

The Platform Business Model Canvas - Designing And Visualizing Platform Business Models

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Abstract: Literature research has shown that there is no proven business model canvas for platforms. Such a canvas would be a vital tool that provides added value to companies and innovators for various purposes: sharing, communication (internal and external), description, analysis, management, planning and partnering. In addition, a platform business model canvas helps follow a systematic but also pragmatic approach with regards to the transformation of a pipeline business to a platform business, designing a new platform or describing an existing platform business model. This research introduces a platform business model canvas that is easy to use and helps capture platform business models in a comprehensive and effective way following the Design Science Approach. The basic components for a platform business model and the four perspectives are introduced and assembled to form the platform business model canvas. It is then applied in an illustrative case study to visualize the platform business model of Airbnb.

Keywords: platform business model canvas, design science approach, Airbnb Case Study, strategy tool, innovation strategy

INTRODUCTION

Platform business models are the future in many areas [1]. In contrast to so-called pipeline business models, in which products or services are created using available production resources and are actively offered on the market, platforms simply align the needs and interests of market participants [2]. They are virtually matching machines that ensure that a large number of providers reach a large number of consumers. Large and small providers can thus significantly increase their reach [3]. At the same time, users and consumers can search through the offers more individually and find the right solution. In this manner, more availability attracts more demand and vice versa. But also, more demand creates more demand (viral marketing) and more supply creates more supply (best practice). This enables platforms to scale rapidly. These phenomena can be summarized under the terms direct and indirect network effects [4]. To design a new platform, designers must understand and balance the interests of the stakeholders from the outset [5]. In addition to providers and customers, there are also partners who are important for the functionalities on the platform and the platform owner [6].

Literature research has shown that there is no proven business model canvas for platforms. Such a canvas would be a tool that provides added value to companies and innovators for various purposes: sharing, communication (internal and external), description, analysis, management, planning and partnering. Kindström emphasizes that a business model approach to researching a particular organization provides a useful analytical framework for understanding the organization and its inherent components [7]. In addition, a platform business model canvas helps follow a systematic but also pragmatic approach with regards to the transformation of a pipeline business to a platform business, the task to design a new platform or to describe an existing platform business model. As there is not yet a comprehensive approach that would empower managers in their efforts to analyze, describe or create a platform business model, the central research goal is to fill this gap [8].

March & Smith presented design science as a scientific category to find solutions to real-world problems [9]–[11]. The question whether the solution orientation of this paper is sufficient for a scientific work is answered by the methodological context put forward by Hevner et al, as Wieringa summarizes: “(1) business needs motivate the development of validated artifacts that meet those needs, and [...] (2) the development of justified theories about these artifacts produces knowledge that can be added to the shared knowledge base of design scientists [11]”.

The paper proceeds as follows. The basic components (or building blocks) and the necessary perspectives for the platform business model canvas, are derived from literature. The need for three or more perspectives, is furtherly discussed on basis of Osterwalder’s business model canvas by outsourcing dimensions of control. Components and perspectives are then put together to form a platform business model canvas, which is applied in an illustrative case study of Airbnb showing how the canvas is used.

INTRODUCING THE COMPONENTS OF THE PLATFORM BUSINESS MODEL CANVAS

Taking literature and existing platform business model canvas in account ([12]–[17], compare [18], [19]), the platform business model canvas that this research introduces consist of the following components/building blocks: Core Value Unit, Job, pain, gain, Key

Activities, Key Resources, Channels, Revenue Streams, Cost Structure, Transaction, Key Partnerships, Customer, Owner, Contributor, Filters, Governance (see table 1)[8].

Table 1. *Basic Platform Business Model Constructs/Building Blocks condensed from literature according to Eisape[8]*

Construct	Description
Basic Platform Business Model Components/Building Blocks	
Core Value Unit	This is the center piece of every platform. It describes the smallest unit that is created and consumed. It is the connection point between all stakeholders of a platform.
Job, pain, gain	Every player that decides to join a platform has the goal to solve a problem or to satisfy an own need. Therefore, for a platform owner to be able to match interests he or she must understand how a solution made on the platform by one platform user can be newer, better, more up to date, cheaper, easier or more user-friendly with respect to the needs and problems of another platform user.
Key Activities	Participating on a platform means to be active. The key activities of every participant that are necessary to keep the platform working, must be portrayed to understand how stakeholders can be stimulated to be active
Key Resources	In a platform eco system every participant that is active has some sort of costs related to these activities. Running, Contributing, Providing, or Consuming over a platform always needs some sort of resources involved. From time, to internet connectivity, to money, goods, know how, technology, etc. various resourceful activities by the various stakeholders need to be understood as e. g. it may be the goal to keep the platform entry as low-barrier as possible. Therefore, it is necessary to understand, what are the most important expenses for each player without which the platform business model would not work.
Channels	Potential participants can only participate in something they know about and where they have access to. Understanding through what channels stakeholders can be addressed is key to have a working platform.
Revenue Streams	There are often several ways to capture value. The platform owner as well as the

other active platform stakeholders participate to gain some sort of value. This can be money, merit, fame, know-how, resources, etc. that result from successful transactions.

Cost Structure Looking at the cost structure in context of a platform business model it becomes clear that platform participants basically have two types of costs, the key resources needed to participate on a platform (as mentioned above) and costs related to successful transaction between platform participants. Therefore, to reduce complexity, hereinafter cost structure and revenue will be subsumed to transactions that are always to be understood as bi-directional, representing cost and revenue.

Transaction Transactions are the result of complementarily corresponding interests, where two needs are met through the exchange of goods, services, information or money. Therefore, it is key to understand what can be transacted and how each platform-user can benefit from transactions.

Key Partnerships Platform owners often need technology, know-how, processes or resources of key partners to generate value on the platform. Apart from facilitating activities or increasing the effectiveness of the platform it can also help to spread risks across several shoulders.

Customer Depending on the platform they can be called Users, Buyers, Consumers, etc. Although a platform does not specifically aim at customers in the real sense of the word, as it does not sell something to a specific group of people, a platform must understand how participants can be customers to suppliers that offer products, services or information on the platform. Therefore, while designing or portraying a platform the often-interchangeable role of consumers and providers needs to be understood.

Owner The platform owner has a unique perspective, as owner's interests are the brackets around the activities on the platform. Laying out the owner's perspective is vital to have a holistic understanding of the platform's functionalities.

Contributor Depending on the platform they can be called Contributors, Suppliers, Sellers,

Providers, etc. Participants that offer something on a platform are vital for possible transactions and therefore need a dedicated perspective, to be understood.

Filters

A vital tool to keep platforms healthy and working are filters that make sure that the right people get access to the platform. This not to be mistaken for search filters that participants use to find other participants on the platform. Filters allow for a barrier-regulation, to coordinate who gets access to a platform and who doesn't. Their coordinated absence make sense in a no-barrier driven approach, whereas their presence make sense in a curated approach.

Governance

Every platform needs some rules to promote and ensure a healthy environment, where innovation and transactions can thrive. Protecting value as well as stimulating value creation are key elements that require governance.

The second dimension of outsourced control will be to place the production of goods or the provision of services into external hands, which transforms a business from a producer or service provider to the business model of a publisher [8], [22].

The third dimension of outsourced control would be to invert control and pass it to the customers. This means that the control over the entire area of customer approach and customer management is outsourced, so that the "control" or better the initiative lies with the customers. This phenomenon is known as crowdsourcing [8], [23].

The fourth dimension of outsourced control is when organizations or individuals use resources to create products or provide services but don't pay for the costs and don't capture value. The creative commons approach to copyright may be a concept that applies here [24].

Simultaneously outsourcing the first and second dimension of control creates a business model, where customer relationship and capturing value is in the center of internal activities which ought to be aligned with an external product and service creation and external resources. This perfectly describes the business model of sales agents/broker [8], [25].

A platform in some extend is the combination of a strategic alliance, with publishing activities, where products are created by a crowd of innovators that sometimes may be open source but always have inherent the ability to match interests of demand and supply like a broker.

The business model canvas therefore cannot consist of principal areas that solely lay within the activity radius of a firm. It needs to facilitate the understanding and alignment of these external value propositions and external activities. Which is represented by the basic four perspectives: owner, key partner, consumer and provider[8].

INTRODUCING THE FOUR PERSPECTIVES OF A PLATFORM BUSINESS MODEL

This chapter will discuss the "four dimensions of control" which directly correspond to Osterwalder's four principal areas, which are value proposition (the product/service), the infrastructure (activities, resources and partners), the customers (relationship, channels and customer segments), and the revenue model (cost structure and revenue streams).

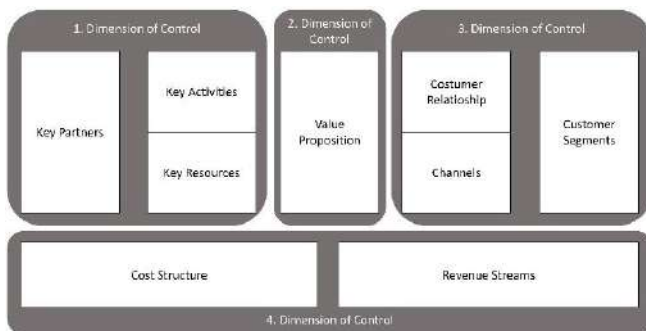


Figure 1. Four Dimensions of Control in a Business Model adapted from Osterwalder [20]

The first dimension of outsourced control will be to place the handling of key infrastructure into the hands of external partners. In this case, a business stands before the challenge to induce key partners to offer key product parts, processes, resources, technologies, know-how and activities to its business activities. Therefore, a firm must truly understand the business model of its key ally/partner in order to create a business opportunity for them that in return helps its own business purpose [8], [21].

INTRODUCING THE PLATFORM BUSINESS MODEL CANVAS (P BMC)

The building blocks are assembled in a triangular pyramid-like arrangement with respect to the perspectives. The top of the pyramid is central to a platform, and all the components below carry and support the respective components above it[8].

The pyramids *consumer*, *provider* and *partner* consist of the components job, pain, gain, transaction, which encompasses cost and revenue, resources, activities, channel and filter. Job, the demand or the need for something, is the top of the pyramid, supported by gain that describes the motivation for a demand or a need, and pain that describes challenges and barriers

associated to the demand or the need being met. After a demand or a need is being met, the exchange of assets in form of costs or revenue constitute transactions. The prerequisites for successful transactions are the use of key resources, effective key activities, the ideal access channel to the platform for each participant and increasing the matching of the right complementary participants through filters, by helping to sift out innovation and transaction inhibiting participants[8].

The pyramid of the *owner* consists of the building blocks job, pain, gain, transaction, which encompasses cost and revenue, resources, activities, channel and governance, whereas the components have a slightly different meaning compared to the same components of participant's pyramid. Since the focus of the owner is to run and manage the platform job pain and gain can be understood almost as a mission statement for the platform, where the goal is always to match peoples interests in a certain area of service, information or innovation. As a platform owner is interested in capturing value through successful matches and transactions therefrom, understanding cost structure and revenue streams is vital. The last four components help design the framework of the platform. Key resources and activities help keep the platform running. The channel makes the platform available to participants and governance summarizes mechanisms and rules that help keep the platform healthy and prosperous[8].

When designing or describing a platform, which is always the description of a one- or multi-sided market, a minimum of three pyramids, the owner, the supplying participant and the demanding participant, are necessary. Of course, roles can be overlapping and interchanging, but each role type is described through a respective pyramid. When a platform does not only have owner, suppliers and demanders, but also a partner that through the contribution of key know-how, technology, processes or information is critical to the platform, is also represented through a participant pyramid[8].

To create a canvas that aggregates all four perspectives the four triangles are aligned on their isosceles sides, whereby the triangular apexes are inside-lying, connecting to each other (see figure 3). The four triangles create a four-sided 3D-pyramid that is then supplemented by the so-called core value unit of the platform at the top. When designing or describing a platform the core value unit is key to every perspective. This value unit must directly correspond to the demand and need every stakeholder has[8].

The model also helps describe and understand an internal and an external view. The owner and the partner are part of the internal perspectives, as they are key to the backend of the platform. The external view is what the users can 'see' from the platform, basically the frontend[8].

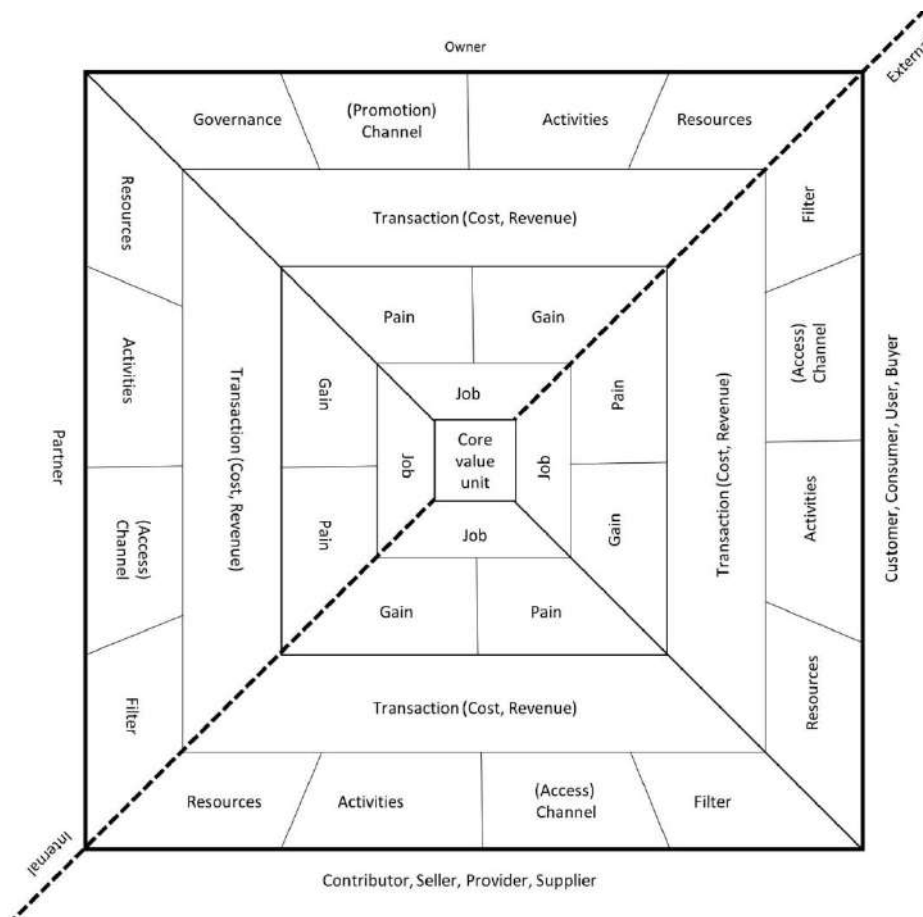


Figure 2. The platform business model canvas according to Eisape[8]

MODELLING THE PLATFORM BUSINESS MODEL OF AIRBNB

Evaluating the adequacy of the building blocks, the model and its instantiation (the canvas) will be accomplished by employing them to describe an existing platform business model in form of an illustrative case studies. Jahn describes that the illustrative case study is appropriate to illustrate previously identified basic patterns, such as a model [26]. Although there are different types of platform business models, Gawer argues that “*at the level of architecture all platform systems are fundamentally the same*” [27, p. 26].”, calling for a universal approach. Therefore, one illustrative case study is conducted explaining the platform business model of Airbnb, thus underlining Gawer’s argument, see also [8].

The approach is to define questions that directly correspond to the components of the platform business model canvas. Therefore, the questions are derived from the platform business model canvas component definitions. Answering the questions is then done by using Airbnb’s websites as well as already existing case studies addressing Airbnb’s platform business model from literature as sources of information (see table 2).

Table 2. Questions and answers to fill the cells of the platform business model canvas for the illustrative case study on Airbnb

Construct	Content/Description
Questions and Answers for each Cell of the Platform Business Model Canvas in the Case of Airbnb	
Cell	Consumer
Question	Who are key users, buyers, consumers?
Answer	“travelers looking for short-term accommodation” [28, p. 35]
Cell	Job for consumer
Question	What job can a user, consumer, buyer get done? What need of the consumer, user, buyer can be met?
Answer	find “short-term accommodation” and “discover their holiday destinations, or the city they just permanently moved to, just like the locals do” [28, p. 35]
Cell	Pain for consumer
Question	What are dangers, problems and barriers related to the job done or the need met. How can the platform help reduce, eliminate or solve these?
Answer	“rented house was not as shown in the pictures” [29, p. 1] “guests of the Airbnb rentals have (1) been targets of crime, (2) had valuables stolen while staying at these properties and (3) may in fact be more exposed to a greater range of crimes due to not being in a tourist location.” [30, p. 1]

Cell	Gain for consumer
Question	What are positive effects related to the job and need? How can the platform enhance these positive effects?
Answer	“authenticity: Living in an Airbnb place represents local ways of life” [31, p. 32], “consumers’ sensitivity level to price: I am more willing to purchase the Airbnb place if I think it is cheaper than a hotel room.” [31, p. 32] and “Electronic Word-of-Mouth: To make sure I choose the right Airbnb place, I often read other tourists’ online reviews” [31, p. 32]
Cell	Filter for consumer
Question	What are possible access barriers? How can we eliminate them? Who are potential users, buyers, consumers that we don’t want on the platform? How can we ensure that they don’t get access to the platform?
Answer	“Hosts need a safe way to block people from contacting them or booking their listings” [32, p. 1] “watchlist and background checks” [33, p. 87] “7M+ Airbnb listings worldwide, 100K+ cities with Airbnb listings, 220+ countries and regions with Airbnb listings” [34] “Airbnb is an online community and service that’s based on the internet. It’s available 24-hours-per-day, seven-days-per-week, from any computer or mobile device that connects to the internet” [35], [36]
Cell	Transaction for consumer
Question	To whom and how does a user, consumer, buyer make a transaction? From whom and how does a user, consumer, buyer receive a transaction?
Answer	“Both hosts and guests pay a commission that in total amounts to 8-18% of the transaction price.” [33, p. 87] “Guests pay money in return for having short-term access to the host’s space.” [37, p. 69]
Cell	Channel for consumer
Question	Through which channels is the platform accessible for a buyer, user, consumer?
Answer	The website and the Airbnb app [38]
Cell	Key resources for consumer
Question	What are key resources, data, knowhow, expertise, technology that users must invest, to be able to use the platform?
Answer	“Airbnb’s requirements for guests include: Full name, Email address, Confirmed phone number, Introductory message, Agreement to house rules, Payment information. Guests are encouraged, but not required, to have a profile photo.” [39]
Cell	Key activities for consumer
Question	What are key activities that users perform on a

Answer	<p>platform to finish job or meet need?</p> <ol style="list-style-type: none"> 1. Complete your profile, 2. Find the right place/experience, 3. Book it: <ol style="list-style-type: none"> 1. On airbnb.com, enter your destination, travel dates, and number of guests. 2. Click Search. 3. If you want, use the filters (for example, price range) to narrow your options. Click More Filters to see all available filters. 4. Scroll through the listings or use the map to find listings in the location you want. 5. Click on a listing to open it. To learn more about it, read the description, check the available amenities, review the House Rules, and see reviews that other guests have left for the host. 6. If you have any questions, send the host a message. Or, if you're ready to book, request to book the listing (or use Instant Book if the host has it turned on)." [40] 	Question	<p>What are possible access barriers? How can we eliminate them? Who are potential seller, implementer, provider, contributor, merchants that we don't want on the platform? How can we ensure that they don't get access to the platform?</p>
Cell	Provider	Answer	<p>"With more than half a billion guest arrivals to date, and accessible in 62 languages across 220+ countries and regions, Airbnb promotes people-to-people connection, community and trust around the world." [47] "24/7 customer service" [48] "It's available 24-hours-per-day, seven-days-per-week, from any computer or mobile device that connects to the internet" [36] "All adventures must meet certain quality and eligibility standards before being offered to guests, and every host must demonstrate expertise relevant to the experience they host. Hosts who would like to lead an adventure with activities that may require special skills or certifications as part of that trip, must attest to having the appropriate skills certification, current first aid and CPR training, and/or access to medical services relevant to the activity they would like to lead." [49]</p>
Question	Who are key sellers, implementers, providers, contributors, merchants?	Cell	Transaction for provider
Answer	<p>"homeowners or first-hand renters" [41, p. 29] "Experience hosts create unique experiences based on their passions or interests." [42, p. 8]</p>	Question	<p>To whom and how does a user, consumer, buyer make a transaction? From whom and how does a user, consumer, buyer receive a transaction?</p>
Cell	Job for provider	Answer	<p>"Both hosts and guests pay a commission that in total amounts to 8-18% of the transaction price." [33, p. 87] "Airbnb never charged a fee for listing space" [37, p. 45]</p>
Question	<p>What job can sellers, implementers, providers, contributors, merchants get done? What need of sellers, implementers, providers, contributors, merchants can be met?</p>	Cell	Channel for provider
Answer	<p>"[...] rent or [...] sublet [for example an apartment]" [41, p. 29] "Experience hosts create unique experiences based on their passions or interests." [42, p. 8] "Earn money leading people on activities you love." [43]</p>	Question	<p>Through which channels is the platform accessible for sellers, implementers, providers, contributors, merchants?</p>
Cell	Pain for provider	Answer	<p>"Airbnb is an online community and service that's based on the internet. It's available 24-hours-per-day, seven-days-per-week, from any computer or mobile device that connects to the internet" [35], [36]</p>
Question	<p>What are dangers, problems and barriers related to the job done or the need met? How can the platform help reduce, eliminate or solve these?</p>	Cell	Key resources for provider
Answer	<p>betrayal, flawed and frustrating communication [44, p. 67], inconsiderate guests, unexpected fines, fraud, [...] crime and financial loss" [45] hosting is time consuming, complex and difficult [46]</p>	Question	<p>What are key resources, data, knowhow, expertise, technology that users must invest, to be able to use the platform?</p>
Cell	Gain for provider	Answer	<p>Access to the internet [36], Resources to prepare property [36], Investment into basic Amenities for added comfort of guests [36], Payment method [36],</p>
Question	<p>What are positive effects related to the job and need? How can the platform enhance these positive effects?</p>	Cell	Key activities for provider
Answer	<p>"meet new people [...] [and/or] earn extra money" [41, p. 40]</p>	Question	<p>What are key activities a seller, implementer, provider, contributor, merchants must perform</p>
Cell	Filter for provider		

on platform to successfully participate?

Answer “create a personal Airbnb account“, „ create one or more property listing“, „ managing account and listing“, „ all administrative tasks associated with being a host“, „ Refer Friends to Airbnb“, „ Adjust Account Settings“, „ Learn About Airbnb for Business“, „ Access and Manage City“, „ Communicate with potential Guest using the Airbnb Messaging Service“, „ Access the Host Dashboard“, „ Access and Manage Reservations“, „ Access Transaction history“, „ Access Reviews“, „ Lear about host assist Services“, „ Master hospitality skills“, „ get online help“, „ Contact Airbnb“, „ Lear about Home safety.” [36]

“Guest check-in and checkout, Housekeeping and maintenance between stays, Laundering and replacing linens
24/7 guest support, Listing creation with competitive pricing, Booking request management, Professional photography” [50]

Cell Partner

Question Who are key partners to keep the platform running and thriving?

Answer

1. Payment method partners: PayPal, Alipay, PayU, SofortÜberweisung[51]
2. IT-Infrastructure: Amazon Web Services [52], [53, p. 321]
3. Services supporting hosts:
 - a. “Guesty: An integrative platform to manage multiple accommodation rentals via a single, integrative, cloud-based solution” [37, p. 44]
 - b. “HonorTab: “A minibar-like service that allows hosts to manage inventory and charge for groceries and other consumable amenities (shampoo etc.)” [37, p. 44]
 - c. “Hostmaker: A Management company for accommodation rentals that handles everything from furnishing, to listing, housekeeping, pricing, and maintenance” [37, p. 44]
 - d. “Keycafe: A service that mediates access to accommodation rentals by providing pickup and drop-off points from lockers” [37, p. 44]
 - e. “Pillow: A management company for accommodation rentals that takes the work out of renting” [37, p. 44]
4. “Maps, payment platforms, cloud storage, identification platforms are important but they are not proprietary any longer.”[54]
5. “Insurance companies, while very important and initially challenging to make a deal with, by now are not a big challenge any longer.”[54]

Cell Job for partner

Question What job can partners get done? What need of partners can be met?

Answer “Hosting teams are separate businesses that provide professional hosting services to help you manage your listing. If you qualify, we’ll match you with a hosting team in your area.” [50]

“[Airbnb] now uses some 200 AWS instances for its application, memory, storage, and search servers to support its Web site.” [53, p. 321]

“Maps, payment platforms, cloud storage, identification platforms are important but they are not proprietary any longer.”[54]

“Insurance companies, while very important and initially challenging to make a deal with, by now are not a big challenge any longer.”[54]

Cell Pain for partner

Question What are dangers, problems and barriers related to the job done or the need met. How can the platform help reduce, eliminate or solve these?

Answer Catch attention of guests and hosts: “Airbnb’s business model poses an interesting challenge—the thousands of customer service agents, operating out of 20 physical locations around the world, serve both hosts and guests. That Global Customer Experience team aims to ensure a positive customer experience that begins on Airbnb’s platform and extends for the duration of a stay.” [55]

“when the Customer Experience team first started at Airbnb, support was provided in English. Today, Hassell’s team monitors 20 languages in text-based support with the assistance of Zendesk multilingual capabilities. Phone-based support is also offered in 11 languages, and English and Mandarin support is provided 24/7.” [55]

Cell Gain for partner

Question What are positive effects related to the job and need? How can the platform enhance these positive effects?

Answer “For a fee—generally around 20% per booking—hosting teams will manage everything from setup and booking to checkout and cleaning.” [50]

Cell Filter for partner

Question What are possible access barriers? How can we eliminate them? Who are potential partners that we don’t want on the platform? How can we ensure that they don’t get access to the platform?

Answer Airbnb is an online community and service that’s based on the internet. It’s available 24-hours-per-day, seven-days-per-week, from any computer or mobile device that connects to the

	internet" [35], [36] Partnering process between Airbnb and Partner [56] "To ensure software-integrated hosts have a great experience connecting with Airbnb, we hold our software partners to a high standard of excellence. We stand behind our full list of partners—they must all meet a baseline criteria to be able to connect—but we also realize that some exhibit an exceptional level of service. These exceptional partners provide support that extends to the full suite of Airbnb functionality and exceeds all of our technical performance benchmarks. In October of 2018 we launched our Preferred Software Partner program to provide additional elevated criteria by which we could measure and recognize these partners." [57]		
Cell	Transaction for partner		
Question	To whom and how do partners make a transaction? From whom and how do partners receive a transaction?	Answer	statement and a value proposition of the platform)? "Airbnb is, in its essence, a platform connecting two different user groups," [28, p. 35]
Answer	"For any booking, revenues are automatically shared as follows: 70% for the tenant, 23% for the owner, 7% for Century 21 agency" [58]		
Cell	Channel for partner		
Question	Through which channels is the platform accessible?	Cell	Pain for owner
Answer	"Airbnb Official API: Develop your application for millions of travelers & hosts" [59], [60] "The Official Airbnb API allows external applications to securely OAuth into new and existing Airbnb accounts, granting the ability to push updates to content, rates, and availability and to get back messaging and reservation details, allowing applications to build custom workflows and create amazing experiences for our shared customers." [59], [60]	Question	What are dangers, problems and barriers related to the job done or the need met. How can these be reduced, eliminated or solved?
Cell	Key resources for partner	Answer	"direct transactions between the two parties had to be prevented as this would lead to a one-sided business" [61] "Trust is an important concern [], and more so if the transaction entails admitting strangers to one's private environment." [61] "Inability to Monitor or Ensure Trust" [62, p. 225] Server errors [63]
Question	What are key resources, data, knowhow, expertise, technology that partners must invest, to be able to use the platform?	Cell	Gain for owner
Answer	Development team [60]	Question	What are positive effects related to the job and need? How can these be enhanced?
Cell	Key activities for partner	Answer	"Airbnb is able to connect 150 million travelers with 2.9 million hosts offering 6 million places to stay across 191 countries" [28, p. 35]
Question	What are key activities that partners perform on a platform to finish a job or meet need?	Cell	Transaction for owner
Answer	"Scalability and reliability and 24/7 uptime were big factors, said Shirley Lin, product lead for the Support Products Group, of Airbnb's decision to initially adopt Zendesk." [55]	Question	To whom and how does the owner make a transaction? From whom and how does the owner receive a transaction? Which transaction fees pay the owner? How are they implemented?
Cell	Owner	Answer	"Both hosts and guests pay a commission that in total amounts to 8-18% of the transaction price." [33, p. 87]
Question	Who is the platform owner and who runs the platform?	Cell	Channels for promotion by the owner
Answer	Airbnb, Inc	Question	Which channels does the owner use to promote the platform?
Cell	Job for owner	Answer	Video-ads on YouTube [61]; website [64];
Question	what are tasks that the platform owner wants to get done (This is often related to a mission	Cell	Key resources for owner
		Question	What are key resources, data, knowhow, expertise, technology that the owner must invest, to keep the platform running and thriving?
		Answer	"Tailored marketplace", "Trust-base relationship", "Database of reviews tied to profiles", "Knowledge resources", "service recovery staff" [37, p. 45], [37, p. 48 ff]
		Cell	Key activities for owner
		Question	What are key activities that the owner must do, to keep the platform running and thriving?
		Answer	"optimize [...] website and provide a better user experience" [33, p. 87] "Growing and nurturing guest and host networks", "Search optimization to match guest and hosts", "Understanding and tracking guest and host behavior", "Building confidence by mitigating risk", "Cost management" [37, p. 45 ff]

“To build data models that support personalized flows, data scientists in the Support Products Group are pulling the information they need from Zendesk.” [55]
 “preparedness”, “secure payment”, “refunds, guarantees and insurance” [33, p. 87]

Cell	Governance by owner
Question	What are rules and processes that ensure a high quality of usage and results on the platform and protect these?
Answer	“Risk Scoring”, “watchlist and background checks”, “Airbnb’s review system [...] the company’s two-way rating mechanism that prompts both hosts and guests to review one another after a stay. The blind reputation assessments [...] provide a layer of third-party

validation for both host and the guest [...]” [65, p. 72]

Cell	Core value unit
Question	What is the core element of the platform to which users and providers align their interests?
Answer	The core value unit of Airbnb is the listing of data on availability and pricing of accommodation and experience in a certain location

The following graphic summarizes the result of mapping Airbnb’s platform business model to the platform business model canvas (see figure 4).

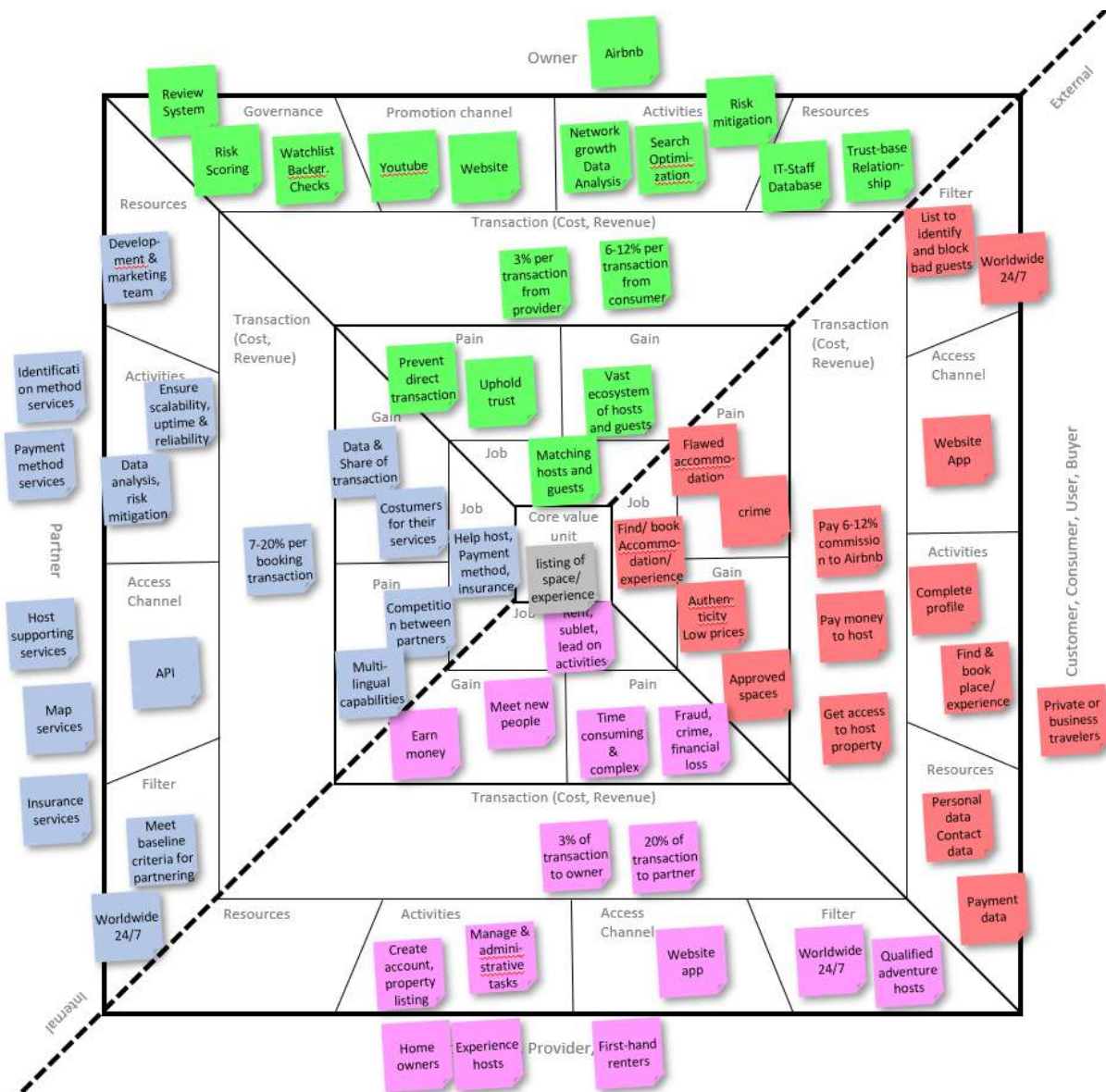


Figure 3. Platform business model canvas for Airbnb

3. CONCLUSIONS

The goal of this research was to present a platform business model canvas that is easy to use and helps capture platform business models in a comprehensive and effective way.

The constructs, which are the basic components/building blocks as well as the necessary perspectives of the platform business model canvas are derived from literature and furtherly discussed on the basis of Osterwalder's canvas. This is an innovative approach, that will surely spark some discussion. They were then put together to form a platform business model canvas which is then instantiated through an illustrative case study.

A major area of contribution is the field of academic research. In general, future researches besides describing more platform business models can try to analyze and explain possible links between the economic impact of platforms and their business models with the help of this platform business model canvas. Future research may also alter and adapt this canvas for further applicability in new areas of platform business models, e.g. non-profit platform business.

Another major area of contribution is the high practical relevance, which enables e.g. managers and business developers to design or describe a platform business model with the Platform Business Model Canvas. The tool takes users step by step through the cells and in a very hands-on-approach helps to visualize a platform business model.

One may argue, that the building blocks defined for the platform business model canvas are very close to those of Osterwalder's business model canvas. Since it is the widely adopted standard in business modelling, the intuitiveness and effectiveness were transferred to the platform business model canvas.

The order of answering the components does play a role, although this paper doesn't highlight it. Concentrating on the components job, pain and gain for each perspective, before then defining the core value unit and then attending the other components can help to create the match of needs and offers right from scratch.

To get an even better result with regards to the illustrative case study on Airbnb, expert interviews with leading Airbnb-employees or stakeholders may help to verify and produce useful feedback on the mapped content and on the eligibility of the platform business model canvas. This case study does not claim to be exhaustive but illustrates a successful instantiation of the platform business model canvas.

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