from their company culture are more open for collaborations: “Traditional companies have a very competitive mindset, however the younger platform companies have collaboration in their DNA. They are

much more flexible and open for collaborations which improve the product." (E, 6). However, it is important to highlight that incremental features of the user interface are all controlled by the platform. For example, the app design and usability is fully controlled by the platform owners. Lastly platforms are in constant exchange with their end customers and suppliers about which features can be added to a platform in order to increase its performance. In some cases, features from platforms can envelop other platforms. For example, this was the case, when AirBnB decided to add an "experience" feature to their offering. The experiences´ market however was previously dominated by GetYourGuide. "Certain features can be a make or break for platforms. In any case it is the key intention to keep both customers and suppliers happy" (E, 9).

Touchpoints & customer journey

Touchpoints are considered as any "episode of direct or indirect contact with the brand". (Baxendale et al., 2015, p. 236). Lemon and Verhoef (2016) distinguish between four types of touchpoints: brand owned, partner-owned, customer-owned and social / external touchpoints. The sum of touchpoints is considered as the customer journey (Mulder & Vetvik, 2009). Lemon and Verhoef (2016) also distinguish between three different phases on this customer journey: pre-purchase, purchase and post-purchase. Digital platforms act as a thin digital layer between suppliers and customers (Frankenberger, 2020) so they have the possibility to own or partner-owned touchpoints with their suppliers.

The interviewed experts agree that digital platforms can evolve at any phase of the customer journey. Platforms which act before the purchase of a product often are comparison websites, such as check24.de or comparis.ch. Often these platforms combine post-purchase experiences for pre-purchase customers (e.g. reviewing of restaurants on tripadvisor etc.). Also, the ownership of the touchpoints can differ. Touchpoints on digital platforms can be co-branded, platform branded, or supplier branded. Madeleine a clothing company from St. Gallen collaborates with the clothing platform Zalando. However, as they consider their products as premium, they want to be able to package their products in Madeleine boxes and not Zalando boxes. Hence the

purchase touchpoint is co-owned with Zalando, however the post purchase touchpoint – the packaging – is owned by Madeleine.

Two different approaches have evolved regarding the touchpoint management of digital platforms: Platform of brands vs. branded platform. The platform of brands is a digital platform which profits from the brands of their suppliers (such as Zalando, myTheresa.com, Check24.de). On the other hand, branded platforms exist, which do not profit from the brands of the suppliers, however, have complete control over the customer journey and supplier management.

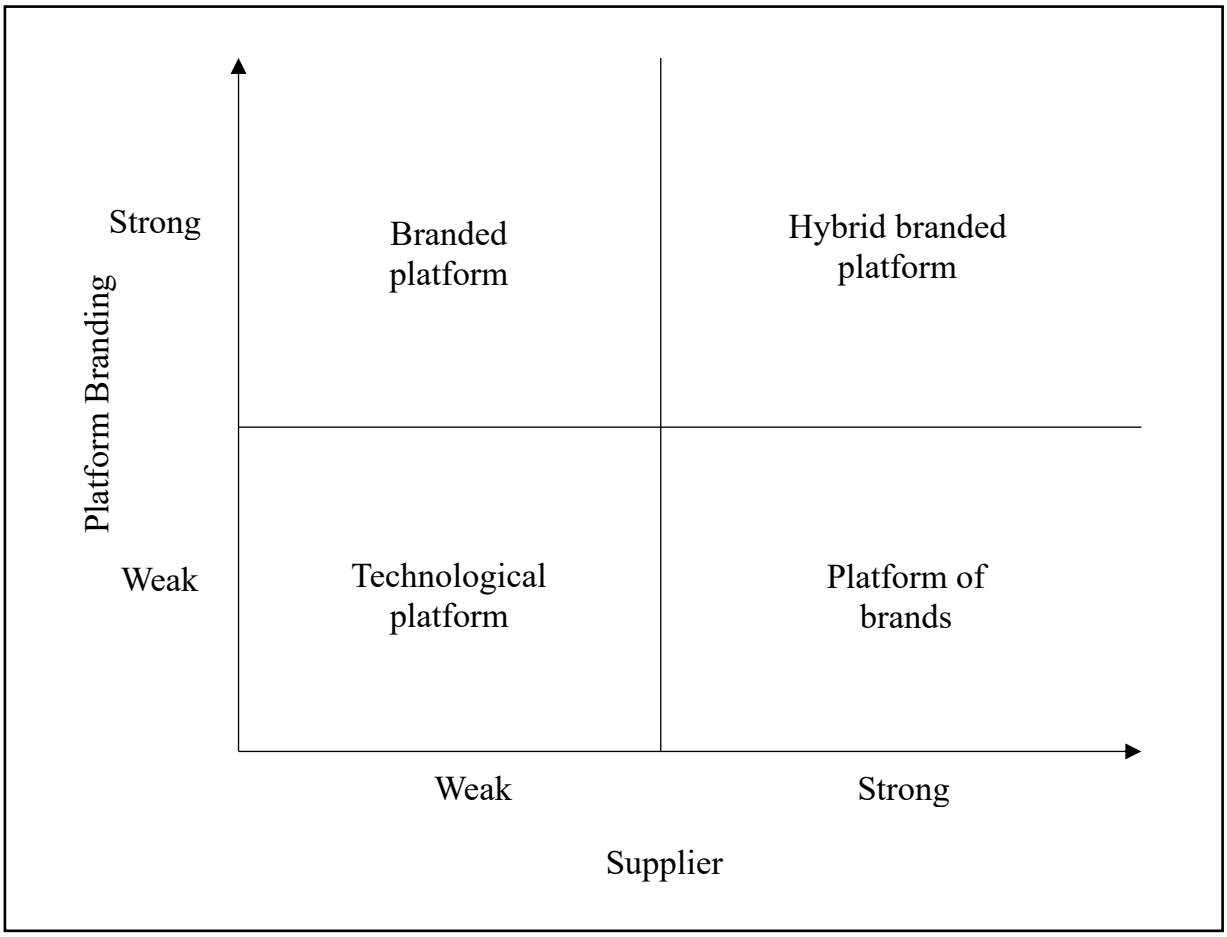


Figure 23: Platform and supplier branding

Supplier needs

Both experts and platform owners agreed on two main reasons why suppliers join digital platforms: either to obtain a new technology or to obtain new customers or both. These factors are not mutually exclusive. Some platforms grant access to new customers and new technology. Often innovations in technology can lead to new platform business models. Without the introduction of GPS on smartphones the ride-hailing app UBER would not have been successful. In general, the rise of the internet has led to the rapid growth of this business model. “At Wucato some customers and suppliers approach us in order to build the digital booking solution for them. We then integrate the suppliers. Interestingly the customers stay at their existing supplier but only use the online ordering function of Wucato”. As can be seen in the Wucato case, platforms sometimes don’t create new connections, but merely digitalize existing ones. In the following figure the different motivations of suppliers to join a digital platform are shown.

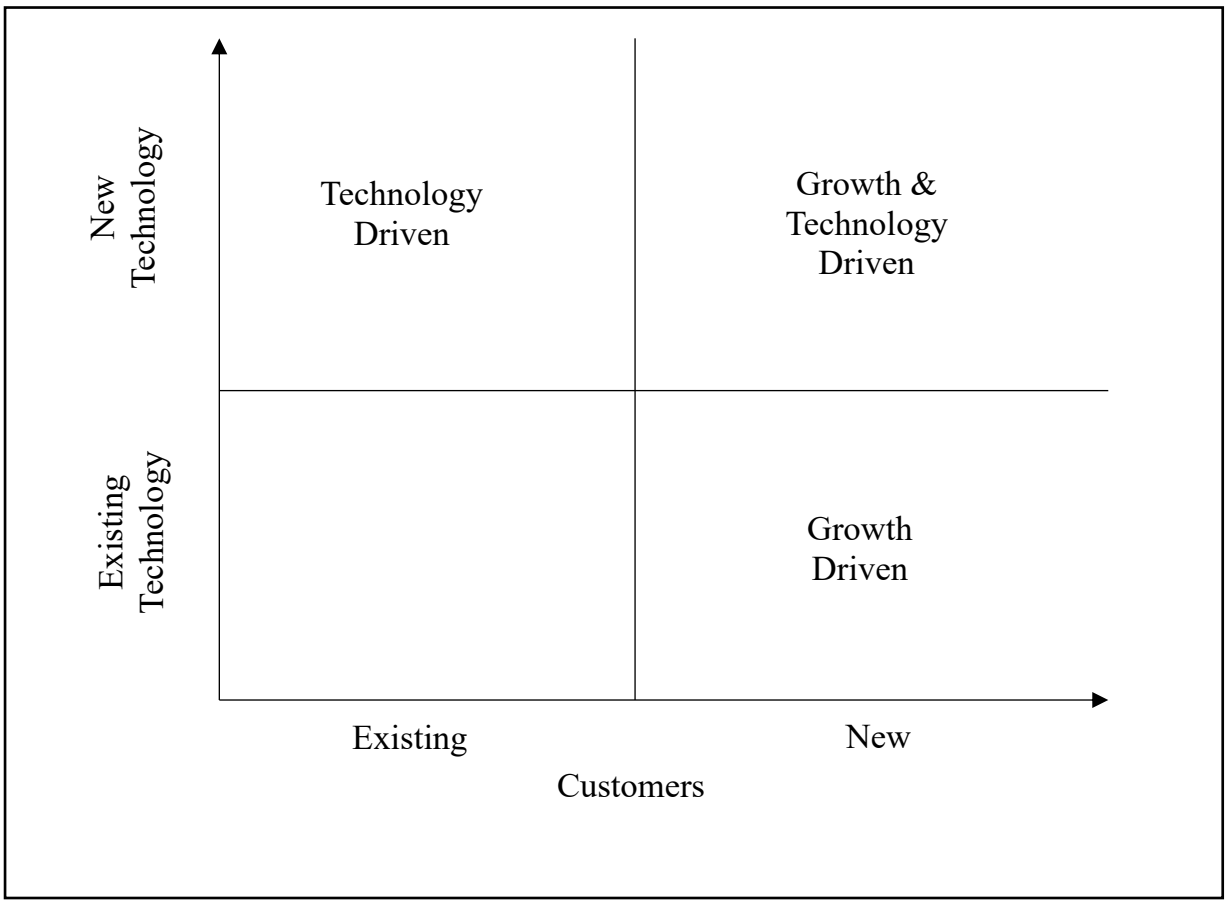


Figure 24: Supplier incentives to join a digital platform

Customer needs

When asked which customer needs digital platforms fulfill, the answers were diverse. “The main pain point for customers to be solved is transparency”, claims a comparis product manager. Transparency for customers can mean supplier transparency (which suppliers offer what) and/or price transparency. Platforms reduce search costs for customers by listing many offers from different suppliers on their website. Another customer need from platforms is convenience. Especially booking platforms, such as trivago, enable an easy to use online booking system. “Many customers prefer not having to talk to sales representatives or insurance brokers as they know exactly which product to purchase. We have a full digital service which is [more] convenient, than snail mail and commission greedy salespeople.” Feather claims that other platforms may be better at offering product transparency, however their system offers more convenience.

Transparency is based on the previously mentioned network effects. The more suppliers are listed on a platform the larger the transparency value for the customer. However, convenience is not based on network effects alone. Platforms can have a competitive advantage over suppliers and other platforms by supplying a better user interface and more seamless customer experience. Experts (E,8; 9) believe that the customer experience is one major advantage of digital platforms over traditional suppliers, which follow a direct to consumer model. Digital platforms focus directly on the customer experience, where traditional suppliers fall short. For suppliers to stay competitive they have to create digital customer experience. Lastly platforms are more successful to cross-sell and up-sell other products, as they have a larger product offering profile and a bigger consumer-based data collection available than traditional non-platform-based companies.

Platform tasks

When asked which tasks digital platforms can perform, six main functions of digital platforms were mentioned by subjects interviewed, which will be elaborated below.

First digital platforms main purpose is to offer clients the products or services they are looking for (1). This is the most obvious function of a digital platform as that is what a

digital platform is made for. Second experts mentioned controlling of the goods and services which are offered on the platform (2). The experts do see an increasing demand in this sector in the coming years. As the third important role for digital platforms was considered the promotion of products (3). Some platforms, for example the online marketplace wish, offer a fully integrated marketing function of the products (e.g. via Facebook marketing). Also, all large platforms (Zalando, Alibaba, Amazon) offer retail media. Retail media constitutes the possibility for suppliers to market their products on the digital platform. Often retail media is a further welcomed revenue stream for digital platform. Fourth, digital platforms offer further add on services to the suppliers (4). Amazon, for example, has an Amazon marketplace service team, which helps key account owners to place and promote their products via Amazon. Flexible payment facilities are another example of service platforms offer to suppliers. These are important additional options which further contribute to the highly profitable service sector. The fifth task which platforms can offer is the ability to sell the service included with the products (5). For example, the purchase of a piece of furniture can include the build it up service at home. And the final task a platform can provide is the business intelligence (6). Business intelligence is the measurement and controlling of the success of products and services on digital platforms. A summary of these six platform tasks described above can be found in figure 25. After having summarized the results from the explorative qualitative study, the author will now value the theoretical contribution of the studies.

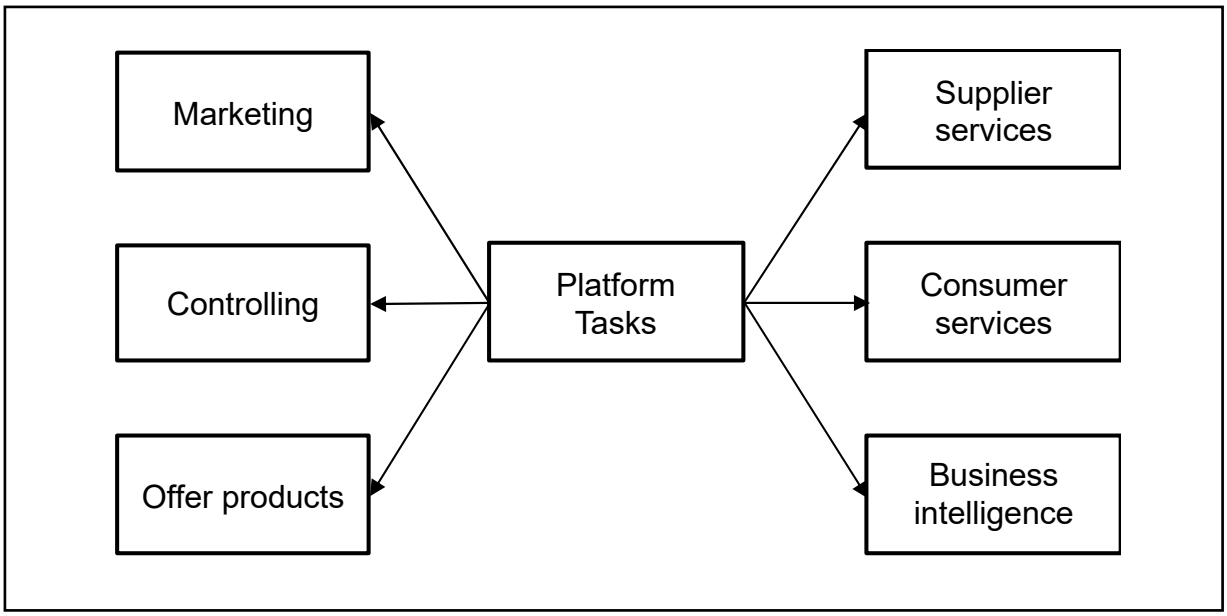


Figure 25: Platform tasks

4.5 Managerial implications

After describing theoretical implications of the qualitative and quantitative study, the author will now describe the managerial implications and derive a framework for successful partnerships between digital platforms and their suppliers.

The managerial implications for digital platform managers are subdivided into three phases along the path of the platform development seen in figure 26. The first phase represents the development and launch of the digital platform, the second phase the growth and the final phase with the maturity of the digital platform.

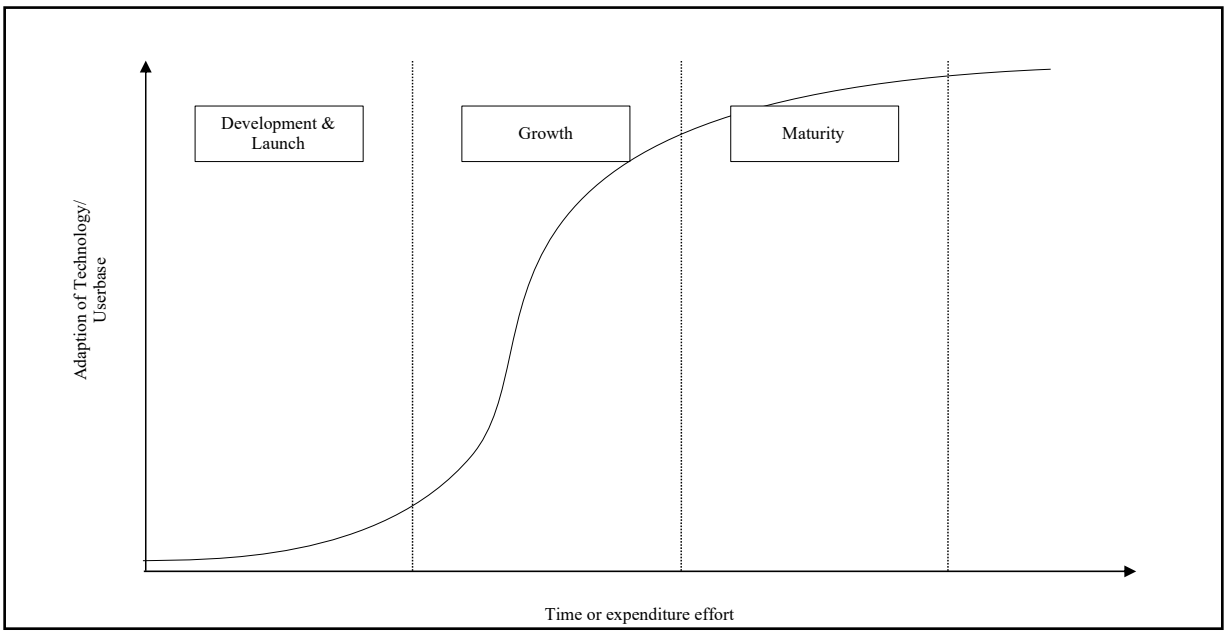


Figure 26: Development stages of digital platforms

Based on Taylor and Taylor (2012)

Phase 1: Development and launch

Development and launch of digital platforms are considered the strategically most important phase for the success of a platform (Hagiu & Wright, 2015a). In the following the author will propose a “blueprint” or classificatory framework on success factors for platform launch and development.

The first decision managers have to take when building a digital platform is, which market a platform has potential in. As shown in 4.4 markets which are fragmented, in-

transparent or non-digitalized are prone to digital platform disruption and therefore ideal for platform launch. Trivago succeeded under these circumstances by bringing transparency into the travel industry. Treatwell, an online booking service for beauty care, could grow rapidly, as they added a new technology into an existing market. Wucato, the online marketplace for nails and screws, owned by Würth, could add value by consolidating a fragmented market. However, markets which have strict regulations or where only few players act, have been shown to be resistant to platform disruption (E4). Also markets where the intensity of assets is high have shown to be resistant to digital platforms as well (G. Parker et al., 2016). A summary of the relevant factors which indicate the readiness of a market for digital platforms can be seen in table 10.

Table 10: Characteristics of platform markets

Overview of factors which indicate the readiness of a market for digital platforms

Characteristic	Comments
Market fragmentation	The more fragmented a market is, the more value a platform can generate for customers.
Transparency	The less transparent a market is (regarding e.g. price) the more value a platform can generate for customers.
Digitization	The less digitalized a market is, the more value a platform can generate for both customers and suppliers
Regulation	Markets with strict regulation (e.g. Healthcare including Pharmacy) are rather more resistant to disruption in the form of a platform economy.
Assent intensity	In asset intense markets (e.g. industrial machinery) the number of suppliers is limited and thus these markets are less prone to disruption by platform economy.

Based on Parker & van Alstyne (2013) and interviews

Derived from the previously mentioned market situation the first step of a platform should be to evaluate the target market.

At the beginning a platform should not focus on building a brand, rather focus on building technology. Platforms should focus on adding value through transparency or digitization rather than through a brand.

→ Step 1: Market evaluation – how ready is the market for a platform?

After analysing which markets are prone for platform disruption, the next step is to analyse the decision at which point in the customer journey the platform can generate value. In general platforms can add value in three positions along the customer journey. First, they can add value in the pre purchase phase, second they can add value in the purchase stage and lastly they can add value in the post purchase phase. Often platforms start off at one phase in the customer journey and expand to others.
Recommendation engines or platforms like yelp or Tripadvisor started combining information of post-purchase customer experiences with pre-purchase customers. Along the journey they integrated a pre-ordering function for customers to book tables at partnering restaurants.

→ Step 2: Identify at which point in the customer journey the platform should be started
After identifying the potential platform market and the success promising point in the customer journey the next step in the development of a platform is the definition of the core unit of interaction. The core unit of interaction is the product or service which is being transferred from one party of the platform to another. This core unit may in some cases be a physical product (as it is the case of amazon), a service (as it is the case on Spotify) or an information (as it is the case on yelp). For the success of a digital platform it is crucial to get the core unit of interaction right. The unit of interaction has a unique value proposition for either consumers, suppliers or ideally both. In order to identify this core unit of interaction, the managers must decide who is the customer and who the supplier. In some cases, customers and suppliers can switch roles, where consumers become suppliers and suppliers become consumers. An example of this case is an UBER driver which can become an UBER consumer. For consumers, value propositions for consumers are convenience and/or transparency. On the other hand, value propositions for suppliers are often technology access or customer access or both. Ideally both suppliers and customers have unique value propositions in one core interaction. Ideally platform managers can map their offering of the technology, customer and supplier on the matrix shown in figure 11. The interviews have shown that founding a digital platform without a novel technology, granting suppliers access to new customers or customers access to new suppliers cannot be successful in the long run. Thus, as can be seen in figure 11, the design of a platform has to include at least one of the previously

mentioned factors. In the highlighted grey area, building a digital platform can be very challenging.

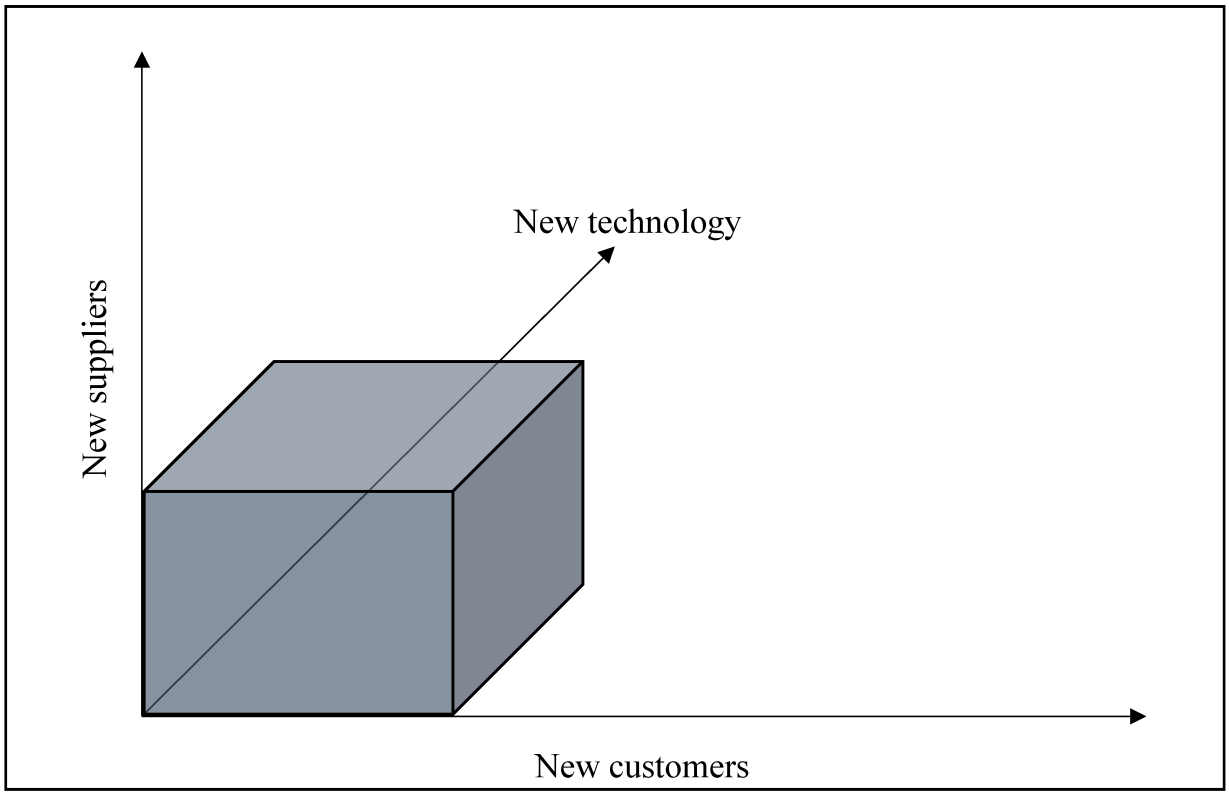


Figure 27: Technology, customer and supplier matrix

Depending on the current state of the market, different value propositions can be formulated. Also, in some cases in the same market multiple platforms can co-exist with different value propositions and technology. It is decisive to find the “Sweet Spot” as mentioned in the case study about Parcel Perform (figure 9). However, over time platforms tend to “envelop” and cover the value proposition of other platforms.

Often digital platforms test their products with smoke-screen tests (such as the case with Parcel Perform) in order to identify the customer need. These tests or minimal viable products have to be cheap, easy to build and easy to validate. Furthermore, platform ideas can be tested on websites, such as Producthunt.com where users can evaluate and upvote different business ideas. These tests can be indicators for future platform success.

→ Step 3: Define the core unit of interaction and the value proposition for suppliers and consumers. Test with MVP.

The next decision which has to be taken is, if the platform should be a branded platform or a platform of brands. As previously mentioned in figure 7, there are two opposing

models at the launch of a platform. Decision makers should identify how valuable the brands of their suppliers are for the products offered on a platform. The interviews imply, that in commodity markets often the brand of the supplier is not that important. However, in high involvement markets the brands of the supplying companies are important. For example, the online clothing retailer Zalando without branded clothing products would not have become a success.
Managers have to evaluate if their products are high involvement / need supplier branding in their interface, or if they are low involvement where the platform should focus on brand building of the platform. The advantages of platform branding is that suppliers become exchangeable and the customer interface is purely owned by the platform. Margins are potentially higher, as the suppliers have little or no leverage to differentiate their products on the platform. The disadvantages of platform branding are the costs of building a brand. Often multiple platforms are competing to become the known brand in this space. Brand building can be very expensive and time consuming.

The advantages of the platform of brands concept is that new platforms can build on existing brands to leverage the trust and recognition of their platform. The disadvantages of this concept are the dependency on existing brand suppliers. Furthermore, as the interviews have shown, the margins are smaller on platform of brands than on branded platforms.

→ Step 4: Branded platform vs. Platform of brands

In the final step before the launch digital platforms should internally decide which monetarization strategy they employ. The two key questions which have to be answered regarding monetarization are who has to pay for the platform (supplier/ user/ third party) and how does the payment take place (subscription, commission, retail media, etc.). However, as digital platforms heavily rely on network effects, practice has shown that "scaling before profitability" can make sense.

For a successful launch it is critical to identify the objective key results. The concept of objective key results was initiated by Andrew Grove at Intel (Lewy, 2012). The basic idea behind the concept is to determine a qualitative objective (such as market leader in a product category) and measure the success of this objective by quantitative metrics

(such as number of marketplace participants). Every key result has to have a “hard” metric with numeric figures. The transfer of this concept to the platform economy can help launch a successful platform.

→ Step 5: Monetarization and OKRs

Most interviewees agreed that a critical part of building a platform is solving the “chicken and egg problem”. This problem describes the issue which marketplaces business models have: Without any suppliers on marketplaces, no customers will come. And without any customers, no suppliers will join. Platforms have to find innovative ways to solve this crucial problem following multiple approaches identified during the interviews will be explained. The experts agreed that for each market there are different approaches. “For solving the chicken and egg problem, there is no one-size-fits-all solution, merely successful examples figuring as inspiration” (E, 3).
Six strategies could be identified as ways to solve the problem: Generating further supplier value (1), leverage aggregators (2), “piggy backing” (3), focus (4),“fake it until you make it” (5) (P, 13) and adding further customer value (6).

The first strategy to solve the chicken and egg problem is to offer suppliers further value apart from provision of customers (1). The company Batmaid used this approach and did not simply list cleaning personal on their websites but helped personnel move to Switzerland. Furthermore, they built an easy to use tool for filling in making tax claims on the platform. This further service offered exists additionally as a stand-alone product and helps the cleaning personnel. The founder claims that this was their major differentiation factor to solve the chicken and egg problem.
OpenTable, the restaurant booking platform, also had a similar approach. After initially realizing that mere matchmaking of customers and restaurants was not enough to be successful as a platform, they added a customer relationship management tool. This tool helped restaurants manage their customers and was very easy to integrate on existing software (plug and play). The software also supported in basic accounting functions (such as taxes etc.). Today OpenTable has served over 760 million customers in six different countries (OpenTable, 2019).

The second strategy how to solve the chicken and egg problem is to leverage aggregators (2). Aggregators are considered people or places where many potential users of platforms are present.
An example is StudySmarter which started off as an e-learning app, however quickly focused on university students. They approached professors and tutors to upload their data onto the platform. Especially on universities the word of mouth has shown to spread quickly. The identification of aggregators and collaboration helped StudySmarter scale to over 400000 users in Germany (2020).

Zimride – the American ride sharing platform, similar to the European BlaBlaCar – also used universities to scale their business. Previous ride-sharing start-ups had the problem of building trust with their users. People did not feel safe enough to carshare with a complete stranger. Zimride took a different approach and focused on matchmaking university students and employers of large companies. Their idea was that people would rather trust others from similar backgrounds. Now Zimride is active at over 125 universities.

The third strategy how to onboard many suppliers is to "piggy back" on existing products or services (3). In order to obtain a larger reach of their guides, the platform LocalBini, listed their tours on the travel rating website tripadvisor. The website tripadvisor is one of the leading travel rating websites in the world and many customers use the site to view e.g. restaurant ratings. Through this, LocalBini could leverage the large reach of tripadvisor. Key to this strategy is to have a better customer experience than the company which is being used to leverage growth, otherwise the use of the platform becomes obsolete.

The fourth strategy is to focus. It is crucial for platforms to reach the tipping point or also known as the critical mass. This is the point where network effects can lead to a rapid growth of the platform. However, reaching this critical mass can be difficult. One way of solving this problem is to focus on a niche group of customers. Feather, an insurTech start-up from Berlin, for example focused on insurance provision in English for expats which recently moved to Germany. If they had tried to address the whole market, the competition could have been too large and differentiation difficult. Their strategy is to start with the expat market as beachhead market and scale from there.

Another example is the expansion strategy of UBER. UBERs growth and launch strategy was to start off in one city (San Francisco) and scale from city to city. UBER tried to reach the critical mass as quickly as possible in one city, in order to have an adequate user experience (customer: enough taxis available; driver: enough clients available). The focus of the marketing spend was set on one city instead of launching throughout the entire USA.

The fifth strategy, as one of the experts mentioned, is to “fake it until you make it”. In order to fail fast, Chemondis the chemical materials´ marketplace tested their platform only with an easy to use frontend website where clients could purchase chemicals from suppliers. Chemondis at first claimed, that the processes were completely automatic. However, their initial product still had a manual backend. Chemondis preferred not to develop the automation tool at first but manually insert the data in order to save money if the marketplace shouldn’t lift off (P4).

Another example of a successful company is o-Desk. The platform which matched free-lancers and companies started off by claiming to have a large user base of free-lancers which had already registered. But, at the beginning they recruited many freelance workers if asked for by customers via telephone etc. to list them manually on the platform afterwards.

The final strategy is to create further customer value apart from the matchmaking with suppliers. Parcel Perform could expand and build a platform business model only because of their existing userbase and parcel tracking software. Their value proposition is not just based on matchmaking suppliers and customers, but also created value as a standalone product with their customer experience as a service tool.

Also, StudySmarter has a similar approach. They wanted to offer a digital learning tool as a standalone product and then created a marketplace on top of their existing userbase / data. Many social media companies (TikTok, Facebook, Instagram) have used this approach to build a platform. The idea is to go from data to business platform, as described in the Parcel Perform case study.

→ Step 6: Solve the chicken and egg problem

These six steps have to be considered during the development and launch of a digital platform. Often there is an iterative approach during the steps as can be seen in the table below.

Table 11: Developing a digital platform

Steps	Comments
Market evaluation	Identify and analyze the target market if it is ready and sufficient for a digital platform
Customer Journey	Identify at which point in the customer journey the digital platform could evolve
Core unit of interaction	Define the core unit of interaction, the product or service which is traded between two parties
Platform Branding	Decide on whether to have a branded platform, platform of brands or hybrid brand platform
Monetization	Identify the monetization strategy: who pays what and how?
Chicken and Egg	Solve the chicken and egg problem with creative solutions

Phase 2: Growth

In the following the next phase – growth – will be elaborated.

"It seems everyone follows the urban myth about marketplaces: demand follows supply."
-(E, 4)

After launching the digital platform, often with money from large corporations or venture capital, the main goal of the platform is to grow as quickly as possible (E, 3). Platform markets are winner-takes-it-all markets. This effect is due to the underlying network effects in platforms. Each further user on a platform creates value for the other users on the platform. Thus, platforms in the growth stage try to be the first to "win" a market.

In the growth phase there are two fundamental strategies of digital platforms. The first strategy is expanding the userbase (customers and suppliers) and the second strategy is to improve the matchmaking in order to generate more value from existing users. The two strategies can be seen in the figure 28. Both strategies are not mutually exclusive.

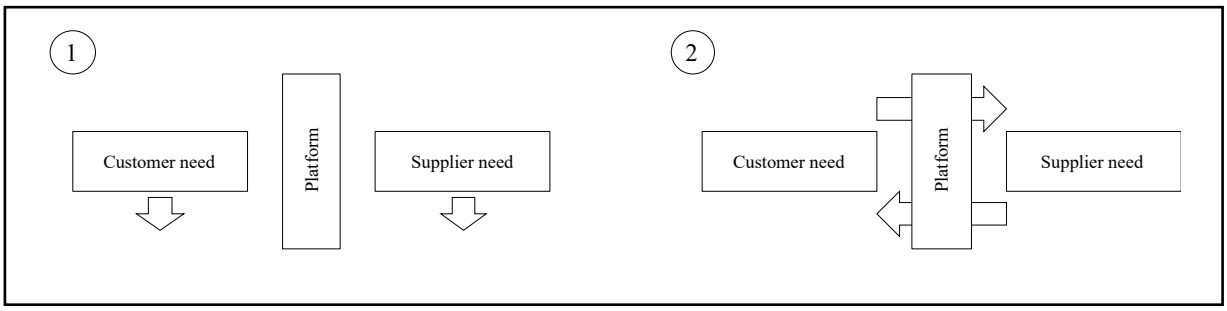


Figure 28: Growth strategies of digital platforms

The first strategy (1) is the most common and straight forward one. Platforms generate value through their user base. The larger the user base, the larger the value of a platform is. Many experts claimed in the interviews that a successful growth was only possible through growing the number of suppliers first and customers next. However, none of the interviewees had any data on whether this claim was true or not.

In the DNA of digital platforms there are at least two key stakeholder groups, suppliers and consumers, which have to be convinced to use the platform. These two stakeholders can differ extremely. In some cases, platforms have to be B2B companies and B2C companies. The communication and advertisement of the two groups can differ, depending on how heterogeneous they are.

→ Strategy 1: Value creation by adding users (suppliers and customers)

Strategy 2: Value creation by improvement of the matchmaking. Feather, the InsurTech start-up claims, that adjustment in the interface and matchmaking process could increase conversion rate up to 30%. This strategy can be powered by decisions based on big data / machine learning and smart algorithms. “Our platform generates so much data about our customers, we don’t really have enough time to analyze it all. Hopefully in the near future we can use machine learning to help sort and evaluate the data.” (P, 5)
As platforms aggregate vast amounts of data, algorithms could be trained quickly. An example for this practice is booking.com. Studies conducted by the market research group Evercore propose that the conversion rate on booking.com is two to three times higher than the industry average. Booking.com has even gone so far, that they opened a hypothesis box in their company, where any employee could add a hypothesis on what would improve the conversion. These then are tested inhouse or with small sample sizes. Should the improvement be successful in terms of increasing the conversion rate, the employee gets a financial compensation. The basic idea of the second strategy is to improve the matchmaking process to derive more value from existing users and lock these in.

→ Strategy 2: Increase matchmaking process

Phase 3: Maturity on digital platforms

After the growth stage of digital platforms, follows the maturity stage. This phase is reached, when the growth through either more suppliers and users, or through better allocation has reached a steady state. As soon as this is the case, platforms have to find new mechanisms to grow apart from the existing business model. There are two different ways how digital platforms can act in the maturity phase. These two strategies are shown in the figure below.

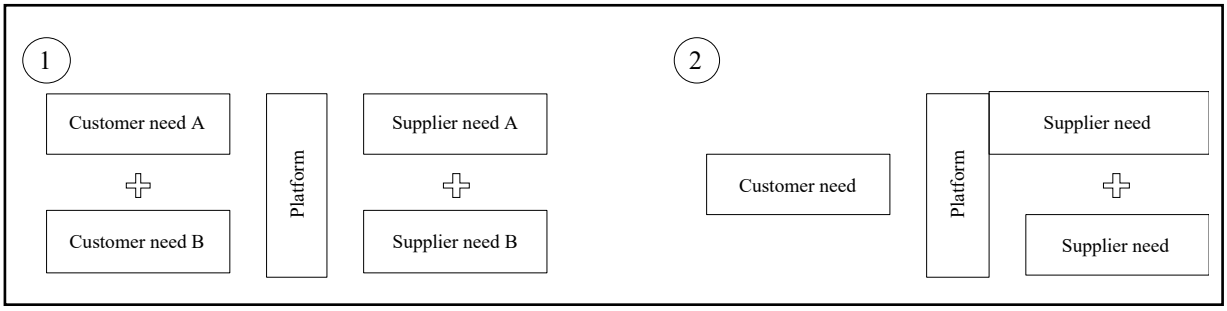


Figure 29: Strategies in the phase of platform maturity

The first strategy which platforms can follow in the maturity stage is expand the platform to other customer and supplier needs. In literature this process is also referred to as platform envelopment (Eisenmann, 2011). One example of this strategy is AirBnB offering experiences (such as a tour of Rome or a Japanese ramen cooking class) and not just accommodation. Another is UBER offering food delivery services and not just the ride-hailing business. In the best case, the new customer and new supplier needs are complementary to the existing needs. Ideally the existing users can be leveraged into the new products and services. “We will see multiple platforms expanding into different industries and new forms of coopetition will evolve. Booking.com is Google`s largest client but Google is Booking.coms´ largest competitor” (E, 7). In some cases, platforms evolve to platform-based ecosystems, where multiple suppliers are orchestrated to follow one customer need.

The second strategy platforms can turn to in the maturity stage is the vertical integration of suppliers. This strategy has been used by large online marketplaces such

as Amazon or Zalando. Based on their customer insight and data, platforms can evaluate which products from suppliers are the most profitable. In some cases, it then makes sense to offer white label products or basic products. Amazon for example offers "Amazon Basics" products, as does Zalando with their "Zalando Essentials" collection. Also, both mentioned platforms have created brands for their platforms where the customer does not realize that these brands belong to the respective platforms. Zalando for example offers clothing from the brand Pier One, which is owned by Zalando. Amazon runs the FMCG brand Solimo without highlighting that this brand belongs to them. A list of products and services which platforms can offer in the maturity stage can be seen in the table below.

Table 12: Overview of strategies in the maturity phase

Revenue sources of digital platforms after reaching the maturity phase

Characteristic	Comments
Controlling	Manage the accounting of suppliers.
Financial Services	Offer financial services, such as financing of products or insurances.
Marketing	Offer retail media options (possibility for suppliers to differentiate themselves on a platform).
Service platform	Extend the platform to a complementary service platform.
Services	Offer further services.
Business Intelligence	Offer business intelligence solutions and sell data to suppliers.
Customer Service	Offer first / second / third level customer service for customers.

As digital platforms rely on their suppliers, in the next step the author will examine how existing companies as suppliers can approach the phenomenon of digital platforms.

4.5 Theoretical implications

As previously mentioned, the dissertation follows the discovery-oriented research approach (Deshpande, 1983; Kohli & Jaworski, 1990) to increase the understanding of branding on digital platforms. The quantitative and qualitative study provided relevant information about the topic. More specifically, the previous studies contributed to three streams of literature: Trade-off access authority, platform value sources and branding on digital platforms.

The first theoretical contribution supports the hypothesis from information science that there is a *trade-off between access and authority*. Boudreau (2010) describes two types of openness, access and authority. Access is the ability for suppliers to join the platform. Authority describes the degrees of freedom suppliers have on a platform. Furthermore, Boudreau could show that in the information sector, opening access and authority would lead to a growth of the digital platform. However, the study of this thesis could show in contrast to Boudreau (2010), that with a sample of 119 successful digital platforms, there is a trade-off between access and authority from a marketing context to be found. Successful platforms balance their openness regarding access and authority. Furthermore, building on previous research (Benlian et al., 2015) the author did develop new scales for access and authority in a marketing context. These scales may be used for further research.

The second theoretical contribution is a *classificatory framework for value sources* of digital platforms (figure 18). Haile & Altmann (2006) provided a classification of value creation sources for software platforms. However the focus of the study was on technological platforms and not on market intermediary platforms (Haile & Altmann, 2016). Another existing framework focusses on platform design. Especially four elements are highlighted: platform architecture, value creation logic, governance and competition (Tura, Kutvonen, & Ritala, 2018). The framework proposed in the thesis (figure 18) takes a more holistic approach than the authors presented. Both the proposed framework and the Tura, Kutvonen & Ritala (2018) framework can be combined and can be seen as complementary.

The third theoretical contribution is a *classificatory framework of branding* in the context of digital platforms. Newmeyer et al. (2018) proposed six different types of brand alliances. However, here a new approach in brand alliances on digital platforms is proposed and categorized in three types. The existing model proposed by Newmeyer et al. (2018) does not explain the different relationships between platforms and suppliers. Lastly the previous study conducted in the thesis opens questions on how customer evaluate brands on a digital platform. This will be examined in chapter 5 with quantitative experiments.

4.6 Limitations

The previous study, a combination of interviews and quantitative data, has some limitations. Overall there are three limitations, which could be mitigated in future research: 1. Derivative of "access" scale, 2. Validity of openness and 3. Sample.

First it can be criticized that the development of the access scale could have been done in a more rigorous process. The author proposed to use the scales based on Benlian et al., (2015) from the information science research. Whereas it is common practise to use existing scales from other research fields, the author would propose future researchers to validate the scales in more depth.

The second limitation is using the 4Ps for the "openness" of a platform. The four Ps are a widely used, however critically discussed concept. However, the American Marketing Association lists the four Ps as one of the core principals of marketing. To the best knowledge of the author the four Ps are the most sufficient way of measuring the marketing activities of a company from a conceptual perspective.

Lastly the sample was obtained from the data company CBInsights. Only private listed companies were examined. As the start-up environment is a very dynamic environment, the author suggests future research to also add data from publicly listed companies.

5. Study 3: Supplier perspective

After viewing digital platforms from the platform perspective, in the next step the author will elaborate on digital platforms from a supplier´s perspective. The goal of chapter five is to demonstrate how existing pipeline companies (companies with a traditional linear business model) can deal with the new phenomena of digital platforms.

5.1 Methodological approach

In order to understand how suppliers can deal with the new phenomenon of digital platforms, qualitative interviews with traditional business model companies were conducted. Overall 26 interviews were conducted with managers from various different industries and company sizes. In table 13 an overview of the interviewees can be seen. The questionnaire can be seen in the appendix B. This section outlines the specific method used within this study

For the qualitative research analysis the analysis of the data was based on Mayring (Mayring, 2014). Mayring suggests four steps to extract results from interviews. First the interviews have to be conducted, then transcribed, third coded and finally summarized.

For the first step, experts on the overarching topic were identified and contacted. After agreeing on being interviewed the questionnaire was sent to the participants. In the second steps the key results interviews were structurally transcribed. In the third step the coding was done: First the categories of code were defined, second examples of such were added and finally categories were set. In the final step the main categories were derived from the coding.

Table 13: List of supplier expert interview

Overview of interviewees from platform suppliers

Company	Industry	Position
25hours Hotel Hotel Group	Hotel / Travel	(S1) Sales & Marketing
BiCa	Retail	(S2) COO
BMW	Automotive	(S3) Marketing Manager
Breuniger	Retail	(S4) Project Manager
Chamoon	Luxury	(S5) CEO
Cicor Group	Technology	(S6) Sales Manager
Covestro	Chemical	(S7) Venture Manager
Daimler	Automotive	(S8) Project Manager
Douglas	Retail	(S9) Project Manager
Hama	Services	(S10) Owner
Heinemann	Retail	(S11) Sales Manager
Henkel	Retail	(S12) Project Manager
Hilti	Power Tools	(S13) Project Manager
Hugo Boss	Luxury	(S14) Planning Manager
Intertec Tegro	Wholesale	(S15) CEO
F.S. Kustermann	Retail	(S16) Member of board
Madeleine	Luxury	(S17) Head of Digital
Migros	Retail	(S18) Digital Marketing
Mobiliar	Insurance	(S19) Communication
Pfister	Furniture	(S20) Head of Digital
PostFinance	Financial Services	(S21) Project Manager
Schwarzkopf	FMCG	(S22) Marketing lead
TÜV Süd	Services	(S23) Project leader
UniCredit	Financial Service	(S24) Selling Manager
Voestalpine	Steele	(S25) Communications
Warsteiner	Food	(S26) CMO
ZKB	Financial Services	(S27) Project Manager

5.2 Findings

After evaluating the results received from the interviews with managers from different supplier industries as mentioned in table, four possible strategies in dealing with digital platforms were identified and are now analysed. These four strategies are: (1) participate, (2) establish, (3) collaborate and (4) oppose will be discussed in the following. An overview of the four different strategies can be seen in figure 26 and will be further discussed in detail below.

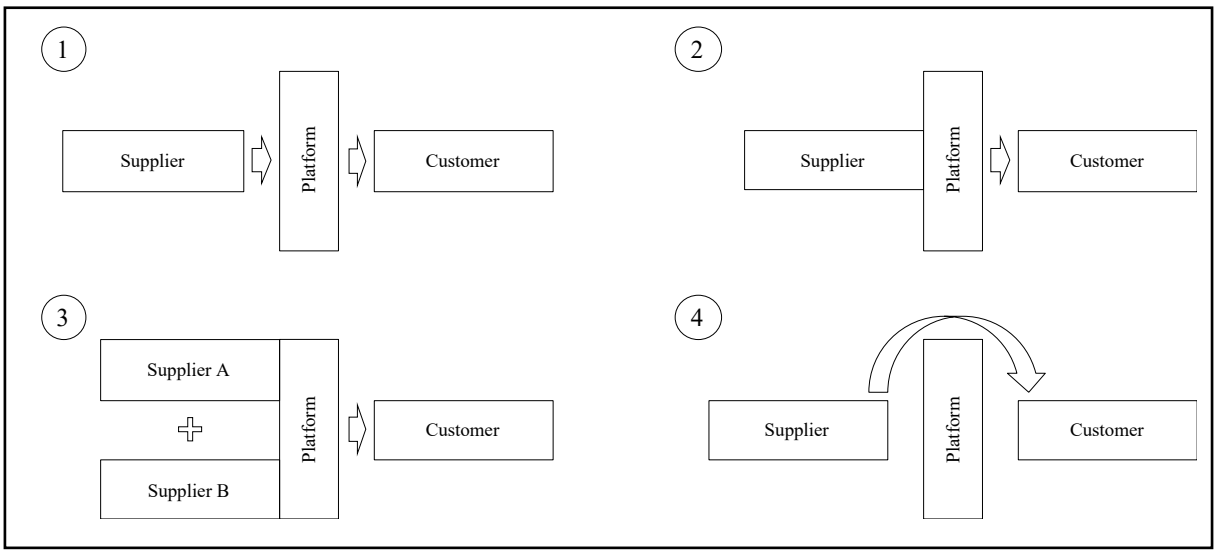


Figure 30: Supplier options for dealing with digital platforms

Participation

The *motivation* for suppliers to participate on digital platforms can have three main reasons, which are not exclusive. The first reason is access to technology. Digital platforms, such as booking services, can offer small and medium sized enterprises access to technology which they otherwise could not afford. Eat.ch for example offers restaurant management software to small restaurants. The restaurants in return have to offer their products on the eat.ch website. The second reason why suppliers join digital platforms is to cater for the rising needs of existing customers. Customers have increasing demands regarding their experience of products and services. This concept is regarded as “the last best experience”. Whenever a customer has a better customer

experience, this new experience becomes the benchmark for further experiences. Digital platforms can be the foundation of a new standard for existing customers (Gowers, 2016).
The last reason to participate on an existing digital platform is to reach out to new customer groups. “Zalando offers us the possibility to sell products in Poland without having to build a local team there”, the head of business development of Madeleine claims (S, 16). The reach out to new customers was the most frequently mentioned motivational aspect why suppliers join digital platforms.

The interviews revealed that the *location of the digital platform* in the customer journey can differ. In all three phases digital platforms can co-exist: pre-purchase, purchase and post purchase. Often multiple platforms are accessed during the customer journey. For example, a potential customer sees an advertisement of shoes on the picture sharing platform Pinterest (pre-purchase phase), then goes to Zalando and purchases a pair of shoes (purchase phase). Finally, the customer reviews the product on the shoe review website RunRepeat.com. Suppliers need an overview of the digital platforms where it makes sense to participate in.

Lastly, *participation* on these digital platforms can be either active (where the supplier actively controls the product or information) or passive (where other stakeholders such as customers or retailers control the product or information). Active participation is when e.g. Adidas sells their shoes on Zalando. Passive participation is where a retailer sells Adidas shoes via Zalando. In the second case Adidas has no active control over the brand, pricing etc. Suppliers should monitor where in the customer journey Adidas plays a role and how the supplier is participating on the digital platform. Management practice has shown, that digital platforms can arise in one stage of the customer journey (such as pre-purchase) and further integrate other parts of the customer journey. Thus, it is a key issue for suppliers to manage their participation on digital platforms. A framework of platform management can be seen in Figure 31, with Adidas as an example.

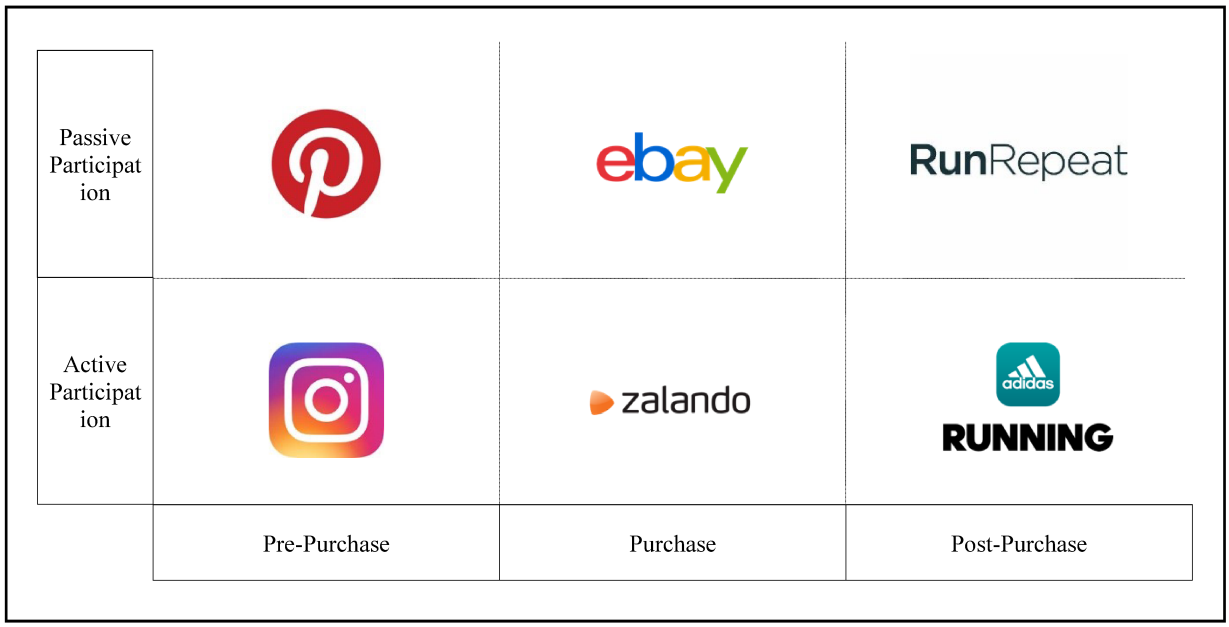


Figure 31: Platform management framework for Adidas

Source: Based on Schögel & Schumacher 2019 and Lemon & Verhoef (2016)

In the following the examples from the framework shown in figure 31 will be discussed.

Pinterest is a platform where users upload images of Adidas shoes for other users to see. These shoe pictures may inspire other users to further look for Adidas shoes. Simultaneously Adidas pays for pictures on *Instagram* adverts or via social media influencers and actively participates on a platform in the pre-purchase phase.

Adidas has partnerships with *Zalando* where their shoes are promoted and sold. Here Adidas actively participates on a platform in the purchase phase. At the same time some retailers are offering Adidas shoes on *Ebay*, where Adidas has no influence on the purchase.

Lastly on the shoe rating platform *RunRepeat*, consumers can evaluate how good their experience with Adidas running shoes are. Here Adidas products are rated and adidas has not active participation on the platform. However, Adidas also actively participates in the running network *Adidas Running*, where a community reviews their running experience and also Adidas shoes.

Whenever participating on a platform, terms and conditions of joining have to be negotiated with the platform. Depending on the supplier size and platform type, the negotiation can differ. Some platforms have standardized terms and conditions for joining, where no negotiation is possible. In some cases, there is room for negotiation. As platforms offer many different products and services for suppliers, it is important to evaluate which products to use, and which services can be kept in-house. Examples for further offerings on platforms, are logistics (in the case of Amazon), yield management (in the case of booking.com), retail media or advertising (in the case of Zalando), financial services (in the case of Movu) to name some examples. Suppliers face the challenge to choose which products or services to "buy" in from the platform and which services to outsource to other businesses or to keep inhouse. Madeleine for example, sells their products via Zalando, however wants to keep the logistics and packaging in-house in order to have more control over the touchpoints and customer journey. The problem Madeleine faces, is that clients purchasing on Zalando have free shipping and clients purchasing on the Madeleine e-commerce store have to pay for their shipping. This cannibalization of distribution channels is not ideal. A summary of the make-or-buy decision framework can be seen in the figure 32.

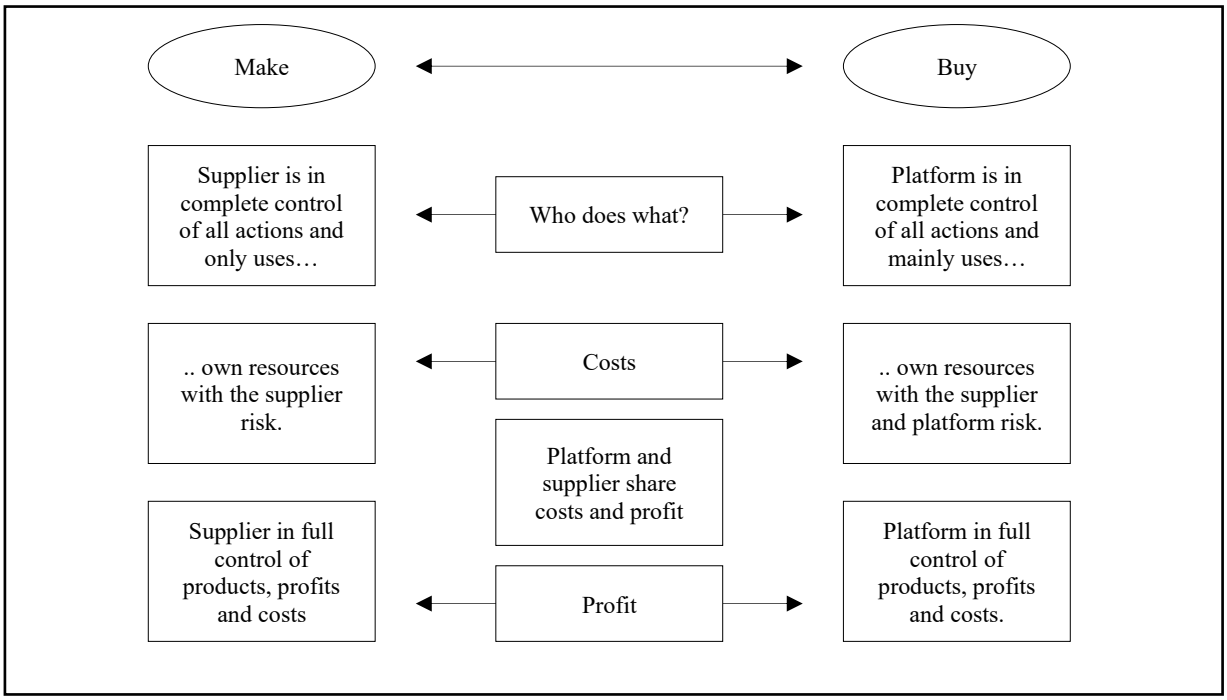


Figure 32: Make or buy in the case of digital platforms

Source: Based on Schögel & Schumacher 2019

Examples for products and services offered by digital platforms are traffic acquisition, onset marketing, inventory management, pricing, payment process, invoicing, fulfillment, customer service and customer relationship management. Depending on the own capabilities, some services offered by platforms can be bought and others can be left made inhouse. Further research in chapter six elaborates on how customers evaluate their participation on platforms.

Establish

The second strategy how to deal with digital platforms is to establish a new own digital platform. There are two fundamentally different strategies for establishing a new platform. The first is to build a platform on top of the existing brand. The retailer Douglas for example built the Douglas partner program, where retailers can offer their products on the douglas.com website. Also otto.de launched a similar marketplace and opened their e-commerce store for external participants. The other strategy is to create a new marketplace with a new brand. One example from practice is the company Würth, which created a marketplace for nails and screws branded Wucato. Another example is Chemondis, which is an online marketplace owned by Lanxess. CEOs from both companies highlighted, that they are a "technology company" not a "producing company". However, establishing a new platform can be very demanding in cost and talent. The mindset within a company is crucial, as companies list their products next to the products of competitors. Purchasing an existing platform can be seen as establishing a platform, however internal conflicts may arise, as platforms can cannibalize an incumbent´s existing business. Managers have to decide whether platforms can be established in the core business or in complementary businesses. The Baloise insurance company for example purchased the moving company Movu in order to sell insurance as add on to people who move houses.

Collaborate

The third strategy on how to deal with digital platforms is to collaborate with existing non-platform companies in order to build a platform. A prominent example from Switzerland is the platform Siroop. Siroop was launched in 2015 by the

telecommunications´ provider Swisscom and the retailer Coop. The basic idea was to leverage the technological expertise of Swisscom together with the retail expertise of Coop. A further example is the company RoomKey. RoomKey is a joint initiative from the hotel groups, InterContinental, Hilton, Mariott, Choice Hotels and Wyndham worldwide. The idea was to offer a booking platform for all participating hotel members to compete against the Priceline group. In both cases, Siroop and RoomKey were not successful as experts believed Siroop failed due to unclear communication and advertisement. Furthermore the technical integration of suppliers onto the Siroop platform was an issue (E11).

Oppose

The fourth and final strategy on how to deal with digital platforms is to oppose products being listed. Digital Platforms are in some cases seen as serious threats for existing brands. This leads to some companies avoiding platforms and looking for direct-to-consumer strategies. Companies like Nike or Ikea have recently decided not to sell products on Amazon anymore. David Kahan, the CEO of Birkenstock Americas wrote the following paragraph to his retailers:

"PROHIBITION ON SALES TO RESELLERS. You are not authorized to sell, distribute, or ship our products to any reseller. By selling Amazon, who "may" in effect re-sell the product, you would be breaking our policy. It does NOT matter where they choose to resell, inside USA or outside USA - any transaction you would have with them would be a violation of our agreement. I will state clearly, any Authorized retailer who may do this for even a single pair will be closed FOREVER. I repeat, FOREVER." (Kahan, 2017)

The previous paragraph from the letter to Birkenstock retailers shows how drastically Birkenstock as a premium brand retailer wants to oppose their products being on the platform Amazon. Birkenstock on the one hand fears counterfeited products on Amazon and on the other hand fears loss of control over the Birkenstock brand. This phenomenon of prohibition of products on platforms will be explored in a quantitative study in the next chapter.

These four strategies (COPE – Collaborate, Oppose, Participate and Establish) are not totally mutually exclusive and can be combined. The key for a successful platform strategy is to evaluate every relevant platform and decide where to actively participate (customer journey) and how (make or buy).

5.3. Managerial implications

The managerial implications of the study can be split into three parts. First, the author proposes the "COPE" strategy options with digital platforms. Second, the author derives the classificatory framework which identifies where platforms can be relevant along the customer journey. Lastly, the author explains the strategic options in managing partnerships with platforms in detail.

Neither in literature nor practice a complete taxonomy exists of how to deal with digital platforms from a supplier's perspective. Based on the previous qualitative interviews, the author proposes the COPE model:

(1) Collaborate: Two or more existing incumbents collaborate to build a platform brand. (Swisscom + Coop = Siroop)
(2) Oppose: Incumbent brands radically try to avoid digital platforms (Birkenstock on Amazon)
(3) Participate: Incumbents join an existing digital platform brand to sell their products (Madeleine on Zalando)
(4) Establish: Incumbents build or purchase a digital platform brand (Migros purchasing Digitec / Galaxus).

In the following the advantages and disadvantages of each strategy will be analysed. Furthermore, recommendations and prerequisites for the success of a certain strategy will be discussed.

Whenever two or more incumbent companies decide to build a digital platform, this is regarded as the "collaboration" strategy. Examples from practice are Swisscom and Coop collaborating to build the online marketplace Siroop (E11). Another example is multiple hotel companies collaborating to build the online booking service RoomKey. RoomKey is a collaboration between companies from the same industry (Berzon, 2012). Siroop on the other hand is a collaboration between two companies from different industries. The strategic alliance partners should be complementary. At least one partner

should have industry expertise in which the platform is being built (E4). The other partner should have technological expertise. In the following figure 33 the different collaboration scenarios can be seen.

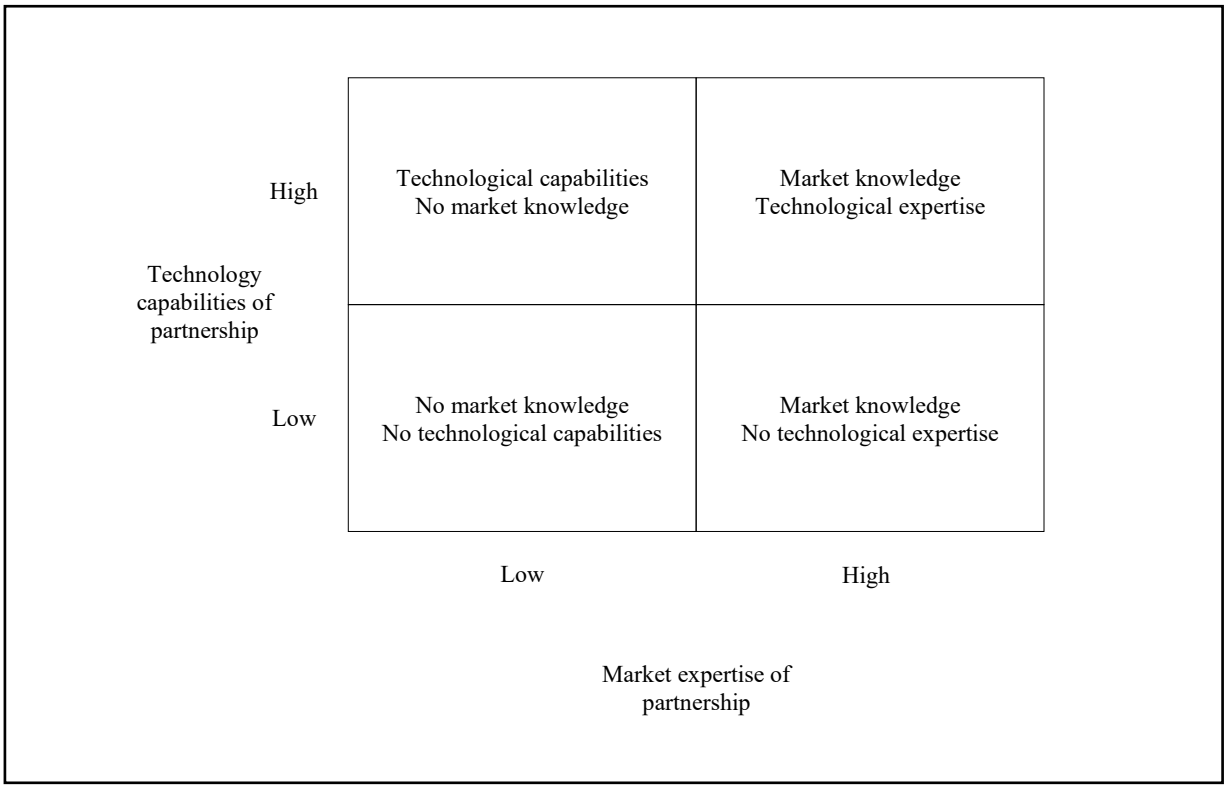


Figure 33: Partnership scenarios

RoomKey had no technological expertise (being hotel groups only) in their partnership. Without the necessary technology available from one of the partners building a platform can be complicated. An expert believed that in principle the idea of Siroop, the combination of a technological partner (Swisscom) and a retail expert (Coop) was an idea of considerable impact. However, apart from their marketing issues, their expansion strategy was not aligned to figure 17: Either focus on few suppliers only and integrate these well or focus on multiple suppliers and decrease the degree of integration.

The second strategy, to oppose digital platforms, is especially preferred by strong brands from high involve products (S9). The opposition strategy can only be successful if suppliers have direct contact to their customers. Recently many direct-to-consumer start-ups have evolved focusing on the customer experience of a single product. Examples

are the online mattress e-commerce company Caspar, or the spectacles manufacturer VIU. The opposition strategy can be selective for some platforms, as it is the case with Birkenstock and Amazon. Birkenstock sells their products via Zalando but not via Amazon.

The third strategy is to participate on existing digital platforms. The author proposes three aspects, which have to be considered before participating on a platform. These three aspects were derived from the interviews. First suppliers have to decide where in the customer journey they want to participate on a platform. Second suppliers should evaluate the competition already taking place on digital platforms. Finally, suppliers should evaluate how the strategic partnership should take place.

In order to evaluate where a supplier should participate on a digital platform, the author proposes the framework seen below. In general, the customer journey is split into three parts, pre-purchase, purchase and post-purchase (Lemon & Verhoef, 2016). Furthermore, the platform participation can be divided into active participation and passive participation. Active participation is when suppliers actively collaborating with platforms. Passive participation is when supplier products or services are being offered by 3rd party providers. Managers should decide where in the customer journey participation is necessary. In some cases, passive participation on platforms already takes place. An example of the framework proposed can be seen in the following figure 34.

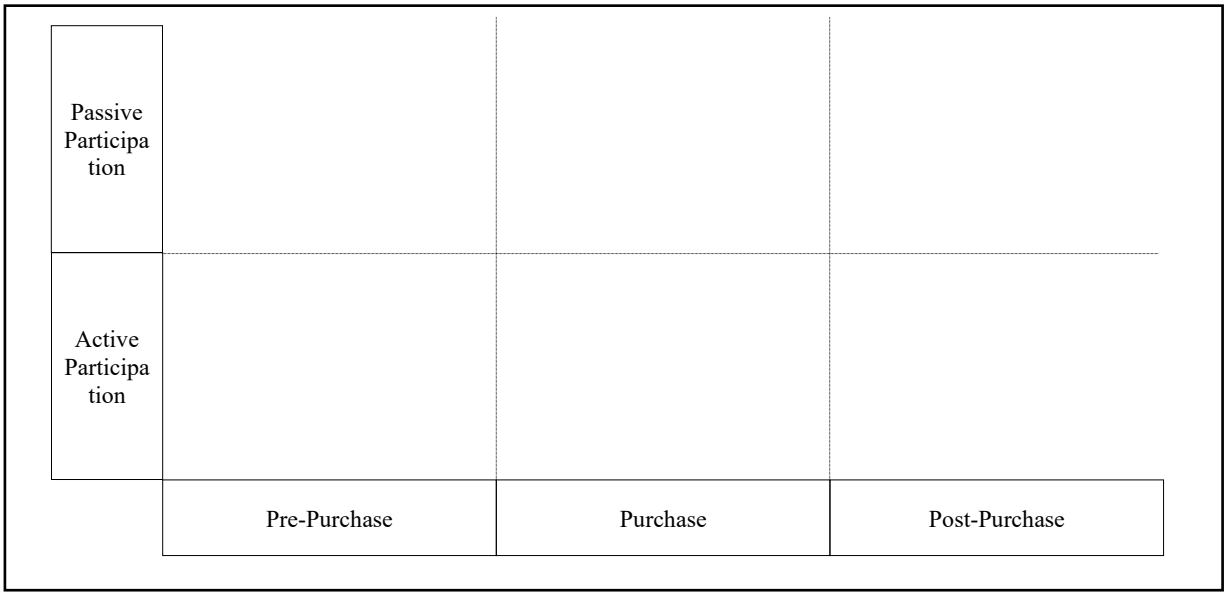


Figure 34: Platform participation framework – example

Often companies participate on multiple platforms in all three phases along the customer journey both in supplier core and peripheral products: For example, Nike shoes are advertised on Facebook, bought on Zalando and further shoe-laces on ebay. Furthermore, the strategic objective of the participation should be discussed. Platforms can offer value through technology or customers. However, the more suppliers are locked into a platform, the more dependent they are on platforms. With the established Flixbus platform, it is very hard for bus companies to sell bus transportation without the platform.

In order to evaluate on which platforms collaboration is desirable, the author proposes an adaption of the portfolio framework from Schögel et. al (2004). The matrix can be seen in figure 35 and divides platforms into four groups (Schögel, Sauer, & Schmidt, 2004).

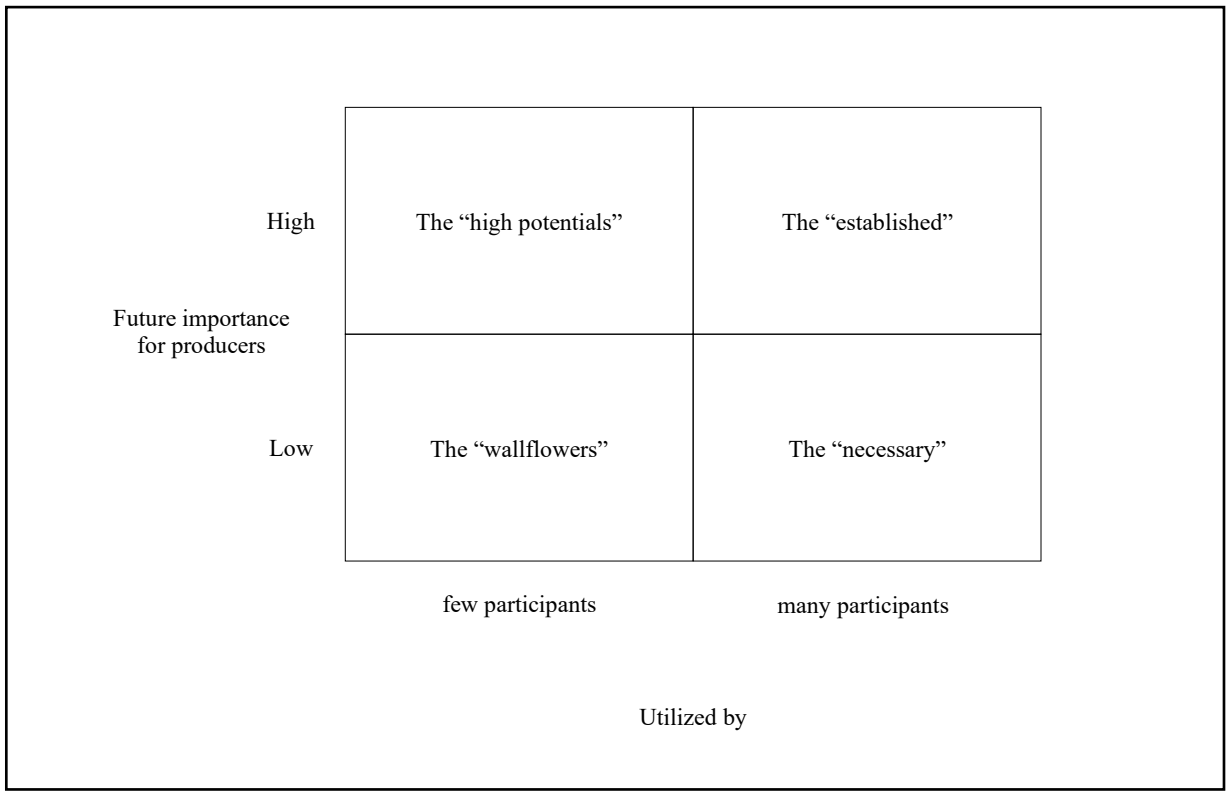


Figure 35: The distribution portfolio

Based on Schögel et al. (2004)

(1) The wallflowers: Companies which are utilised by few participants with a low importance for the future of producers. Suppliers should monitor these wallflowers and evaluate if a test participation could make sense, as wallflowers may turn into potentials.

(2) The necessary: These are platforms, where participates, even though the future potential is low, have to face competition. Reviews on Tripadvisor are used by many restaurants, however the future importance is questionable. Companies should find long term strategies to replace the participation on these platforms.

(3) The potentials: Potentials are platforms where the outcome of participation is unclear due to the lack of collaboration experiences. Participation is highly recommended, as these platforms will become relevant in the future. Companies in some cases seek to collaborate with young platforms, which may in the future play a large role in an industry.

(4) The established: Suppliers often have to participate on the established platforms, as they will be relevant in the future and multiple competitors are already participating. However, on established platforms differentiation may be an issue. In the fashion industry it is crucial for many brands to collaborate and sell their products on Zalando.

Lastly, after deciding on where in the customer journey suppliers should participate and on which specific platform, the mode of collaboration has to be discussed. In principle there are three distinct strategies on collaboration.

(1) First, suppliers can participate on platforms which allow complete configuration of the customer experience and product presentation on the platform. These are low authority platforms and suppliers can differentiate themselves from other suppliers through the customer experience. One example is the chines platform Shopify, where brands have the possibility to differentiate their product and create their own customer experience.
(2) Second, suppliers can participate on platforms where both supplier and platform add brand value. The degree of customization in the customer experience is possible however not fully customizable. One example is the Chinese website Tmall, which gives suppliers the ability to change their experience and customize the page. Also Chinese consumers have trust in the Tmall website.
(3) Third, suppliers can participate on platforms with high authority. On these platforms' little differentiation through the customer experience on the platform is possible. Suppliers mostly differentiate themselves through price or a more efficient supply chain. Flixbus covers the complete branding of the mobility experience and the bus providers have no possibility to differentiate.

A table of the three strategies which discusses aspects such as supplier differentiation can be seen in table 14.

Table 14: Branding scenarios of digital platforms

Overview how platforms brand their products

	Supplier branding	Co-branding	Platform branding
Example	Penguin Books on Shopify	Adidas on Zalando	Albus Munich Bus on Flixbus
Supplier differentiation	Brand Price	Brand Price	Price
Supplier choice	Customer	Customer	Platform
Marketing leadership	Supplier	Supplier/ Platform	Platform

Based on Schögel, Tomzcak & Sauer (2003)

The fourth and final strategy is to establish a new platform. Establishing a new platform can be very cost-intensive (E,12). However, should the platform be successful, companies can manage to disrupt their own industry. Incumbents should evaluate the position where in the customer journey a platform could be created. Platforms can evolve in the core product of a company or in peripheral products. Experts believe that to launch a new platform as an incumbent, the platform needs complete control over the decisions without involving the mother company (P4, P25). Often platforms which were created by incumbents cannibalize the existing business and thus the experts recommend a spin-off (P25).

All in all, the author proposes a management framework about the four different strategies on how to deal with digital platforms. In the following chapter the author will examine how customers evaluate partnerships between platforms and suppliers.

During the interviews conducted with the industry experts, platform experts and pipeline experts multiple questions were raised regarding brands on digital platforms. For example, the head of the company Pfister believed that the brand Pfister is relevant for consumers when they purchase a product on the marketplace Digitec / Galaxus (S20). So far there is no clear understanding about the relevant importance of the product brand, the supplier brand and the platform brand. In chapter 6 experiments are conducted to answer the questions regarding brand importance for consumers.

In order to understand the relative importance supplier / producer / platform brands, four surveys were conducted and will be elaborated in the following chapter.

5.4 Theoretical implications

The theoretical implications contribute to three different literature streams. First, this study contributes to channel management research. Second this study provides a new perspective about brand alliances. Lastly this study contributes to business strategy research.

In the *channel management* literature, participating on digital platforms can be considered as a further channel. Previous research often stated "e-commerce" as a single channel (Schögel & Binder, 2011). However, the author proposes splitting up the e-commerce channel into three branches, direct e-commerce, retailer e-commerce and platform e-commerce. In the direct e-commerce there are direct contact points to the consumer, e.g. the company website on the platform. In the retailer e-commerce channels there is the retailers´ offering supplier products on the platform while at the same time bearing the risk. Finally, the platform e-commerce channel where suppliers offer their products via digital platforms online. The risk and commission of distributing the products are based on how many items are sold (E3).

In the literature analysis of *business strategy* contributions are assessed regarding company strategy options. The COPE (cooperate, oppose, participate and establish) framework is an initial approach for categorizing how incumbent companies can deal with digital platforms. Empirically the advantages and disadvantages of each strategy will be discussed. In the managerial implications' initial findings regarding the advantages and disadvantages of each strategy will be discussed.

Lastly a first step has been made in the *brand alliance* literature stream. So far little research has examined how digital platforms collaborate with their suppliers from a brand perspective. In the following study this concept will be further explored.

All in all, the study opened various new research questions in all three literature streams.

6. Study 4: Customer perspective

The final study of the dissertation will deal with the customer perspective on digital platforms and their suppliers. This chapter explores the questions raised from the previous chapter:

Q1: How important is the product brand?
Q2: How important is the supplier brand?
Q3: How important is the platform brand?

First an overview of the research design will be shown then each study will be discussed in detail. Finally, the managerial implications of all studies will be discussed.

6.1 Overview research design

All three studies conducted are exploratory research studies. The studies were conducted with participation from the crowdsourcing website Amazon Mechanical Turk (MTurk). Research has shown that the quality of MTurk studies can be high (Goodman & Paolacci, 2017), if the relevant academic recommendations are followed (Hauser & Schwarz, 2016).

In order to follow the academic recommendations, the study should first only include interviewees, which have at least a certain approval rating and level of expertise in the field they are interviewed (Hauser & Schwarz, 2016). Second the study should involve attention checks, if the participants are actively reading the instructions. Third, the interviewees knowledge of commonly used research questions should be taken into account. Subsequently, all recommendations were taken into account during the operationalization of the study.

An overview of the studies can be seen in table 15.

Table 15: Overview of the experiments

Title, population and sample size of the quantitative studies

Study	Title	Population	Sample size (raw/cleaned)
1	Aided and unaided product and retailer brand recall on digital platforms	Amazon Mechanical Turk	101/ 76
2	Brand preference of known and unknown brands for low involvement products on digital platforms	Amazon Mechanical Turk	110/ 104
3	Brand preference of strong and weak brands for low involvement products on digital platforms	Amazon Mechanical Turk	223/ 213
4	Brand preference of strong and weak brands for high involvement products on digital platforms	Amazon Mechanical Turk	241/ 224

6.2 Study 4.1: Brand recall on digital platforms

Method

Study one tested how important the product brand is in comparison to the supplier brand on a digital platform. To allow such testing a mock-up website was built. The mock-up website can be seen in the Appendix E. The mock-up website was based on similar mock-up designs used in marketing research (Herhausen et al., 2015).

Participants

The survey participants were recruited from the website Amazon Mechanical Turk. The participants were offered USD 0.5 for completing the survey. The estimated completion time of the survey was 5 minutes. Only workers with an approval rate of at least 98% and a completion rate at over 500 tasks were chosen. The regional focus was on the United States of America.

In total 101 participants took the study. 29 participants were removed from the sample, as they did not pass the attention test and copy pasted their results. The final sample included 76 participants. The average age was 32 years and 33 (43.42%) of the participants were female and 43 (56.68%) male.

Procedure

The participants were introduced to the survey and they were told to imagine a scenario where a new online marketplace ZANOW has opened and the participants wants to order soft drinks for a party. Afterwards participants were shown twelve mock-up websites where different soft drinks from different suppliers were shown and should rate how likely they would purchase the offer. In total there were four cases with three examples: strong / weak product brand combined with strong / weak retailer brand. These cases were shown randomly. After viewing all 12 mock-up websites the participants were asked to enter all the soft drink brands and retailer brands they remember (unaided recall). Then the participants were asked to choose the product and retailer brands from 20 brands shown (aided recall).

Results

To test where the attention lies during an online purchase on a platform an unaided and aided recall test was conducted. The results can be seen in the graphs below (Figures 36 & 37).

In the unaided recall test on average 55% of the strong product brands could be recalled in comparison to only 18% of the strong retailer brands. A significant difference existed in the comparison between weak brands of products and retailers ($p < .01$). In average 17% of the weak product brands were recalled in comparison to only 3% of the weak retail brands ($p < .01$).

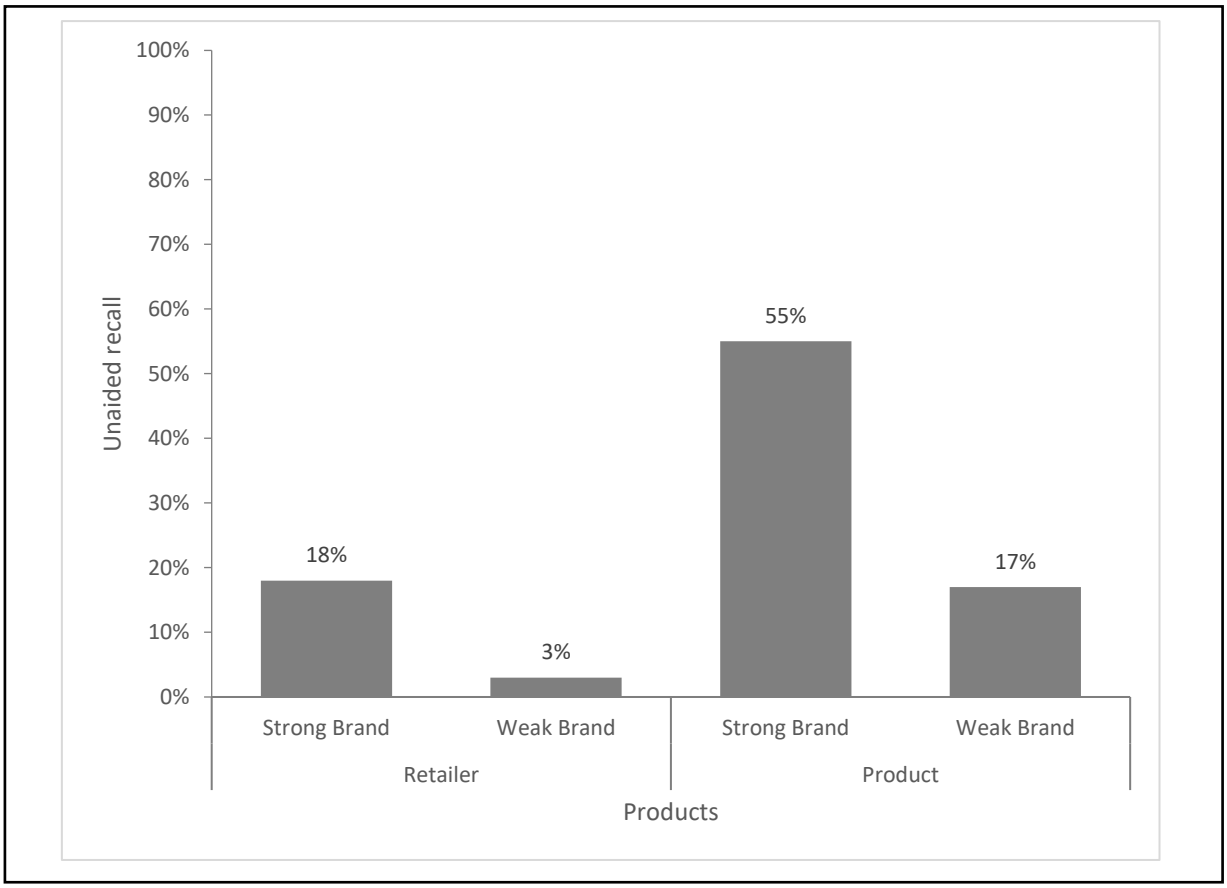


Figure 36: Unaided recall results, n=76

In the aided recall test, on average 60% of the strong product brands could be recalled against only 40% of the strong retail brands ($p < .01$). On average 40% of the weak product brands could be recalled in contrast to only 23% of the weak retailer brands. The results can be seen in the figure 37.

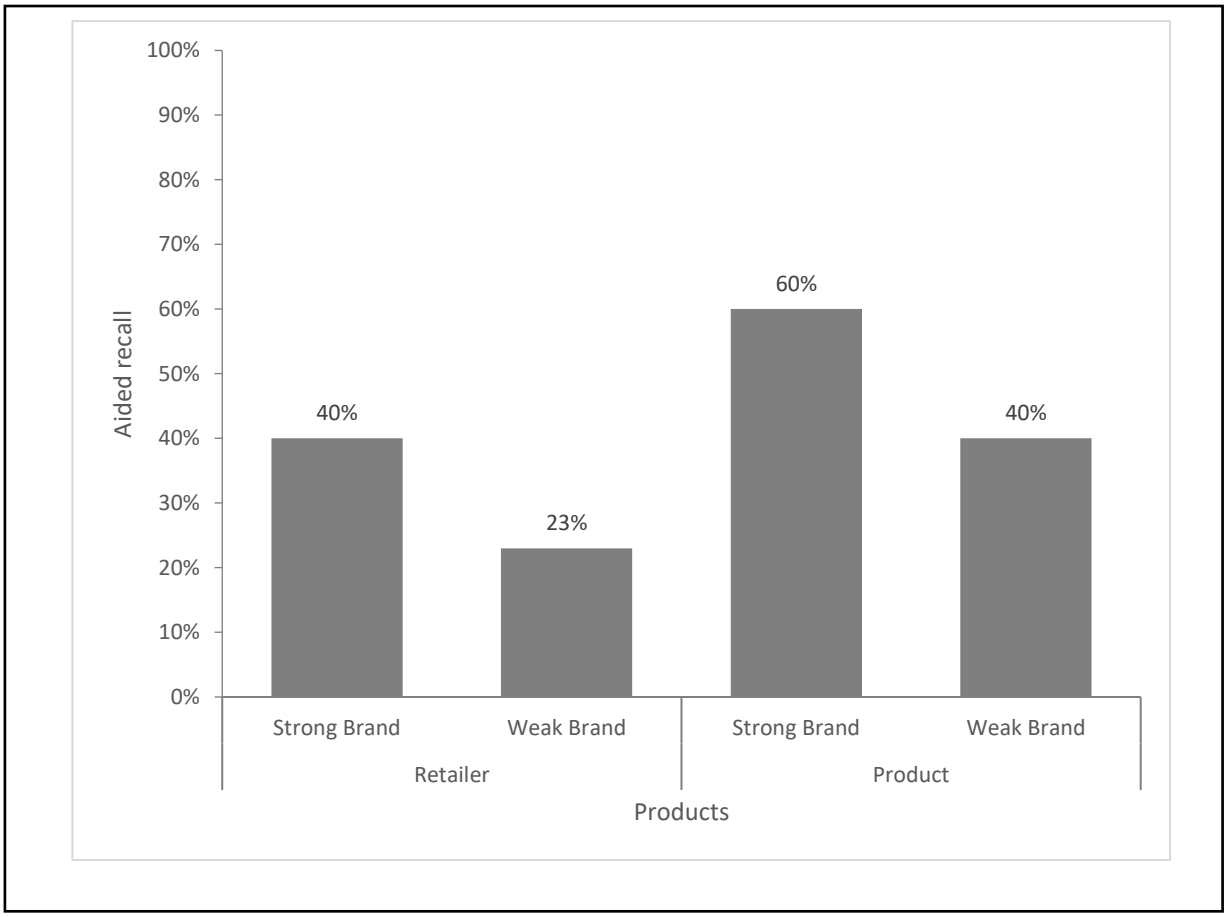


Figure 37: Aided recall results, n=76

Discussion

This study implies that the recall from product brands is higher than the recall from retailer brands on digital marketplace platforms. This finding suggests that consumers pay more attention to the product brand than to the supplier brand. Furthermore, this observation indicates that the retailer brand may not be as important as the product brand during the purchasing process on a digital platform.

However, this may be due to the fact that the product is more prominently shown on the platform than the retailer (as the mock-up website showed the product and only had the

name of the suppler, as is the case on similar marketplaces, such as Amazon or Otto.de). In order to eliminate the importance of the logo size, the author standardized the sizes of the logos from suppliers, producers and platforms in the upcoming studies.

6.3 Study 4.2: Brand importance - low involvement – real brands

Method

The second study investigated the relative importance of product brands, supplier brands and platform brands. In order to do so, a choice experiment was conducted. Participants were shown different product scenarios, which together formed a choice set, and were told to choose any specific option (Train, 2009, p.11). The basic idea of the choice based conjoint is that consumers choose the option which yields the highest utility for them (Train, 2009, p.14). Participants were faced with a situation they could experience in real life, where they have to make trade-offs between different product alternatives.

The conjoint analysis, also seen as a nonparametric counterpart to multiple regression analysis, allows researchers to obtain two important types of information:

1. The utility score of each level from all attributes, and
2. The relative importance from all attributes in the decision-making process.

Participants

The second study was conducted with Amazon MTurk participants. Only participants with at least 500 tasks and an approval rate of 98% were able to participate in the study. All participants were from the US. The compensation was USD 0.7 for an expected completion time of seven minutes, which was pre-tested. In total 110 MTurk participants completed the survey. Of these six were excluded, as they did not pass the attention test. As a result, 104 participants were included in the dataset and 69 (61%) participants were male and 45 (39%) were female. The average age was 32 years.

Procedure

Similar to the previous study, the choice experiment in study 2 was set on an online marketplace. The subject of the study was an online purchase of batteries on a digital platform through a supplier. The three attributes examined are marketplace brand, retailer brand and product brand. In appendix E an overview of the different brands used can be seen. Each attribute had four items, two strong existing brands and two unknown, invented brands. The two web shop brands chosen were Amazon and Jet.com. Both are large and well-known online marketplaces in the United States (Hübner, 2020). The two known retail brands chosen, were Walmart and Kroger. Both have over USD 100 bn in revenue (Ahmed, 2019). Lastly the two known battery brands chosen were Duracell and Energizer, which both are market leaders in the US with jointly over 50% market share (Statista, 2016). In the appendix E, the logos of the brands chosen can be seen. The survey was split into three parts. First the setting was explained. Participants were told to image that they wanted to purchase batteries on an online marketplace. Second the participants had to do the choice tasks, where they were shown different brand scenarios from retailers, marketplaces and products. Lastly the demographics of the participants were gathered, which included gender (female/ male), age (in years) and education. Furthermore, an attention test was included to filter out participants with random answers.

Table 16: Description of conjoint design (real brands / low involvement)

Design and cases used in the conjoint analysis

Category	Attribute	Brand Names
Platform brand	Known	Amazon, Jet.com
	Unknown	MartMarkt, Langrein
Retailer brand	Known	Walmart, Kroger
	Unknown	J-Market, Maghis
Product brand	Known	Duracell, Energizer

	Unknown	DoublePow, TowEnergy

Results

The results of the conjoint analysis are split into four parts. First the relative importance scales will be shown, then the utility score of the specific items from platform, retailer and producer brands. The computing of the results was done by the web-based Discover Sawtooth Software. There are multiple ways to assess the relative impact (e.g. multinominal logit, hierarchical Bayesian or merely counting the wins). Sawtooth uses the hierarchal Bayesian, as it is the most commonly used, when conjoint analysis are used as a research method. Thus, for this thesis, the hierarchal Bayesian method was used to obtain the relative importance.

Relative importance

Table 17 shows the relative importance of the attributes: Platform brand, retailer brand and product brand. The relative importance of the attributes was calculated by dividing the specific attribute utility range through the total attribute utility range. As can be seen in the table, the most important attribute is the platform brand (45.07%) followed by the product brand (32.19%) and lastly the retailer brand (22.74%).

Table 17: Relative importance of brands

Overview of the relative importance between platform, retailer and product brand

Attribute	Relative importance (%)
Platform brand	45.07
Retailer brand	22.74
Product brand	32.19

Platform utility

The different path worth utilities of digital platforms from the first conjoint study can be seen in the figure 38 below. Amazon has by far the highest utility rate with 50.7. Next is the utility rate of Jet.com (-4.7). Finally, the invented platforms MartMarkt (-21.8) and Langrein (-24.2) are the platform brands with the lowest utility. As the utility of the strong brands differs largely, this finding indicates that the brand Amazon is considered as much more relevant in the decision-making process than the brand jet.com. These results are aligned with the overall brand strong of Amazon vs. Jet.com. Both the made-up brands MartMarkt and Langrein have roughly the same utility, which means that unknown brands are rated equal and low.

This observation confirms, that when purchasing a product online, a known platform is more preferable than an unknown platform.

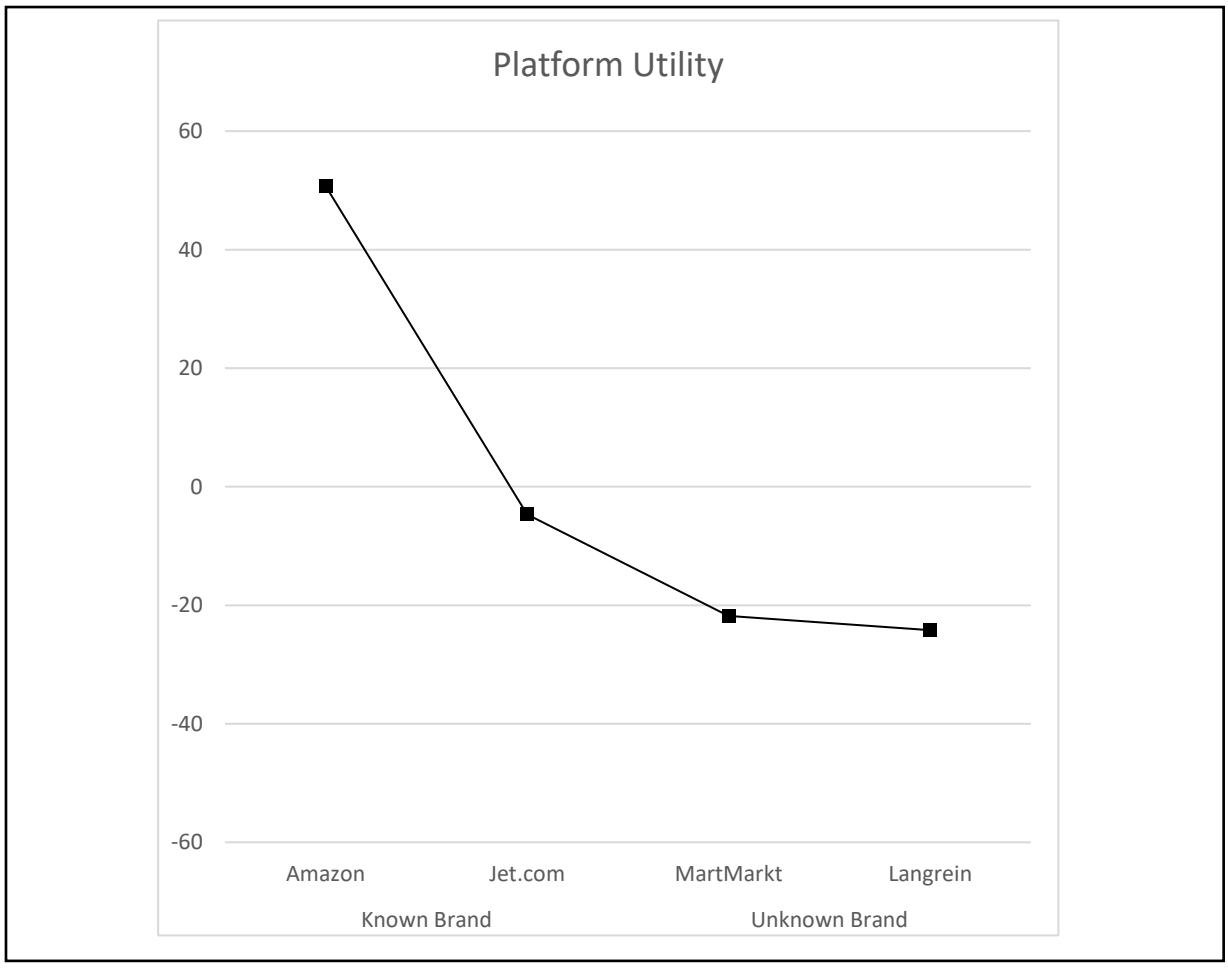


Figure 38: Platform utility, n = 104

Retailer utility

The highest retailer utility was achieved by Walmart (19.6). The second highest was achieved by Kroger. Both weak unknown brands J-Market and Maghis had a lower utility rate than the known brands. J-Market had a value of -9.9 and Maghis -18.2. These results indicate that the brand Walmart has a stronger brand impression than Kroger. Furthermore the results indicate that a known retailer has a positive utility rating in comparison to an unknown retailer. These results also confirm, that Walmart is a stronger brand than Kroger, hence a known retailer is more preferable than an unknown retailer on a digital platform.

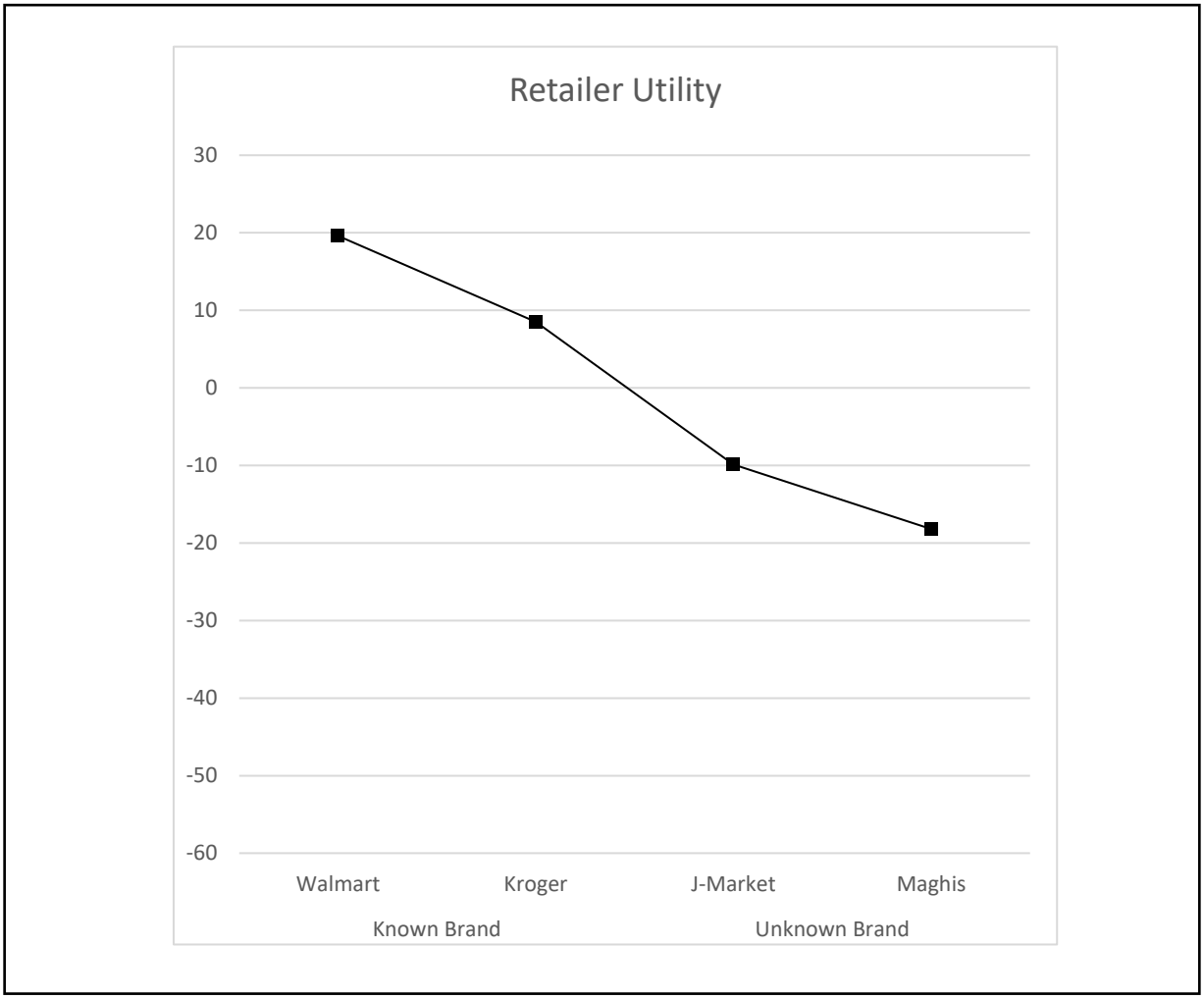


Figure 39: Retailer utility, n = 104

Product utility

The highest product utility was achieved by Duracell with 24.7. The second highest utility was achieved by Energizer. As previously described, Duracell is the most popular American battery producer, closely followed by Energizer. Furthermore, both made up brands have a utility of -18.1 (DoublePow) and -28.8 (TowEnerG).

The results confirm, that on a digital platform an unknown product brand is less preferable than a known product brand on a digital platform.

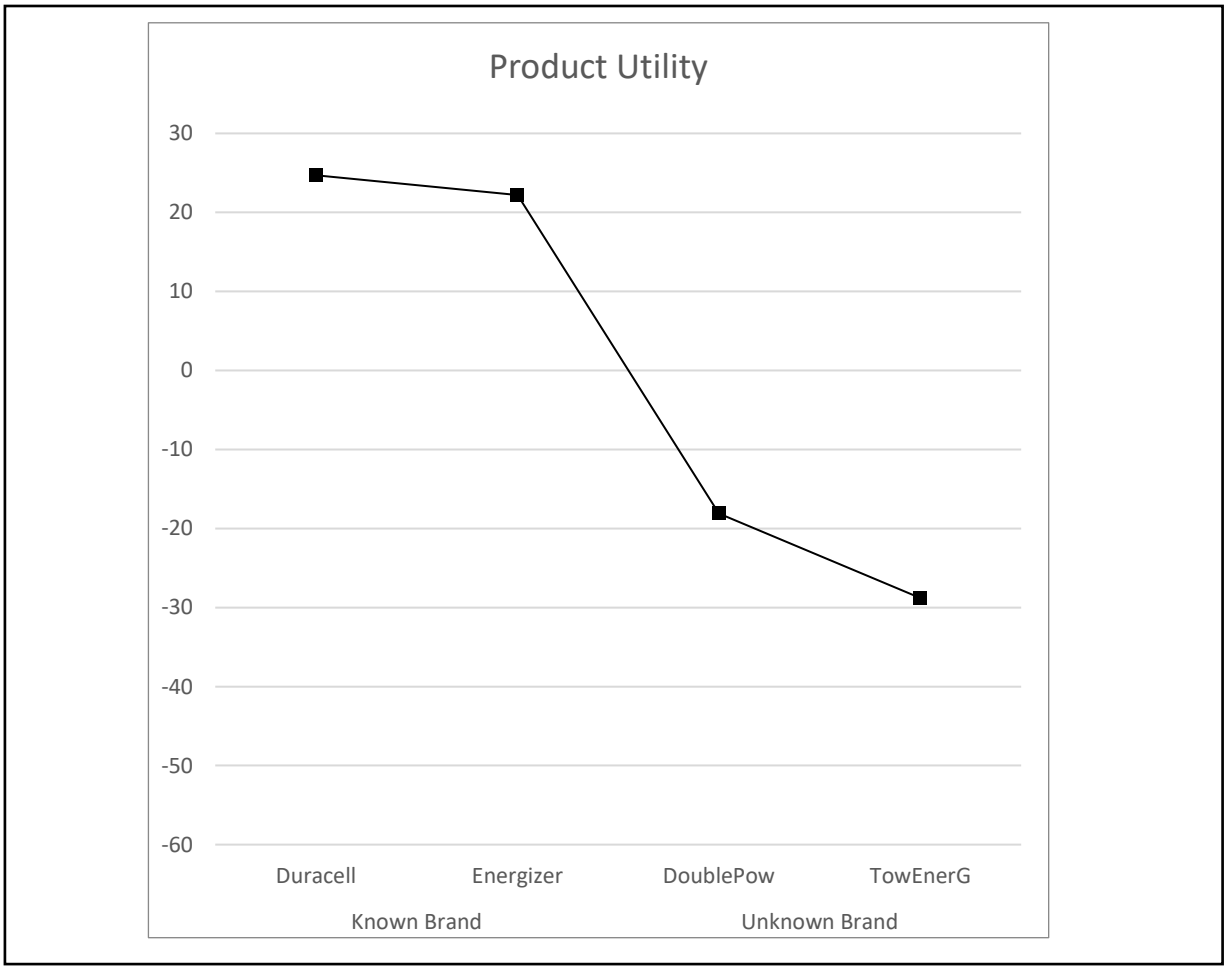


Figure 40: Product utility, n =104

Discussion

The study on the one hand enumerates utility rates of different product, platform and retailer brands and also demonstrates the relative importance of product brands, retailer brands and platform brands. In all cases the invented brands had the lowest utility rates and the known brands had a higher utility. Furthermore, the ranking of the utility was according to existing rankings found in desk research (Interbrand, 2019). The most important factor for the decision-making process in this study was the platform brand (45.07%) followed by the product brand (32.19%) and finally by the retailer brand (22.74%).

As the brand Amazon was very dominant over the brand jet.com, in the following studies all brands will be invented and described to the participants beforehand in order to be able to make the results more generalizable.

6.4 Study 4.3: Brand importance - low involvement - constructed brands

Method

The third study investigated the relative importance of product brands, supplier brands and platform brands without involving real brands to eliminate any other effects real brands may have. To do so, a choice experiment was conducted. Participants were shown different product scenarios, which together form a choice set, and were told to choose a specific option (Train, 2009, p.11). The basic idea of the choice based conjoint analysis is that consumers choose the option which yields the highest utility for them (Train, 2009, p.14). Participants were faced with a situation they could experience in real life, where they have to make trade-offs between different product alternatives.

Participants

The third study was conducted with Amazon MTurk employees. Only employees with at least 500 tasks and an approval rate of 98% were able to participate in the study. All

participants were from the US. The compensation was USD 0.7 for an expended completion time of seven minutes, which was pre-tested. In total 223 MTurk participants completed the survey. Of these ten were excluded, as they did not pass the attention test. As a result, 213 participants were included in the dataset and 156 (73%) participants were male and 57 (27%) were female. The average age was 34 years. An overview of the brands and experiment can been seen in the appendix E.

Procedure

Similar to the previous study, the choice experiment in study three was set on an online marketplace. The subject of the study was an online purchase of batteries on a digital platform through a supplier. The three attributes examined are marketplace brand, retailer brand and product brand. Each attribute had two items, one strong brand and one weak brand.

The survey was split into three parts. First the setting was explained. Participants were told to image that they wanted to purchase batteries on an online marketplace. In the first section the different brands were explained. Second the participants had to do the choice tasks, where they were shown different brand scenarios from retailers, marketplaces and products. Lastly the demographics of the participants were gathered, which included gender (female/ male), age (in years) and education. Furthermore, an attention test was included to filter out participants with random answers.

Table 18: Description of conjoint design (designed brands/ low involvement)

Overview of category, attributes and brand names

Category	Attribute	Brand Names
Marketplace brand	Existing	Digi-Store
	New	Shop-O-Line
Retail brand	Existing	Langrein
	New	MartMarkt
Product brand	Existing	DoublePow
	New	TowEnergy

Results

The relative importance of the marketplace, retailer and product brand can be seen below in table 18. The highest relative importance is marketplace brand (63%). The second most important one is product brand (21.05%) followed lastly by the retailer brand (15.6%).

Table 19: Relative importance of brands

Overview of relative importance from low involvement products

Attribute	Relative importance (%)
Marketplace brand	63.35
Retailer brand	15.60
Product brand	21.05

In the figure 41 the path-worth utilities of the six brands can be seen. All brands which were described as known had a higher utility than their unknown counterpart. However, as can be seen in the figure 41, the span between known and unknown brand is the highest at the marketplace and the lowest at the supplier/ retailer level.

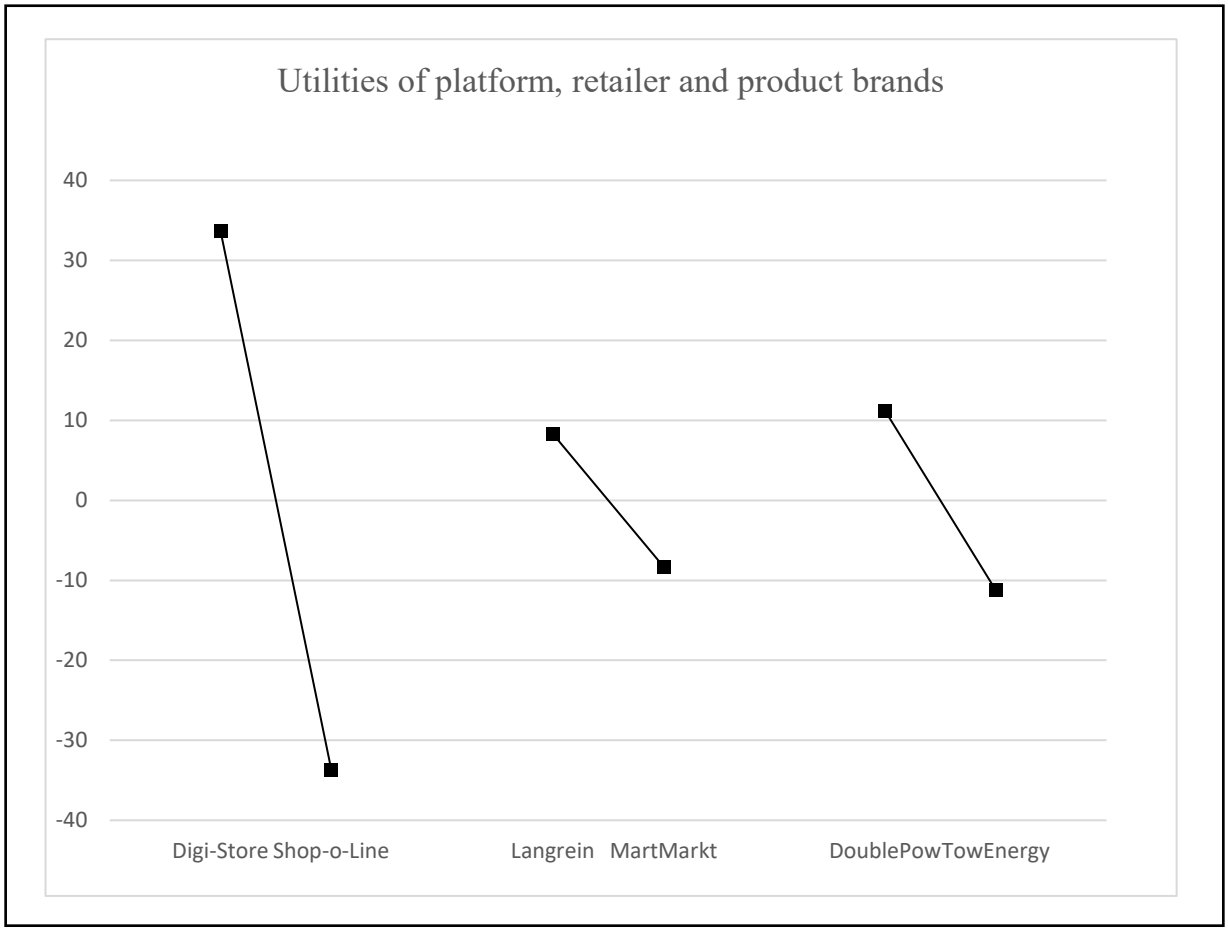


Figure 41: Platform, retailer and producer brand utility (low involvement), n = 213

Discussion

The results suggest that even with imaginary brands the platform brand is the most important one for the consumer, followed by the product brand and lastly by the retailer brand which is the least important one. This result was obtained even though the logos were all shown the same size and the product was not displayed. In a real-world setting these effects would also have to be taken into account. As the supplier/ retailer brand is often only described/ not directly visible for the end-customer, the author would presume that the importance of the retailer brand would further decrease.

In the study conducted, a low involvement product was chosen. Next the author will choose high involvement product to identify if the product brand would gain on importance.

6.5 Study 4.4: Brand importance - high involvement - constructed brands

Method

The fourth study investigated the relative importance of product brands, supplier brands and platform brands during the purchase of a high involvement product. The study was based on the previous study three, only the product category was changed (the purchase of a TV-set instead of batteries).

Participants

The third study was conducted with Amazon MTurk workers. Only workers with at least 500 tasks and an approval rate of 98% were able to participate in the study. All participants were from the US. The compensation was USD 0.7 for an expended completion time of seven minutes, which was pre-tested. In total 241 MTurk participants completed the survey. Of these 17 were excluded, as they did not pass the attention test or did not complete the whole survey. As a result, 224 participants were included in the dataset and 139 (62%) participants were male and 85 (38%) were female. The average age was 35 years.

Procedure

Similar to the previous study, the choice experiment in study three was set on an online marketplace. The subject of the study was an online purchase of a TV-set on a digital platform through a supplier. The three attributes examined are marketplace brand, retailer brand and product brand. Each attribute had two items, one strong brand and one weak brand. An overview of the brands and logos can be seen in the appendix E.

The survey was split into three parts. First the setting was explained. Participants were told to imagine that they wanted to purchase a TV-set on an online marketplace. In the first section the different brands were explained. Second the participants had to do the

choice tasks, where they were shown different brand scenarios from retailers, marketplaces and products. Lastly the demographics of the participants were gathered, which included gender (female/ male), age (in years) and education. Furthermore, an attention test was included to filter out participants with random answers.

Table 20: Description of conjoint design

Category, attributes and brands used in the conjoint study

Category	Attribute	Brand Names
Marketplace brand	Existing	Digi-Store
	New	Shop-O-Line
Retail brand	Existing	Langrein
	New	MartMarkt
Product brand	Existing	Fernsan
	New	TeeVee

Results

The relative importance of the marketplace, retailer and product brand can be seen below in table 20. The highest relative importance is the marketplace brand (63%). The second highest importance is the product brand (21.05%) and lowest is the retailer brand (15.6%).

Table 21: Relative importance high involvement product

Marketplace, retailer and product importance in high involvement case

Attribute	Relative importance (%)
Marketplace brand	67.89
Retailer brand	3.25
Product brand	28.86

In the figure below the path-worth utilities of the six brands can be seen. All brands which were described as known had a higher utility rating than their unknown counterpart. However, as can be seen in the figure 42, the span between known and unknown brand is the highest at the marketplace and the lowest at the supplier/ retailer level.

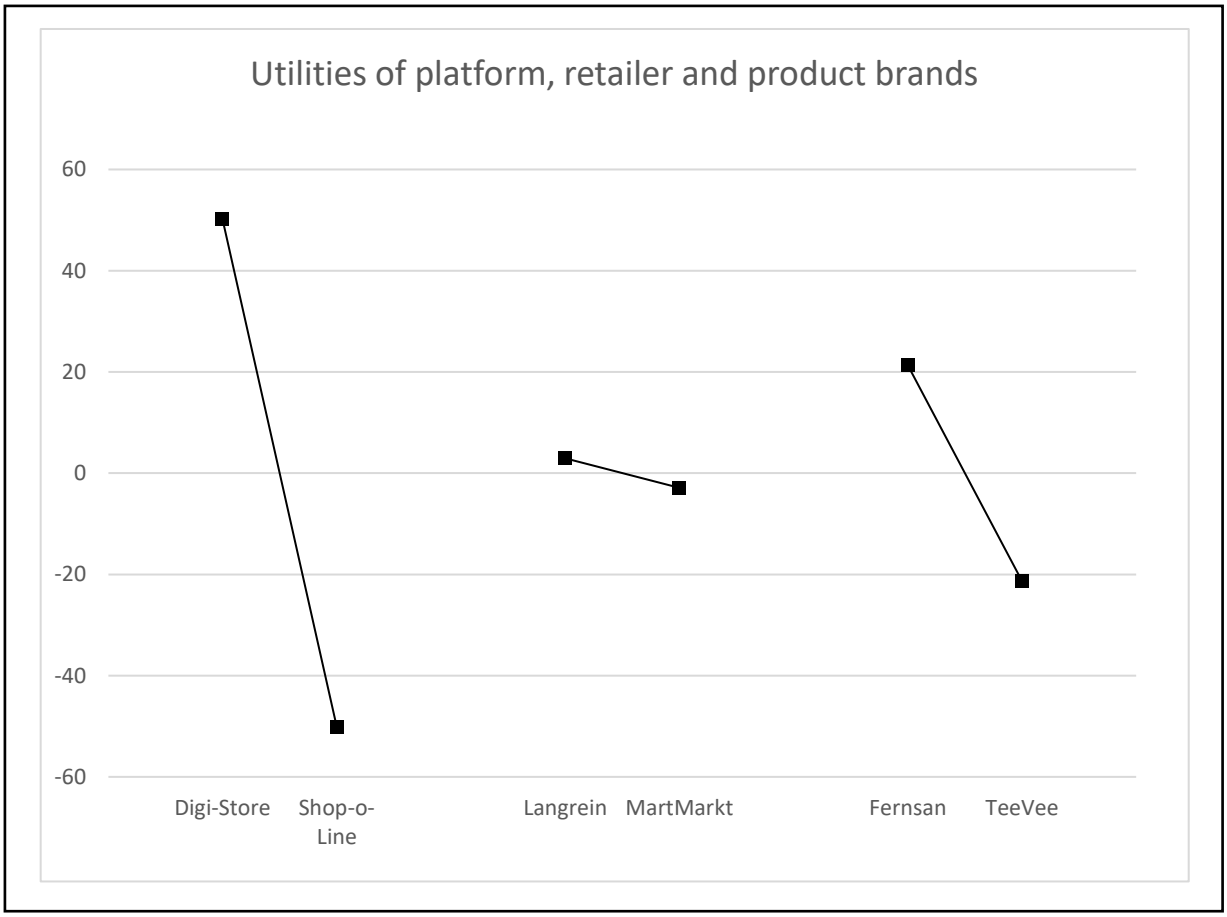


Figure 42: Platform, retailer and producer brand utility (high involvement), n =224

Discussion

The results of this study suggest that with imaginary brands in the scenario of purchasing a TV-set online, the platform brand is most important for the consumer, followed by the product brand and the retailer brand is the least important factor. As in the previous study, the product was not shown and merely the three brands were displayed. In a real-world setting the product would be shown and thus the product brand may have an increased importance. On online marketplaces the supplier brand is often only mentioned and not shown with his logo. These findings imply that the supplier brand would presumably be even less important for the consumer.

In the following the results, theoretical and managerial implications from all four studies will be discussed.

6.6 Managerial implications

The studies have multiple managerial implications which will be split into three parts: First the platform perspective will be taken into account, then the supplier perspective and lastly the producer perspective.

Platform perspective

In all studies conducted, the most important factor in the conjoint analysis was the brand of the platform. This finding shows that the brand of the platform is important for the consumers. Consequently, digital platforms should actively communicate their brand in order to become relevant for potential customers. Even though the platform does not sell or produce any products and has no influence on the product, its brand is still highly relevant. The studies also show that unknown platform brands have a strong negative parth-worth utility, meaning that an unknown platform brand is undesirable for both supplier and producer brands. Platforms which consumers do not know are considered by them as not trustworthy. Managers should consider the costs and complexity of building a platform brand when considering building a digital platform. Due to some

examples of highly successful platforms (Amazon, Zalando, etc.) multiple start-ups and corporate initiatives have started to build digital platforms around their core business. However, multiple approaches have failed, such as Siroop and one factor may be the high costs of marketing the platform. Having strong supplier and product brands may not be enough.

The studies also show that the brand of the suppliers is the least relevant of the three. When considering a partnership with suppliers, platforms should rather choose suppliers with a large portfolio of products or suppliers with the cheapest price. The decision with which suppliers a platform should collaborate should not be made based on the brand of the supplier. The platform should rather consider factors such as portfolio of products the supplier can offer, or logistics/ technological capabilities or price of products. Platforms should also consider contacting the producers directly in order to eliminate the middleman / supplier from the value chain. This is only possible if the platform has partnerships with logistics companies / enablers or has the technological capabilities to take care of the distribution. Amazon for example has their own logistics network and can potentially integrate producers directly. However often intermediaries in the form of suppliers still exist, as they on the one hand carry the risk of selling the products and on the other hand have the capabilities and technology to integrate on the platform. Especially producers which previously have had an indirect distribution channel (distribution e.g. via retailers) have no capabilities for direct to consumer distribution or distribution via digital platforms.

Lastly the study shows a difference in high and low involvement products purchased on platforms. The relative importance of the product brand is higher with high involvement products and lower with low involvement products. This concurs to current literature on the topic of high and low involvement products (Lastovicka & Gardner, 1978). Consequently, the strategy for digital platforms should be on the one hand to integrate strong brands from high involvement products and on the other hand create white-label product brands for low-involvement products. This scenario can be seen on Amazon, where many low-involvement products are being created and sold by Amazon directly. Amazon even offers Amazon basic batteries at a much cheaper price.

All in all, the studies show that if a platform has established a brand, this brand can potentially represent the most important variable in the purchase decision of consumers.

Retailer perspective

In all conducted studies, the brand of the retailer had the least relative importance. These results may have a considerable impact on the strategy of suppliers using digital platforms as a distribution channel.

First suppliers should always consider that their brand is the least important factor when a customer purchases a product online via a platform. Thus, suppliers should find other ways of distinguishing themselves from the competitors than their brand. In the following multiple approaches of differentiation strategies on platforms will be listed.

(1) Exclusivity: In order to differentiate their product offering on digital platforms, suppliers can try to obtain exclusivity deals with platforms for certain product brands or categories.
(2) Price: In some cases, suppliers can offer products at a lower price than their competitors. However, this differentiation often can start a “rat-race” in pricing (S10).
(3) Retail media: Retail media, the possibility to advertise on digital platforms is a rapidly growing field in the advertising field. The intelligent and agile use of retail media can lead to a significant difference, as the CEO of Chamoon claims (S5).
(4) Logistics: The differentiation via logistics can be a possibility for suppliers. However, this strategy can be very cost intensive and often platforms offer logistics as a service, such as the Amazon fulfilment centre (Houde, Newberry, & Seim, 2017).
(5) Enabler: Lastly, suppliers can try to transform themselves to a technology enabler for producing companies. Often producers do not have the capabilities to

integrate their products on platforms. In these cases, suppliers are needed to consolidate and integrate producers on platforms.

Furthermore, suppliers also have other strategies how to deal with the distribution on digital platforms.

(1) Lead generation: Offering some products or services on digital platforms can be an excellent tool to develop customer leads. The swiss insurance mobiliar for example has selected insurances on online platforms. As soon as a customer purchases an insurance, mobiliar receives the customer data and has the possibility to upsell other solutions.
(2) Trend scouting: Digital platforms are excellent tools to identify current and future consumer trends. Especially in trend-driven industries such as the fashion industry, online platforms can be good trend scouting places.
(3) Suppliers are the new brokers: The largest suppliers on Amazon are mostly unknown brands. Some suppliers have adapted a new business model, where many products are tested on online platforms and if one product is successful a brand is quickly created, and the product offered. KW Commerce is an excellent example. Their teams rapidly test products on Amazon in small batches. Should there be a demand, they brand the successful products (mostly produced in China or Asia) and sell these in larger scale (Graf, 2015).

All in all, the role of retailers has been changed through digital platforms. Platforms bear great risks and opportunities for retailers. The largest risk for retailers is that platforms skip out the middleman (supplier), make the position of the retailer obsolete and directly integrate the producers. However, platforms also have a great distribution opportunity for suppliers. In order to survive, retailers have to accept that platforms are new competitors which can possibly enable producers to directly sell to their customers.

Producer perspective

The brand of the product was the second most important aspect for consumers. These results also have implications for producing companies.

First, producing companies should consider the collaboration strategy with their suppliers which are selling products on platforms: The brand of the supplier is not important. Rather producers should seek complementary partners, which either can offer logistics or technological enablement on multiple platforms.

Second, producing companies should also consider direct distribution of their products via digital platforms. Suppliers often only act as middlemen with no further value generation. In these cases, producers should seek the direct distribution and connect with the platform. However, suppliers can also be used to hedge the risk of the acceptance of products, as is the case with Wucato (P25).

Third and last, producers should regularly test if their product is considered a low or high involvement product and conduct ongoing consumer tests on marketplaces. For low involvement products the product brand is less important on platforms than high involvement products. Consequently, the differentiation strategy of low involvement products should be based on the supply-chain / price side and the differentiation strategy at high involvement products should be done via active branding. However, this branding has to take place earlier in the customer journey, before the customer has made the decision to purchase the product on a platform.

6.7 Theoretical implications

The four studies conducted have various different theoretical implications. In the following the different fields of contribution will be elaborated.

The first study shows that the recall of products on online platforms is significantly higher than the recall of suppliers (retailers) in the case of soft drinks being purchased online. This finding shows that the customer pays more attention to the brand of the product than to the brand of the supplier and implies that the supplier brand is not as relevant for the consumer as the retailer brand. This insight extends the exiting literature on the relationship between retailer brands and product brands in an online setting (Aghekyan-Simonian, Forsythe, Suk Kwon, & Chattaraman, 2012). Specifically, the study opens a new field of research and multiple research questions, as on a marketplace, such as Amazon, three brands can be relevant for the consumer: the platform brand, the retailer brand and the product brand. This first study suggests that the product brand is more important than the retailer brand. Further research should be conducted whether the willingness to pay or purchase intention on online marketplaces is more influenced by the retailer brand or by the product brand.

The second study shows that the brand Amazon is a very dominant entity in questionnaire studies. Multiple studies have been conducted using the brand Amazon as an example. However, the study conducted in this thesis suggests that the brand Amazon is extremely dominant and much more relevant than its competitors (such as jet.com). During experiments with the brand Amazon researchers should consider this dominance which might skew results of other studies. Platforms are winner-takes-all markets and further research should explore whether this is also the case for brands (“Winner-takes-all brands”). Also, this study suggests that the platform brand has the highest relative importance, followed by the product brand and last the supplier brand. This study also supports the results from the first study, which could show that consumers pay more attention to the product brand than the retailer brand. Further research should be conducted in other product categories and shopping cases, e.g. the online purchase of clothing on the marketplace otto.de.

The third study, which was conducted based on the results of the second study examined how consumers evaluate brands from platforms, suppliers and producers in a controlled online setting. The results concurred with the results from the previous study: Consumers care most about the platform brand, then the product brand and last the retailer brand. These results respond to calls in literature (call for paper: Journal of Consumer Research) and show first results to branding in mediated environments. Also, this study extends on the existing literature of brand alliances (Newmeyer, Venkatesh, & Chatterjee, 2014; Simonin & Ruth, 1998). Most platforms partner with their suppliers and producers as a "Co-Location", where each partner has a physical and functional independence (as can be seen in the brand alliance figure 7).

Fourth, the third and fourth studies suggest that there is a difference in brand importance between purchasing a low involvement product (batteries) and a high involvement product (TV-set) online. The supplier brand becomes even less relevant and the product brand more important. The higher the involvement in a product, the more relevant the brand becomes in a purchase decision (Radder & Huang, 2008). However, this is not the case on online marketplaces for retailer brands, which become less relevant.

Conclusion and future research

All in all, the quantitative study sheds light on how customers evaluate brands of platforms, retailers and producers. These studies show that the brand of the platform has the highest relative importance and the supplier brand has the lowest relative importance. These studies are first results on which further research can be conducted. Further studies should examine the long-term effect of brands on digital platforms. It would be interesting to investigate, whether the relative importance of platform brands, supplier brands and producer brands changes over time. Furthermore, other product categories should be examined. One study for example could examine the purchase of a holiday via platform versus travel agency or the purchase of an insurance via a broker platform or insurance agency.

In the following chapter the results of all studies conducted in the dissertation will be converged and critically discussed.

7. Convergence of results

The goal of the dissertation was to gain a deeper understanding of the dyadic relationship between digital platforms and their suppliers from a marketing perspective. To do so, three different perspectives were selected and analyzed: platform, supplier and consumer perspective.

First a single holistic case study of a platform was conducted to identify issues in the collaboration between suppliers and platforms. Second the platform perspective was examined and crucial aspects in the collaboration between suppliers and platforms identified. In the third step, the different modes of collaboration with platforms were discussed. In the fourth and final step, consumer studies were conducted to gain a deeper understanding how consumers evaluate platform, retailer and producer brands.

In the following, the results of the dissertation are summarized and implications for academia and practice are drawn. Both the supplier and platform perspective are taken into account. Next a management plan for successful collaboration scenarios is outlined. Finally, opportunities for further studies in the topics of collaboration between platforms and suppliers are outlined, followed by the overall conclusion.

7.1 Implications for research

The results of the studies conducted in this dissertation answer the guiding research question and sub-questions. The findings contribute to the existing literature in the fields of digital platforms, company alliances and brand alliances.

7.1.1 Research contribution

Guiding research question: How do platforms and suppliers leverage each other in a dyadic relationship?

Digital platforms cannot exist without suppliers and vice versa suppliers often cannot exist without digital platforms. Consumers are adapting to the convenient market intermediary interfaces which aggregate suppliers and reduce transaction costs. The dissertation shows that there are three different modes of collaboration between platforms and suppliers regarding branding. The first case is a branded platform, where the branding is dominated by the platform (the case of UBER). The second case is a hybrid branded platform, where both platform and supplier have brands relevant for the consumer (Zalando & Adidas). The last case is a platform of brands, where the brand of the supplier is dominant (Redbull & Shopify). The dissertation also shows, that the collaboration between platforms and suppliers may occur during all phases of the customer journey. Platforms can occur in the pre-purchase, purchase and post-purchase phase for a supplier. Successful platform/ supplier collaborations evolve, when platforms can offer customer access, supplier access or technology access.

Finding 1: Platforms and suppliers can collaborate in the modes of a branded platform, hybrid branding or a platform of brands.

Finding 2: Platforms and suppliers can collaborate in all three phases of the customer journey.

Finding 3: Successful collaborations evolve, when platforms can offer customer access, supplier access or technology access or a combination thereof.

Research question 1: How can platforms leverage their suppliers?

Previous research had already shown that platforms can increase their growth by opening a platform for suppliers (Hagiu, 2014). The results from this dissertation show, that there is a trade-off between granting access to a platform and giving authority to the suppliers. Successful platforms have shown to be moderately balanced between open access and open authority. Second the thesis could show that platforms can leverage suppliers without their consent. Prominent examples are rating websites, such as yelp or tripadvisor. Often platforms evolve in the pre-purchase customer journey and expand to

the purchase/ transaction touchpoints. Tripadvisor started off as a rating system for websites, but later transformed into a booking system for websites. Depending on the development phase of a platform, the dependence of suppliers differs. In the launch phase platforms seek to create value without network effects, during the growth phase platforms create value through network effects and in the maturity phase, platforms create value through further products and services.

Finding 4: There is a trade-off between grating access and authority on a platform.

Finding 5: Platforms can leverage suppliers without their consent.

Finding 6: Supplier collaboration differs in the three phases of a platform (launch, growth, maturity)

Research question 2: How can incumbents leverage digital platforms?

Suppliers from all industries are facing the novel business model of digital platforms. This dissertation has developed a deeper understanding of the strategies which incumbents / suppliers of platforms can chose. More specifically there are four strategies, which are summarized as COPE: Collaboration, opposition, participation and establishing. The collaboration strategy, when multiple incumbents join forces to build a platform, is advisable when partners have complementary skills, especially market knowledge and platform competencies. The opposition strategy, when incumbents prohibit platform participation, is only possible with strong direct to consumer touchpoints/ a strong direct to consumer brand. The participation strategy, when incumbents join platforms as suppliers, is the most frequent strategy and should be followed with strict OKRs on which products should be sold via which platforms. And finally, the establishing strategy, where incumbents build or buy a platform, is risky. Practice has shown that the platform should be detached from the core business to allow flexibility.

Finding 7: There are four strategies for incumbents to COPE with platforms. (Collaborate, Oppose, Participate, Establish)

Finding 8: Collaboration – Incumbents should find complementary partners (at least one partner with industry knowledge and one with platform knowledge)

Finding 9: Opposing – Only strong direct to consumer companies can decide not to participate on digital platforms.

Finding 10: Participation – Most companies have to participate on platforms. It is important for companies to monitor where and how in the customer journey participation takes place.

Finding 11: Establishing – When incumbents establish their own platform, they should separate the business unit from the core company, as cannibalization effects will take place and lead to internal conflict which will slow growth.

Research question 3: How do consumers evaluate the collaboration between platform and supplier?

In the last part of the dissertation, customers were asked to evaluate brands of digital platforms and their suppliers. First, the author could show, that when purchasing a product on a digital platform, the brand of the supplier is less relevant than the brand of the product. Second the author could show, that in a scenario with real known brands, the platform brand is more important than the product brand followed by the supplier brand last. Third the authors could show, that both for low and high involvement products, the platform brand has the highest relative importance followed by the product brand and lastly the supplier brand.

Finding 12: Consumers pay significantly more attention to the product brand than the supplier brand.

Finding 13: With known and unknown brands, the platform brand has the highest relative importance, followed by the product brand and lastly the supplier brand.

Finding 14: In both the cases of high and low involvement products, the platform brand has the highest importance, followed by the product brand and lastly the supplier brand.

7.1.2 Contributions to scientific literature

Contribution to the field of digital platforms

This thesis makes four main contributions to the scientific literature in the field of digital platforms. First, the dissertation provides a comprehensive understanding of the three major success factors of digital platforms from a marketing perspective: technology, customer and supplier access, which follows the call from Verhoef et. al. (2019). Second the thesis expands on existing research, regarding the trade-off between access and authority on digital platforms (K. Boudreau, 2010), through both quantitative evaluation of successful platforms and qualitative interviews. The thesis also provides an explanation why this trade-off exists: The quality control of suppliers has to take place at the beginning or continuously. Third, the dissertation contributes to research regarding the roles of brands on digital platforms. Previous studies did not consider the role of supplier brands and examined platforms from a technological perspective (Benlian et al., 2015; T. R. Eisenmann et al., 2009; Wessel et al., 2017). This dissertation sheds light which branding options digital platforms have: Platform based branding, hybrid branding or supplier branding. Fourth, the dissertation shows where and how digital platforms can play a role in the customer journey building on the research of Lemon and Verhoef (2016, p.83). The author could show that digital platforms can evolve at any point in the customer journey and the supplier participation can be both active or passive. Often customers use multiple platforms in a single customer journey.

Contribution to the field of brand alliances

The dissertation has three major contributions in the field of brand alliances. First, it follows the call for paper from the Journal of Consumer Research, which calls for a deeper understanding how “brands gain and lose meaning, particularly in mediated

environments" (JCR, 2020). The experiments the author conducted have shown that when multiple brands are shown to the consumer in the case of purchasing a product online via a digital platform, the brand of the platform is more important than the brand of the product and the brand of the supplier. Second the author also proposes a new model for brand alliance types between platforms and suppliers, explaining the different modes of brand collaboration, with supplier based, platform based and hybrid branding. Lastly the dissertation opens a new field and raises multiple questions on the role of brand alliances in the case of digital platforms.

7.2 Implications for practice

The results from the dissertation provide specific recommendations for managers of both traditional pipeline companies and managers of platform companies. First the managerial implications for platform companies will be discussed and then the implications for pipeline companies.

7.2.1 Implications for platform company managers

Converging the results from the different studies conducted in the thesis, the relevant strategic decisions at the three major phases of digital platforms can be derived. In the following, first an overview of the relevant decisions will be given and then each decision discussed. This overview can be used as a guiding decision-making tool and discussion framework for digital platforms and incumbents wanting to transform into digital platforms.

Table 22: Overview of decisions for platform managers

Strategic decisions for digital platform managers
1. Development & launch phase: - Market analysis - Core unit of interaction - Onboarding of suppliers - Value sources - Branding of platform - Matchmaking - Chicken & Egg
2. Growth phase: - User based growth - Matchmaking based growth
3. Maturity phase: - Building products on platforms - Building ecosystems on platforms - Automating suppliers

Development and launch phase

Market analysis

The first step during the development and launch of a potential digital platform is to evaluate the potential market. Marketing managers should use the five indicators provided in figure 10 to evaluate the market potential for platforms, which are: market fragmentation, transparency (price/ offer), digitization, regulation and asset intensity. All successful platforms have had characteristics from one or multiple indicators.

Core unit of interaction

After deciding on a specific market, the next step is to identify the core unit of interaction of the digital platform. The interaction unit can be a product (in the case of Amazon) or information (in the case of google ads). Key is to describe who the supplier on a platform is, who the customer is and what unit is transferred.

Onboarding of suppliers

The thesis could identify two relevant onboarding strategies for suppliers. The first strategy is to onboard as many suppliers as possible, however leave the level of technical integration low and after time offer more products and services to integrate into the supplier. The second strategy is to integrate few suppliers deeply, meaning that the platform offers multiple value sources and also stand-alone products for the supplier and then gradually grow and add further suppliers.

Value sources

There are three fundamentally different value sources of digital platforms. The first is technology access, the second is customer access and the third is supplier access. For a successful platform at least one of these should be in place.

Branding on platforms

In the launch and development phase, managers should decide how the branding on their platform should take place. There are three different branding options for digital platforms. The first is platform-based branding, the second is hybrid branding and the third is a branded platform. Depending on the exchangeability of the product and strength of the supplier brand, different ways can be chosen.

Matchmaking

There are three different matchmaking options digital platforms can provide. The first is double committed matchmaking, the second is buyer picks matchmaking and the third is marketplace picks matchmaking. All three of the matchmaking mechanisms have their distinct advantages and disadvantages as summarized in table 9.

Chicken & Egg

The “Chicken & Egg” problem, often mentioned in the interviews, is a key problem platform developers have to solve. The dissertation shows some examples mentioned in the interview. However often creative solutions have to be found and there is no “one-size-fits-all” method. The description of successful some strategies can be found in chapter 4.4

In the following the two strategic decisions regarding suppliers in the growth phase will be elaborated.

Growth phase:
There are two different mechanism for digital platforms to grow. The first is user-based growth and the second is matchmaking-based growth. Both should be considered during the growth phase.

User based growth
The first growth mechanism for digital platforms in the growth phase is to grow by adding users. Users on digital platforms can be either suppliers or customers. However, when adding users, the ratio between suppliers and customer is crucial. Users have to be added on both sides. Having an imbalanced ratio between suppliers and customers will lead to users leaving the platform. For example, if a ride hailing platform has very little taxi drivers and many customers, the waiting time for the customers will be very long and lead to customers leaving the platform. The same phenomenon can happen when there are too many suppliers on a platform and too little users. In the case of the ride-hailing platform, too many taxis and too little customers will lead to taxi drivers leaving the platform, as the waiting time for customers will be very long. Thus, it is important to understand which ratio of suppliers and customers a platform has to have. Practice has shown that often platforms pay either the customers, suppliers or both to participate and stay on the platform during the early growth stage. When UBER e.g. expands into a new city, they pay their drivers a fixed income, independent of the number of passengers they transport in order to keep the driver on the platform. This is one reason why digital platforms are very capital intensive.

Matchmaking based growth
The second growth mechanism is to improve the matchmaking between customers and suppliers. The basic idea is to increase the number of transactions between existing customers. For example, online retailers introduced recommendation engines, which propose further products for customers. Also increasing the customer experience on

platforms lead to lower drop-out rates during the sales-funnel. Booking.com has regular website optimization in order to decrease the drop-out rate of potential customers. Also, amazon introduced the one-click purchase button to decrease all potential drop-out touchpoints and make the purchase process as seamless as possible.

Digital platforms in the growth phase should keep both growth mechanisms in mind. The decision on which mechanism to focus on should be derived from the customer acquisition costs and the improved matchmaking costs. If acquiring of a customer is expensive, it often makes more sense to increase and improve the matchmaking to profit more from existing users. On the other hand, if improvements in matchmaking is expensive and does not yield improved results, the purchasing of new customers (through, e.g. “recommend a friend” or other customer acquisition tools) can make more sense.

Maturity phase:
In the maturity phase, where both customer acquisition and matchmaking improvements are expensive, platforms have three different strategies to grow: Building products on platforms and building ecosystems around platforms. In the following both strategies will be described.

Building products on platforms
The first strategy for platforms which have reached the maturity level is to build products on digital platforms. As discussed in chapter 4.4 platforms start to offer their own products and services and transform part of their business model into a pipeline business model. Zalando and Amazon are two prominent examples. After reaching a certain size both platforms started offering their own products on the platform. This trend can also be seen in other industries. Platforms have two advantages when following this strategy. First, they already have the customer base/ access and second they can choose which products and services to offer based on e.g. profitability, based on the aggregated data.

Building ecosystems on platforms

The second strategy for platforms which have reached the maturity stage is to build an ecosystem around a digital platform. An ecosystem is a loose cooperation between multiple organizations, institutions and individuals with a “joint fate” across multiple industry boarders (Jacobides et al., 2018). The mobility companies BlaBlaCar and FlixBus have both started to integrate multiple modes of transportation, insurance and products to their existing platform. FlixBus partners with food suppliers to sell snacks during their journey. BlaBlaCar offers insurances for the participating drivers. Movu is offering their touchpoints to insurance companies, as when people move, they often change their insurance. The product owner from Comparis also stated we want to build the “decision making ecosystem” for all Swiss consumers. The vision is to help consumers in their most important purchase decisions.

In summary, digital platforms have different collaboration dependencies with their supplier in the three different phases. During the growth phase the dependencies from the network effects is the highest and in the maturity phase platforms try to become less dependent from these effects.

7.2.2 Implications for pipeline company managers

Apart from offering recommendations and insights for platform managers, the dissertation also offers implications for pipeline company managers. First the platform management framework will be explained and then the four strategies how incumbent companies can deal with digital platforms elaborated.

One result of the dissertation is the platform management framework seen in figure 39. Companies should be aware that digital platforms can evolve in all three phases of the customer journey (pre-purchase, purchase, post-purchase). The participation on platforms can be active (when the incumbent actively takes part on a platform) and passive (when the incumbent passively takes part on a platform). It is also possible for incumbents to participate both actively and passively on the same platform.

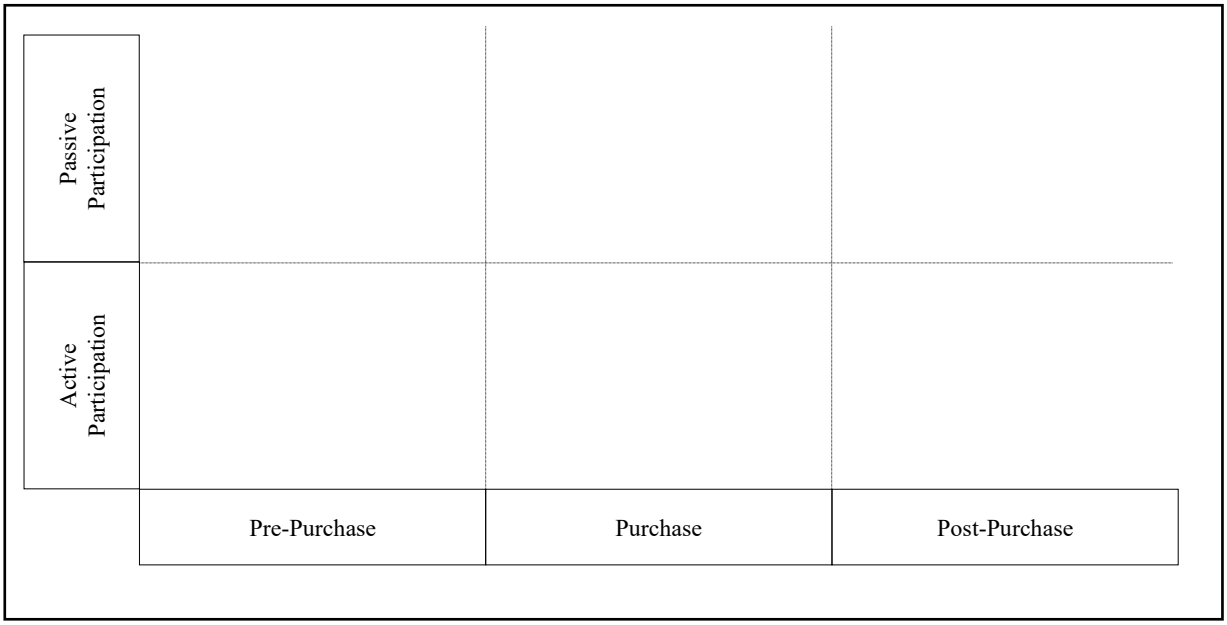


Figure 43: Platform Management Framework

In the following examples for which platforms can be relevant in all the six cases will be mentioned and discussed.

Pre-Purchase

Passive Participation

Pre-Purchase passive participation often takes place on online-review / rating platforms such as the restaurant review website tripadvisor or yelp. Restaurants are participating on a digital platform passively as they have no or only very limited control over the content provided. Companies should be aware that the need recognition and consideration of their products may start on a platform where they are passively participating. Practice has shown that platforms often start in the passive pre-purchase phase and later expand into the purchase phase (eat.ch first listed all the restaurants – pre-purchase phase, and later integrated booking – purchase phase). To sum it up, companies should monitor the major pre-purchase passive platforms to identify issues, receive feedback and generate leads.

Active Participation

Social media platforms such as Facebook and Instagram and also search engines offer companies the possibility to actively participate on digital platforms in form of

promotion and advertising of their products. Here the platform - product fit is very important. For example, B2B products should be promoted on the professional network LinkedIn and not on Facebook. Mostly platforms offer useful services and tools to target a specific audience (such as the Facebook lookalike function). Active participation in the pre-purchase phase is also a great opportunity for companies to lead their consumers to a direct purchase. For example, adidas promotes their own webshop on Facebook in order to lead consumers to their own store and not to Zalando.

Purchase

Passive Participation

Passive participation in the purchase phase is when products of companies are sold on digital platforms. In the purchase phase passive participation can lead to a cannibalization and heavy price competition between different channels. Producers should have a clear understanding where and on which platform their products are being sold. Some companies even prohibit passive participation to their partners on digital platforms (such as Birkenstock on Amazon). In some cases, retailers purchase products and offer these on as many platforms as possible, which may lead to a decreased customer experience (if e.g. Nike shoes are sold on real.de, some consumers may be disturbed, as these are shown next to cheap brands). Also, often platforms begin as passive platforms and later transform into active platforms.

Active Participation

Active participation in the purchase phase are the most prominently known. Their core function is to facilitate a purchase of a product or service between customers and suppliers. Participation on such marketplaces has the advantage of a further sales channel with an increased reach. As discussed in chapter five, the participation may lead to a loss of brand relevance in the case of suppliers. Examples are the active participation of Hugo Boss on Zalando, where even the logistics are planned together and more than mere drop-shipping takes place. The active participation also depends on the products and services a platform can offer. The online marketplace of Douglas e.g. does not offer logistics or service solutions.

Post-purchase

Passive Participation

Passive post-purchase participation takes place, e.g. when consumers share and discuss their experiences of products via a platform. These platforms can be product specific or general. An example for a product specific post purchase platform is motor-talk.de, a German automobility exchange forum, where people can share their experiences about cars. Often consumers in the pre-purchase phase connect with post-purchase customers to receive reviews of their experiences. Incumbents should be aware that the customer can still generate or decrease value for the brand after the purchase. Bad customer experiences lead to bad reviews on passive participation platforms, which subsequently will lead to potentially less customers purchasing the product. Companies should monitor their passive participation and receive valuable feedback.

Active Participation

Lastly active participation during the post-purchase phase takes place when companies actively participate on a platform after the consumers have purchased their products. Often consumers may have questions and comments about their product experience. It is important for companies to actively participate and shape the post purchase customer experience. Customers today expect a seamless customer journey even after the purchase of a product.

This managerial framework and platform mapping tool can help companies evaluate their current situation regarding digital platforms. In the following the COPE concept can help companies evaluate how to deal with the different platforms along the customer journey.

Incumbent, non-platform, pipeline companies have four strategies how to deal with digital platforms, which can be summarized in the acronym COPE: Collaboration, opposition, participation and establishing.

Collaborate

Collaboration takes place, when multiple incumbents join forces to build their own digital platform. Here complementary capabilities play an important role for success. At least one partner should have market knowledge and one partner information technology competencies.

Oppose

Opposition of digital platforms is actively not participating on digital platforms and boycotting the usage. This strategy makes sense for strong brands, which want to be in control of their customer experience. Most luxury brands do not want to be listed on Amazon, next to possible counterfeited products.

Participate

Active participation on digital platforms has to be aligned with the current distribution strategy. It is important not to cannibalize existing sales channels. All companies will have to actively participate on digital platforms at some point during the customer journey.

Establish

Establishing an own digital platform has been a recent trend in practice. Douglas, Würth and Lanxess, to name a few examples started their own marketplace. The results from this thesis indicate that in order to become successful, the platforms have to be a sperate unit from the core mother company, as the business model will lead to internal conflicts of channels. Also, competitors might be reluctant to join a platform from a direct competitor.

7.3 Limitations and opportunities for future research

All in all, the results of the dissertation open various opportunities for future research in different fields. Examining digital platforms from the holistic view (interaction between suppliers, platform and customers) has shown to be a suitable perspective for digital platform research. Further, the experiments in online purchase environments open multiple new approaches for analysis of the interaction between brands / brand alliances. Among others there are three major future research opportunities in the field of digital platforms. Since many of the studies in the dissertation were explorational, further studies based of the results could enrich the field of platform success. First, a longitude study of the evolvement of digital platform success would be useful. The studies in the dissertation indicate, that platforms evolve at one point in a customer journey and expand into other parts to gain more touchpoints. A further in-depth study of the evolvement of platforms over time can identify new potential platform touchpoints. Second, further studies can concentrate on the capabilities necessary for the different COPE (collaboration, opposition, participation and establishing) strategies. Incumbents can increase their capabilities with each strategy. Third, a differentiation of industries where platforms evolve is interesting. As mentioned in the interviews, some markets have evolved more quickly than others. A differentiation between B2B and B2C platforms constitutes as a good starting point, as could be seen in the interviews from chapter 4.

The dissertation also offers multiple opportunities for future research in the field of brand alliances. The studies indicate that consumers care most about the brand of the digital platform, then the product brand and last the supplier brand. However, in the studies only B2C online marketplaces were examined. Future studies are needed for platforms in other industries. For example, studies could examine the importance of the product brand on mobility platforms or the importance of services on insurance comparison platforms. Platforms have built new touchpoints between consumers and suppliers however little is known about the long-term importance of the supplier brands – the question remains whether some suppliers will become mere white label hardware producers.

7.4 Conclusion and outlook

In the last 5-10 years there has been an increased interest for digital platforms in practice and subsequently in academia as well. In this dissertation a holistic view of the phenomenon was taken into account, by examining all three perspectives: consumer, platform and supplier point of view. This novel holistic approach could show that platforms have different dependencies from their suppliers based on their development stage, suppliers have different strategies how to deal with digital platforms at the three stages in the customer journey and customers can evolve preferences for platform brands over supplier brands in both low and high involvement product categories. All perspectives taken into account, the dissertation could outline success factors for the collaboration between suppliers and platforms.

However, as the phenomenon is new and evolving, more changes are expected to happen. Digital platforms are like a new species which has entered an existing ecosystem. In this case, nature has taught us that animals have three collaboration mechanisms: commensalism (one species benefits), mutualism (both species benefit) and parasitism (one specie benefits, one specie is harmed). These three collaboration mechanisms can be transferred to platforms. All three cases exist however mutualism is the most sustainable for both species. In the early stages of the platform economy, some platforms have shown more parasitic tendencies than mutualistic. However, in the long term a parasite (such as a tape worm) is useless without a host.

All in all, building on multiple research methods, with a rich empirical foundation, this thesis lays the foundation for the untapped field of marketing research in platform economies. It shows why platforms and suppliers need to collaborate, how customers evaluate the collaboration and what managers can do to thrive in the platform economy. The thesis offers both a fertile ground for future research and equips managers with useful tools and frameworks to succeed in this dynamic world.

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9. Appendices

Appendix A

Interview guidelines for the *external expert* interviews

The following interview guideline was used for the external platform experts' interview

Question Set 1: Understanding the role of digital platforms What is your definition of a digital platform? How have platforms changed over time?
Question Set 2: Supplier access How should platforms choose their suppliers? How important is this decision in the success of a platform?
Question Set 3: Supplier authority How should platforms govern their suppliers (= what products and services should platforms offer their suppliers?)
Question Set 4: Success factors What are success factors regarding platform openness? What other success factors exist for digital platforms?
Question Set 5: Outlook Which developments do you observe with regard to access and authority on digital platforms? Which companies do you regard as best practice? Where is there potential to improve?

Note: The interviews were conducted in German and protocolled for analysis.

Appendix B

The following interview guideline was used for the *platform owner* interviews.

Question Set 1: Understanding the platform company

What is the value proposition of your digital platform? Who is your customer, who is your supplier, what is your core unit of interaction? How do you monetize your network and which changes have there been over time?

Question Set 2: Supplier access

How do you choose your suppliers? Can every supplier easily access the platform? How much technological integration is needed?

Question Set 3: Supplier authority

What products and services do you offer the suppliers? How much can suppliers customize their offering on the digital platform? How did your offering change over time?

Question Set 4: Designing the platform openness

How did you decide how open your platform is? Do you believe there is a trade-off between access and authority? If yes, why does this trade-off exist? How important is the right degree of openness? Have you changed the configuration of the openness on platforms?

Question Set 5: Outlook regarding openness

Which developments do you observe with regard to access and authority on digital platforms? Which companies do you regard as best practice?

Question Set 6: Pre-Launch
Which steps are important before launching the platform? What strategic decisions are crucial for the success of a platform? Which markets make sense for platforms?

Question Set 7: Growth
How can platforms grow? Which different mechanism exist? How do you differentiate yourselves from competitors?

Question Set 8: Maturity
If user growth slows down (maturity phase), how can platforms find further revenue sources? Which different revenue sources exist? When should platforms switch to other revenue sources?

Question Set 9: Outlook
How do you think your digital platform will look like in 5-10 years? Who is your main competitor?

Note: The interviews were conducted in German and protocolled for analysis.

Appendix C

The following interview guideline was used for *pipeline company* experts.

Question Set 1: Understanding the pipeline company What is your current business model and how have digital platforms changed the way you do business?

Question Set 2: Strategies Which initiatives are you currently doing in regard to digital platforms?

Question Set 3: Best / Worst practices What are your success stories and failures regarding digital platforms? Why did you succeed and why fail?

Question Set 4: In-depth strategy What is important when building a platform? What is important when joining a platform? Which metrics do you use when collaborating with platforms?

Question Set 5: Outlook Which developments do you observe with regard to digital platforms and your current business model? Which companies do you regard as best practice? Where is there potential to improve?

Note: The interviews were conducted in German and protocolled for analysis.

Appendix D

The following questionnaire was used for the interviews with Dana von der Heide (co-founder), Arne Jeroschwesky (co-founder) and Cheryl Han (CMO).

Question set 1: Introduction
What is your role in parcel perform?

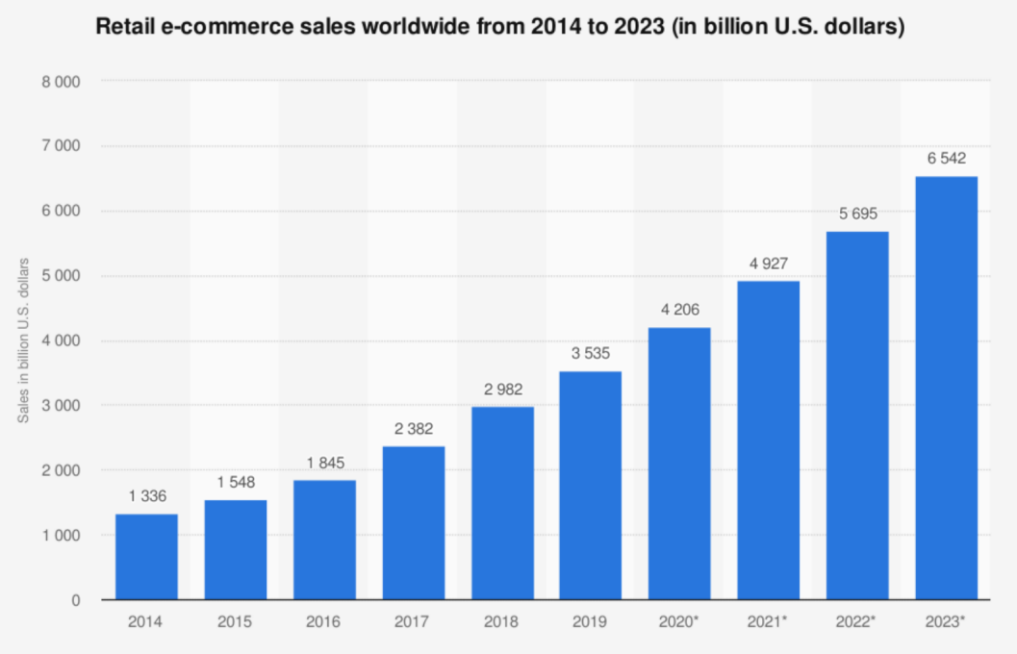
Question Set 2: Journey
What was the initial strategy/ business model of Parcel Perform and how did it evolve?

Question Set 3: Branding & Customer acquisition
How does Parcel Perform leverage its own brand? How does Parcel Perform leverage supplier brands? How is marketing management done at Parcel Perform?

Question Set 4: Competition
What are the main competitors? Which sectors do they come from?

Question Set 5: Outlook
Which developments do you observe regarding Parcel Perform? How do you want the brand to be perceived in the future?

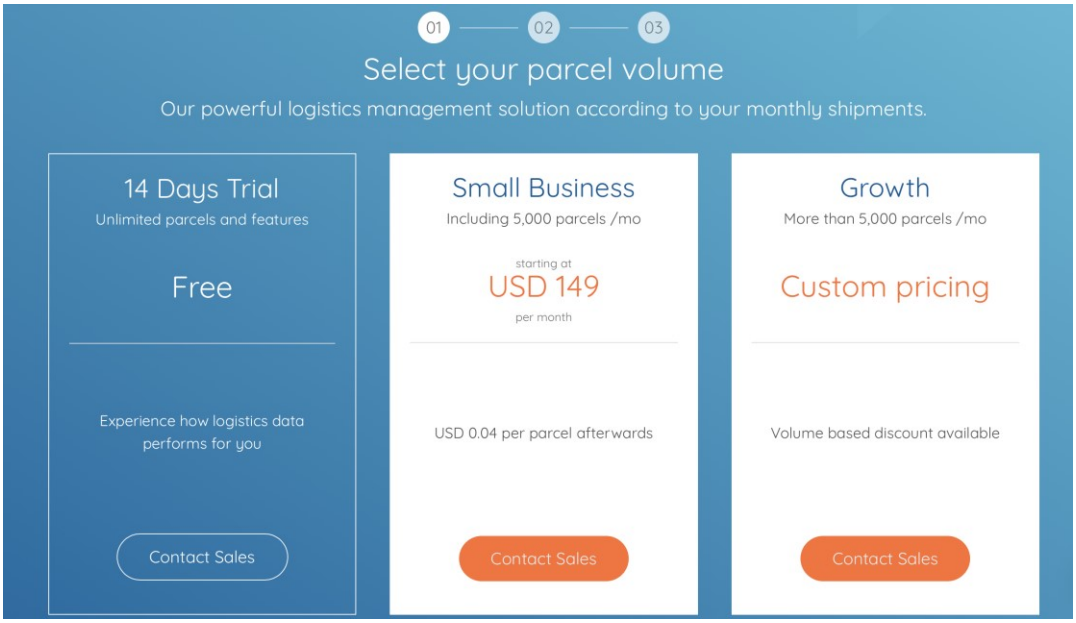
Furthermore the following materials were also taken into account: 1. SEO competition, 2. Competitor websites, 3. Sales presentation Parcel Perform, 4. Pricing presentation Parcel Perform, 5. Institute for Marketing study trip introduction presentation 2019, 6. Parcel Perform website, 7. Parcel Monitor website.

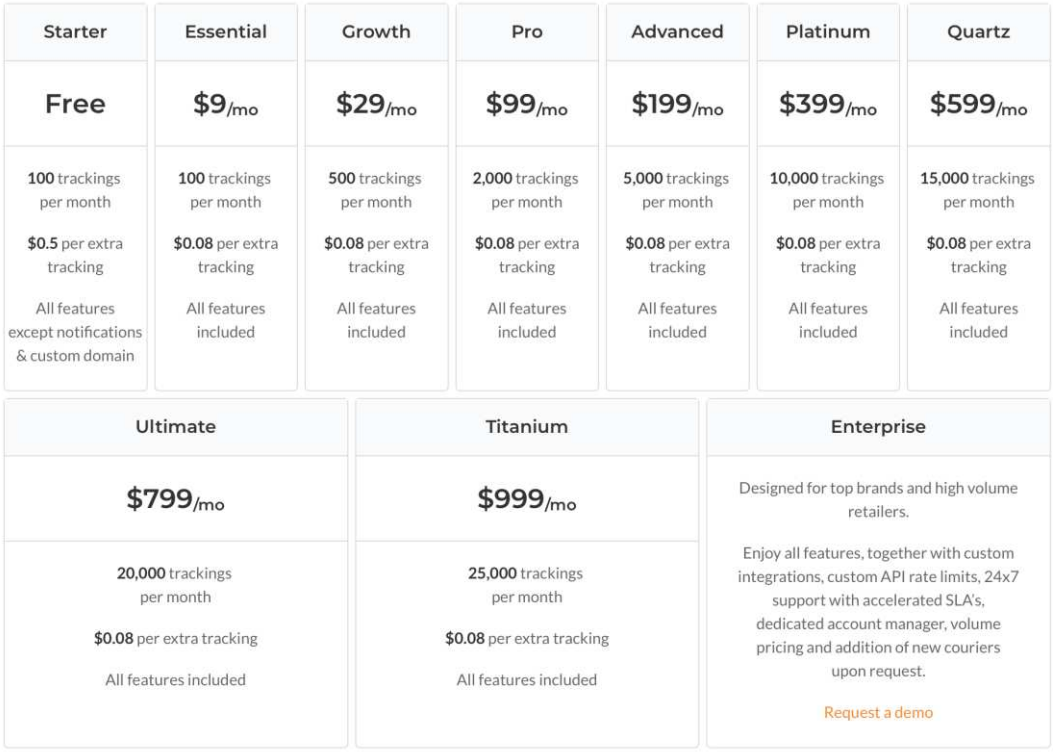


AWARDS

Since launching Parcel Perform in 2016, they have received multiple prizes and awards:

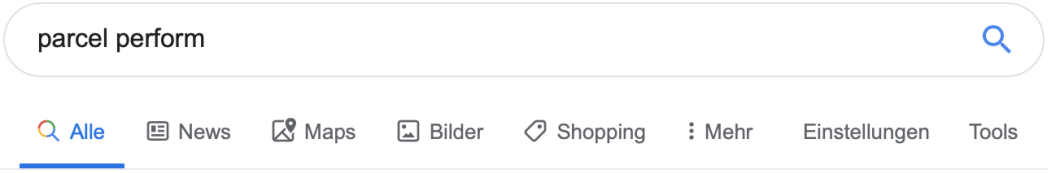
- Overall winner 2016 CAN Start-up Season
- E-Commerce Day 2017 Berlin
- Inside Retail Live 2017 Winner
- Retail EX Thailand 2018 Winner of Choice
- Top 20 Supply Chain LogiSYM 2018 Singapore
- IMDA – Federated Lockers 2018
- IMDA Accredited Company Singapore 2018
- World Post & Parcel Awards 2019 Start-up Winner





Starter	Essential	Growth	Pro	Advanced	Platinum	Quartz
Free	$9/mo	$29/mo	$99/mo	$199/mo	$399/mo	$599/mo
100 trackings per month	100 trackings per month	500 trackings per month	2,000 trackings per month	5,000 trackings per month	10,000 trackings per month	15,000 trackings per month
$0.5 per extra tracking	$0.08 per extra tracking	$0.08 per extra tracking	$0.08 per extra tracking	$0.08 per extra tracking	$0.08 per extra tracking	$0.08 per extra tracking
All features except notifications & custom domain	All features included	All features included	All features included	All features included	All features included	All features included

Ultimate	Titanium	Enterprise
$799/mo	$999/mo	Designed for top brands and high volume retailers.
20,000 trackings per month	25,000 trackings per month	Enjoy all features, together with custom integrations, custom API rate limits, 24x7 support with accelerated SLA's, dedicated account manager, volume pricing and addition of new couriers upon request.
$0.08 per extra tracking	$0.08 per extra tracking	Request a demo
All features included	All features included	



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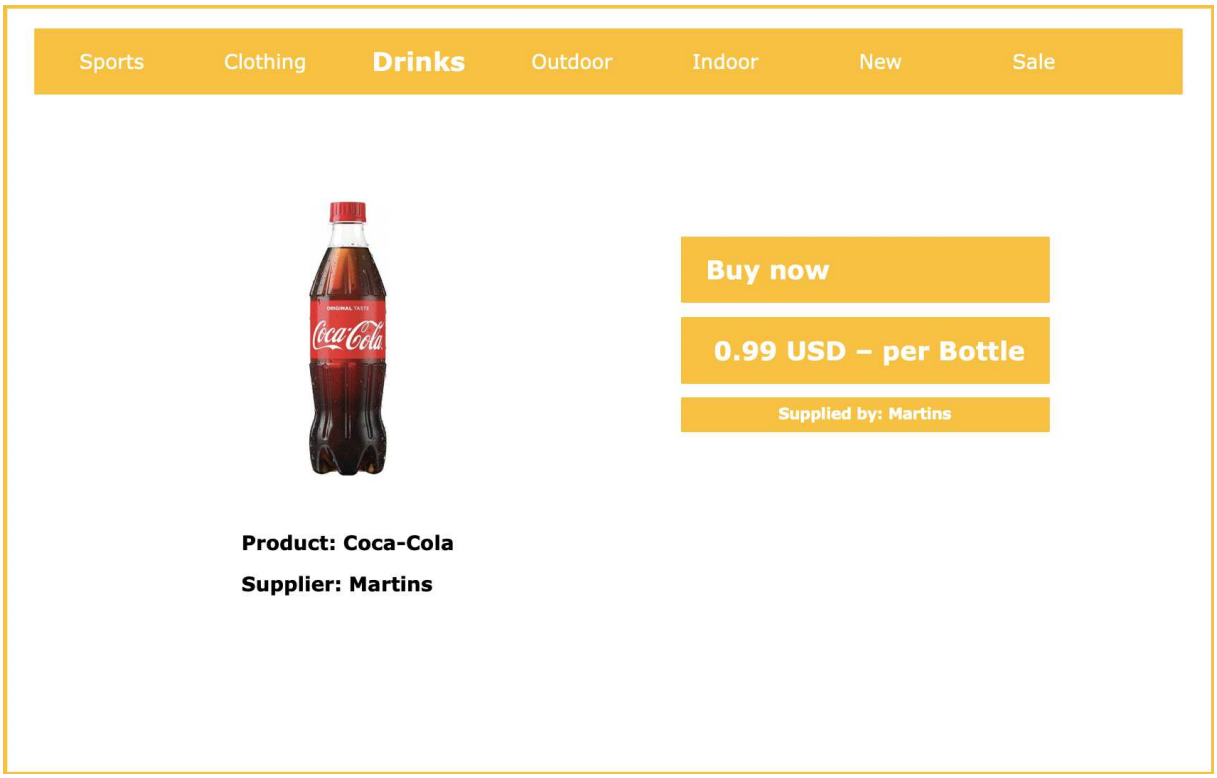
https://www.parcelperform.com Diese Seite übersetzen

Trusted by global brands. Unlock the possibilities of e-commerce logistics for better customer experience and logistics intelligence.

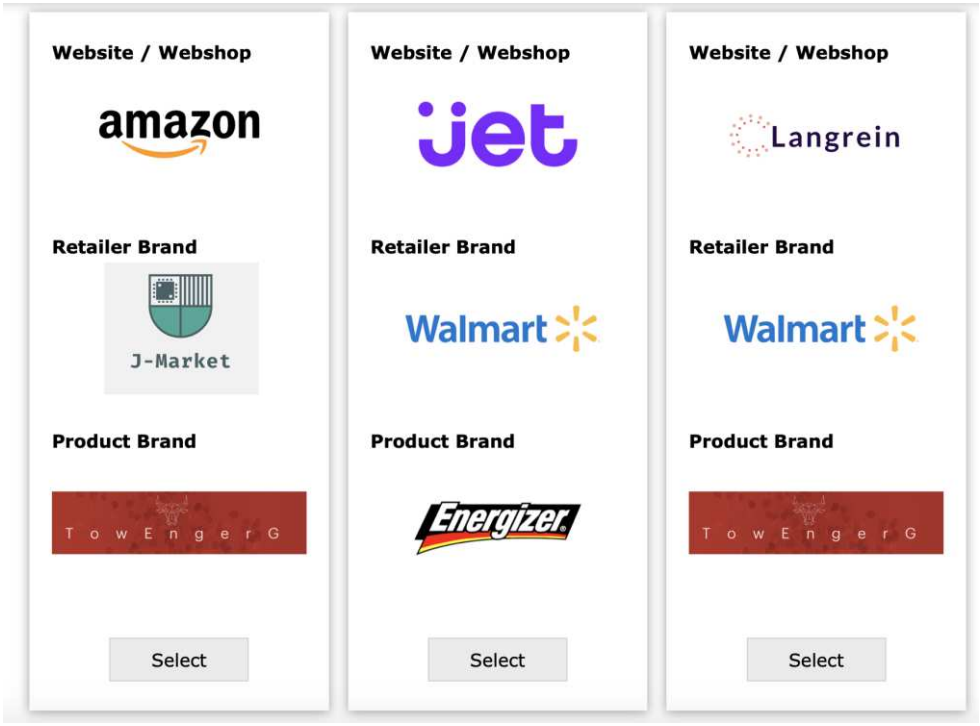
About · Products · Pricing · Carriers

Appendix E

Example of the mock-up website for the study 4.1.



Example from the conjoint analysis from study 4.2



Example from the conjoint analysis from study 4.3



Example of conjoint overview for the brands used in the study 4.4



Curriculum Vitae

Martin Anton Schumacher

born May 31st, 1991, in Southampton, UK

Education

2017 – 2020	**University of St.Gallen**, St. Gallen Switzerland Doctoral Studies in Business Administration
2015 – 2017	**Technical University Munich**, Munich, Germany Master of Science in Business and Technology
2010 - 2013	**Technical University Munich**, Munich, Germany Bachelor of Science in Business and Technology

Work Experience

2017 - 2019	**HAIRRY**, St. Gallen, Switzerland Co-Founder, CMO
2016	**Arthur D Little**, Munich, Germany Strategy Consulting internship
2016	**Mercedes Benz**, New York, USA Go-to-Market Management internship
2015	**Henkel**, London, UK Key Account Management internship
2014	**Daimler**, Beijing, China Quality Management and Consumer Reporting internship