AMERICAN UNIVERSITY OF BEIRUT

PLATFORM BUSINESS MODEL:
ANALYSIS & APPLICATION

by
ASIYA ISKAKOVA

A project
submitted in partial fulfillment of the requirements
for the degree of Master of Business Administration
to the Suliman S. Olayan School of Business
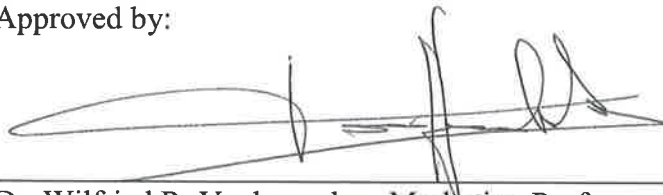at the American University of Beirut

Beirut, Lebanon
August 2017

AMERICAN UNIVERSITY OF BEIRUT

PLATFORM BUSINESS MODEL:

ANALYSIS & APPLICATION

by
ASIYA ISKAKOVA

Approved by:

_____                    [Signature]

Dr. Wilfried R. Vanhonacker, Marketing Professor            First Reader
Suliman S. Olayan School of Business

_____                    [Signature]

Mr. Tarek Kettaneh, Senior Lecturer of Entrepreneurship     Second Reader
Suliman S. Olayan School of Business

Date of project presentation: August 30, 2017.

# AMERICAN UNIVERSITY OF BEIRUT

# THESIS, DISSERTATION, PROJECT RELEASE FORM

Student Name:

_____Iskakova Asiya_____
Last                                   First                               Middle

○ Master's Thesis          ● Master's Project          ○ Doctoral Dissertation

[X]     I authorize the American University of Beirut to: (a) reproduce hard or electronic copies of my thesis, dissertation, or project; (b) include such copies in the archives and digital repositories of the University; and (c) make freely available such copies to third parties for research or educational purposes.

[ ]     I authorize the American University of Beirut, to: (a) reproduce hard or electronic copies of it; (b) include such copies in the archives and digital repositories of the University; and (c) make freely available such copies to third parties for research or educational purposes

after :  **One ----   year  from the date of submission of my thesis, dissertation, or project.**
        **Two ----   years from the date of submission of my thesis, dissertation, or project.**
        **Three ---- years from the date of submission of my thesis, dissertation, or project.**

_____        September 12, 2017_____
Signature                                      Date

This form is signed when submitting the thesis, dissertation, or project to the University
    Libraries

3

# ACKNOWLEDGMENTS

# AN ABSTRACT OF THE PROJECT OF

Asiya Iskakova  for  Master of Business Administration
Major: Business Administration

Title:  Business Models Analysis: Pipeline vs. Platform

Traditional business models and marketing frameworks serve as great foundation for any new venture entering the business world; however, they are getting outdated and disrupted by new and powerful forces, the platforms. No longer a business can set up a store and expect customers to flow in with a help of few TV commercials; much more is required. Customers are becoming very smart and dismissive of push advertising. They demand respect and a clear benefit, they want to be part of a community and make a difference. To make money, businesses need to do more than seduce, they need to earn customers' loyalty.

The platform model, let by tech startups, is designed to satisfy all players involved. It lives up to its name and serves as a stage for users to get on and do their business in a mutually beneficial manner. The challenge is structuring the platform in a way that attracts customers, or users, without any effort. If it is indeed done properly, platforms don't even require marketing; it is innate.

My goal is grasp the essence of this new and exciting platform era and understand what it takes to succeed within it.

# CONTENTS

# EXHIBITS

# CHAPTER I

## INTRODUCTION

To achieve its goals and objectives, every business has a unique business model, a general representation of an operational structure of a business. Such structure allows a business to create value and deliver it to the necessary customers. A business model is comprised of all the functions and components of a given business, its key revenues, and all the expenses it incurs through its operations. It can be of simple or complex nature depending on multitude of factors, particularly the size and type of a business.

In the year 1985, Michael Porter proposed the value chain business model that entails creation of value through a series of steps and processes. This is a linear pipeline business model in which inputs are transformed into desired outputs, which then represent the value created by the business. These traditional business models serve as great foundation for any new venture entering the business world. Companies like Toyota Motor Corporations have successfully implemented this kind of business model through lean manufacturing and lean thinking principles. However, even the incumbents such as Toyota are getting outdated and disrupted by new and powerful forces, the platforms.

The platform model, led by tech startups, is designed to satisfy all players involved. It lives up to its names and serves as a stage for users to get on and do their business in mutually beneficial manner. Instead of steps and sequences, as in a pipeline business, it operates as a network. The challenge is to structure the platform in a way that attracts customers, or users, without any effort. If it is indeed done properly, after getting initial traction, a platform will not require push marketing, as the marketing will be innate through

creation of an ecosystem, where buyers meet sellers.

*The objectives of the project include:*

1. To find out the factors that push firms to abandon traditional pipeline business model and adopt the emerging platform business model.

2. To find out the factors that are likely to contribute to the success of a platform business model.

3. To find out the factors that are likely to contribute to the failure of platform business model.

4. To apply theory to a startup to demonstrate how a business can succeed and realize its objectives through adoption of the platform model.

*This report is divided into seven chapters and a page of references.*

I. Chapter one is introductory chapter, which explains the background and objectives of this report.

II. Chapter two is a brief overview of the traditional pipeline business model. There, I review the main elements of valued chain – suppliers, human capital, logistics, operations, marketing channels, sales, and after-sales services.

III. Chapter three is a brief introduction to the platform business model. Here, I consider the concepts of a platform business model as drawn out in "Platform Revolution", a book recently authored by Geoffrey Parker and other experts in the field of platform business models.

IV. Chapter four is a side-by-side comparison of pipeline and platform business models.

V. Chapter five is an analysis of key success factors required for a profitable

platform based business.

VI. Chapter six is an application of learned concepts and theory for platform business models to a new startup. In this section, I conduct an industry analysis, and go through an exercise of creating a mock platform-based startup.

VII. Chapter seven is a review of how platform-based businesses have impact on global industries.

VIII. References

# CHAPTER TWO

# PIPELINE BUSINESS MODEL OVERVIEW

The pipeline business model is one in which a firm creates products (products meaning products and services), pushes these products to the intended relevant and prospective consumers, and sells them to these consumers. The pipeline model has been in existence ever since the industrial revolution in manufacturing has revolutionized the business world. Today, most businesses that provide both tangible and intangible products run on the pipeline business model. For example, in the current education system, learning institutions develop education frameworks and processes, acquire the necessary human capital – teachers or tutors, and allow those tutors to "push" knowledge and skills into the consumers (students).

Ideally, the pipeline business model bases its concepts on the traditional value chain model developed by Michael Porter, American academic, in 1985. According to Porter, firms are viewed as systems consisting of subsystems. Each of these subsystems has a number of inputs, outputs, and transformational processes that allow the inputs to be converted into desired outputs. The way through which the chain of activities is carried out by the firm determines the cost it will incur and the profits it will achieve at the end of the production cycle.

### *Elements of the Pipeline Model*

The pipeline business model is made of a number of elements, which facilitate its implementation. These elements are:

*Suppliers* – Sources of raw materials required for production of desired value. These are inputs that undergo transformation to produce desired outputs.

*Logistics* – All activities that a firm performs in order to acquire, store, and allocate inputs to specific production units (inbound logistics), or the activities that a firm performs to collect and store, and distribute the final output to specified destinations.

*Operations* – Part of the primary activities of the value chain that the company performs in order to transform the acquired inputs into desired outputs for sale.

*Human Capital* – Refers to intellectual property that firm possesses through the pool of employees and its management. Human capital uniquely belongs to the specific firm and is acquired to add value to the desired output.

*Marketing channels* – Refers to methods of "pushing" the created value to potential consumers by persuading them to purchase it. Firms have to design marketing strategies so as to lure as many buyers as possible. This motivation has led to development of marketing concepts such as 4 P's and 7 P's and the integrated marketing concepts. Even though those methods are complicated and sensitive to implementation, they comprise the only sure way that firms running on a pipeline model have to follow so as to achieve desired profits.

*Customers* – Represent the central focus in the pipeline model. Customers are the final determinants of a firm's success. They are the recipients of the output that flows from the value chain "pipe."

*After-sale services* – Stands for any service provided after the sale has been done. For most firms it is crucial to continue "selling" the product even after it has been sold to a customer to ensure positive word of mouth and repeat purchases.

### *Issues of Concern in the Pipeline Business Model*

There is one main area in the pipeline model that causes losses and contributes to most business failures. The pipeline model requires a push of the products upstream using

some form of energy. This "pushing" process usually entails significant investments and expenditures on sales and marketing required to persuade consumers. If this pushing happens against the will of the consumers, they will easily become irritated and develop a negative attitude towards the product instead of becoming inclined to purchase it. Then, the marketing conversion rates are difficult to estimate and usually are very low, ranging between 1% - 5%. Eventually, a lot of effort and money is wasted on pushing techniques instead of being productively used to create more value.

*Value Chain*

Exhibit 1: Pipeline Value Chain



Primary activities

Secondary activities
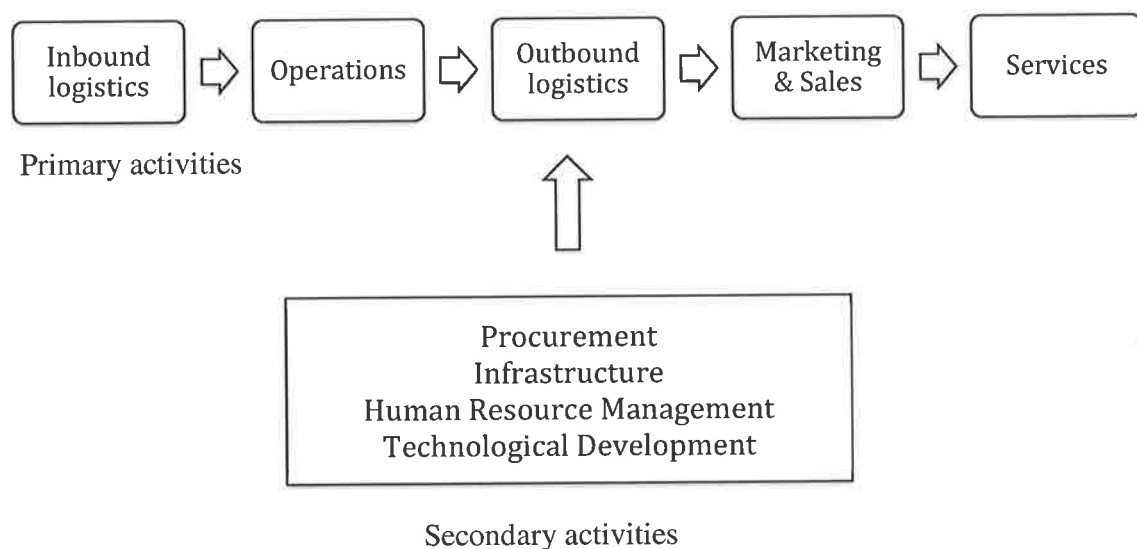
# CHAPTER THREE

# INTRODUCTION TO PLATFORM BUSINESS MODEL

Contrary to the pipeline business model where value is normally created up-stream and consumption is done down-stream, the platform business model allows users and producers to merge on a 'platform' where they create and consume value. Geoffrey Parker, one of the authors of "Platform Revolution," identifies a platform as an ecosystem where people produce and consume value. It is a network rather than a linear business model, and the primary goal of a platform is to consummate match a between consumers and producers.

***The Structure of a Platform Business Model***

According to Geoffrey Parker, there are a number of key players that take part in the platform ecosystem. These key players include owners, providers, producers, and consumers.

*Owners* are the people who own and control the platform. Prior to existence of any platform that connects users, buyers, owners, and providers, there must have been a pioneer mind that had the concept behind formation of the platform. This pioneer mind constitutes the intellectual property that controls the platform, owns the patent rights of the platform, and controls how the various activities take place on that platform.

Google, for instance, owns YouTube as a platform. Google control all the activities that take place on YouTube to ensure that they conform to legal standards and policies of practice. However, Google does not produce all content that is available on YouTube. In fact, millions of videos found on YouTube are products made by various users, producers of the platform.

*Providers* act as the interface between the platform and its users. Providers provide necessary infrastructure that the consumers need to possess to make use of the value created

by producers. Android applications, for example, must be used alongside Android handset devices. Those who create these android apps are owners whereas those who create the necessary handsets that act as infrastructure for android apps are providers. Providers therefore act as a link between the platform and its users.

*Producers* are players in the platform who create value that consumers consume. Since the platform merges producers from all over the world, the owners of the platform do not need any raw materials as in the case of a pipeline business mode. The value is already created by producers and delivered to potential consumers via the platform. For example, freelancers on global freelancing platform, Upwork, create value by applying to jobs posted by consumers.

*Consumers* are the actual recipients of created value by producers on a platform. Ideally, in a well-designed platform, consumers and producers can seamlessly switch sides. For example, in Upwork, one day a user can be a freelancer offering her services and another day she could post a job for another freelancer.

The above four groups of people are the main key players in the platform business model structure as drawn out by Geoffrey Parker. His co-author in "Platform Revolution," Sangeet Paul Choudary, also identifies the platform business model as consisting of three key elements: toolboxes, magnets, and matchmakers.

A *toolbox* creates the necessary connections that facilitate platforms and create or consumer the platform offerings. The advent of modern Web 2.0 technology has facilitated quick communication via Internet platforms. Therefore, Internet communication is a key toolbox that modern platform owners focus on while making decisions to connect with as many platform users as possible. Facebook, for instance, is a platform that makes use of the

Internet as a way to connect billions of people around the world.

A *magnet* is a pull that draws users towards the platform. That pull is contrasted from the marketing strategies that compel consumers to purchase value in a traditional pipeline business model. Creating the pull is tricky, as to attract consumers there should be producers on a platform already, and vice versa. One solution is subsidizing one side of the platform to attract another and after collect data on the interactions that take place within the platform to improve platform's matchmaking ability.
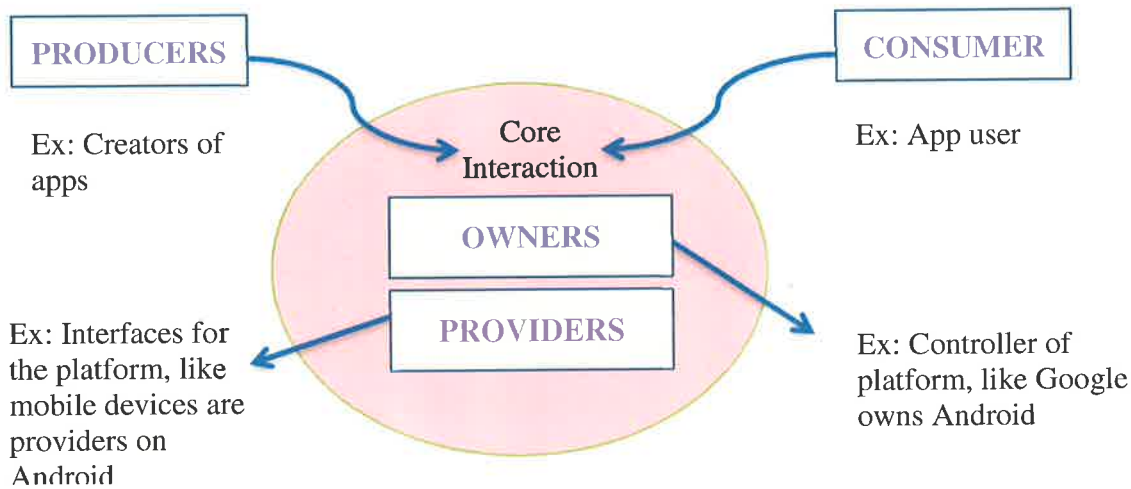
Lastly, Choudary identifies the *matchmaker* as an important element in the platform business model. The matchmaker is an element that facilitates easy flow of offerings between consumers and producers. For example, Netflix "recommends" movies that are similar to ones consumer recently watched.

If pipeline business focus on increasing their sales, platforms focus on increasing the frequency of their *core interactions*. Core interaction is the main value creating activity that happens within a platform. In designing a platform its best to focus on one interaction before adding new ones. For example, LinkedIn initial primary focus was in connecting business professionals, and only after succeeding in doing so, LinkedIn has introduced other possible interactions such as job listings, recruitment options, and e-learning.

The authors of "Platform Revolution" have identified three necessary elements for a successful core interaction. First, of course, there should be the participants – consumers and producers. Second there has to be a value unit that is being exchanged – could be a product or service like in Upwork, content like on YouTube or profiles of people on Facebook. Last element is the filter that facilities search and matchmaking between the users.

*Participants + Value Unit + Filter → Core Interaction*

Exhibit 2: Platform Structure



PRODUCERS

Ex: Creators of apps

CONSUMER

Ex: App user

Core Interaction

OWNERS

PROVIDERS

Ex: Interfaces for the platform, like mobile devices are providers on Android

Ex: Controller of platform, like Google owns Android

***Contributing factors that led to the emergence of platform models***

The fundamental framework that facilitates the successful operation of the platform business model is modern IT technology. It has affected most aspects business operations, forcing firms to innovate to stay competitive in their industries. Initiators of the platform business strategies were motivated by the modern web 2.0 Internet technology that facilitates instant communication all over the world. Emergence of the platform business models can therefore be considered an innovative strategy adopted by some businesses to seize the unlimited growth opportunities provided by Internet technology. Whereas most companies have nowadays embraced the role IT plays in business expansion, only a few have realized how to harness it by creating or shifting their businesses to a platform based business model.

# CHAPTER FOUR

# PLATFORM VS PIPELINE BUSINESS COMPARISON

"Platform Revolution" as described by Geoffrey Parker and co-authors, implies a significant shift in the way firms achieve growth in the 21$^{st}$ century. Hence, there are significant differences between the pipeline business model and the platform business model. The main differences are manifested in the way each of these two business model creates value and approaches its value chain, and specifically suppliers, logistics, operations, marketing & sales, and, also, competition.

Exhibit 3: Pipeline vs. Platform Models Side by Side

| Aspect | Pipeline | Platform |
|---|---|---|
| Suppliers | Central business procures raw mater in form of land, labor, and capital fr suppliers. Focus is on achieving economies of scale and scope. | Owners create infrastructure for individual suppliers (producers), who turn produce value and outputs on a platform. Focus is on creating a network of producers and consumers. |
| Logistics | Value is acquired, stored, transporte and delivered to various recipients ir linear fashion. Goal is to have "Just in time" inventory. Focus is on maximizing efficiency a | Value is created and delivered across network of all platform users. Goal is to have "not even mine" inventory." Focus is on maximizing the value of core interactions. |

| | | |
|---|---|---|
| | minimizing costs of delivery. | |
| Operations | Human capital is owned and control by the central business. Individuals create value for direct benefit of firn and indirect benefit for themselves. Central business controls, governs, a is involved in all activities of value creation. | Human capital is not owned but governed. Producers use their talents create value for their direct benefit an indirect for owners of platform. Owners maintain infrastructure and facilitate value creation. |
| Marketing & Sales | Focus is on pushing the created valu to potential customers at the end of t value chain and on growing sales. High budget and difficult to quantify conversion rates. Minimum information about past transactions, except POS. | Focus is on pulling users to create va on platform's ecosystem and growing the number of core interactions. Initially may be costly to subsidize or side of the network to attract another. Information about transactions made a platform is easily available and can used to improve matching of users. |
| After Sale Service | Central business provides maintenar and support services to promote repe purchases and positive word of mou | Owners of the platform encourage feedback and collect data to improve matching between users Owners monitor and govern participants activity to ensure quality content and that activity stays within the ecosystem of the platform |

| Competition | Focus is on creating barriers to entry, differentiation (Porter's five forces), and core competencies. Competition is one layered. Common strategy is to vertically integrate or M & A to prevent competition. | Focus on reducing friction to entry and maximizing value of the network, community, the ecosystem, and core interactions. Competition is multi-layered. Common strategy is to incentivize innovation on platform, and acquire only critical resource (ex. Owning Calculator on Apple's iOS) |
| --- | --- | --- |

# CHAPTER FIVE

# PLATFORM KEY SUCCESS FACTORS

Many firms running on traditional pipeline business model have greatly succeeded and achieved monopolies in the global market. Such companies include Toyota Motor Corporation that has implemented the pipeline business model using lean manufacturing and lean thinking philosophy. Others include McDonalds that has implemented the pipeline business model through local adaption and global integration techniques. Although these and many other companies have succeeded under the pipeline business model, the emergence of platforms, such as Facebook, Google, Uber, Airbnb, and Alibaba, has caused a major wave of disruption and is threatening to overturn the way businesses have operated for centuries.

The switch over from traditional pipeline model to a platform-based business, however, is tricky and requires understanding of the platform key success factors. This chapter is dedicated to a review of these key success factors such as positive network effects, scalability, governance, monetization, and creation of lasting value.

## *The Power of Positive Network Effects*

Traditional pipeline model is supply-side driven; it is focused on achieving economies of scale and scope, lowest costs and best efficiencies. Those firms, which are advantaged to have higher volume of sales, can reduce prices for their products far much lower than their competitors. This leads to creation of monopolies such as Carnegie Steel and the Rockefellers Standard Oil. Such monopolies ascend to economic power by controlling key resources of production: land, capital, labor.

The platform business model, on the other hand, is driven by demand-side economies. These demand-side economies of scale are also referred to as the network effects.

Instead of focusing on lowering cost of goods and increasing market share, platform based businesses focus on stimulating demand by creating value for each user of the platform. Network effects then refer to a concept that the larger the user base of a well-managed platform, the more value each user will get from the platform and the more valuable the platform becomes. For example, the more drivers Uber attracts, the faster the pick-up time, the more satisfied drivers and passengers are, which attracts even more users to the platform.

To create positive network effects, a company needs to develop competencies in demand aggregation, social interaction, app creation, as well as processes that assist network expansion. Companies that succeed and actualize those competencies realize higher achievement levels and have endless growth opportunities. The larger the community is on the platform, the better the chances of guaranteeing quality matches between demand and supply side, and obtaining richer data that facilitates the same, which at the end produces higher value for all involved:

- Consumers are happy because they receive their desired value (for example just the right video on YouTube).

- Producers are happy because they are rewarded with a currency (for example amount of likes on Instagram photo).

- Owners & Providers are happy when users are happy since they are expanding their ecosystem and/or get monetary reward (for example, Upwork charges a commission fee for transactions made on the platform).

As one of the authors of "Platform Revolutions" once said: "It is much easier to add technology to a community, than community to a technology."

*Scalability*

Scalability refers to the number of sessions, transactions, users, and operations that can be sustained by the whole system. It is important that a platform has the capacity to allow expansion of communities' use of its applications with zero downtime and without compromising services levels. Coming up with scalable and flexible platform architecture involves identifying the pressure points in the application that handle high loads and require improved tolerance levels and better up time. Each aspect of the design needs to be carefully considered in terms of how the identified hard-hit regions can be perked up and the methods in which caching can be reduced to allow better memory footprint.

The present information technology has significantly reduced the requirement to own physical infrastructure or assets when designing a platform business. Developing and scaling up platforms has been made profoundly simpler and economical by the current IT while allowing nearly frictionless involvement that consolidates network effects. This has improved the capacity to capture, evaluate, and exchange big data thereby increasing platform values for all (Moazed, 2016).

*Governance*

The goal of a platform is to successfully match consumers with producers and foster the growth of positive network effects. However, as platform acquires a larger user base it may be difficult to maintain the quality of content and core interactions.

Maximizing value creation in the platform industry involves eliminating barriers to consumption and production or practicing "openness." However, this openness should be introduced in conjunction with a set of rules, as some of the participants who have access to the platform and its activities may come up with their own rules and architecture.

Examples of firms that have succeeded at administering their openness are Airbnb and Uber, which insure and rate their hosts and drivers. Facebook and Twitter have succeeded at ensuring high quality interactions by filtering low-quality applications and providing their clients with tools to prevent stalking.

Platform administrators should decide how open the platform should be by adopting an architecture that gives the needed participants the desired access to platform resources. For instance, an open architecture denies the platform owners the authority to come up with trade and reward sharing regulations and gives it to the participants (Choudary, Parker, & Van Alstyne, 2016). Depending on the architecture, the managers may decide to give participants the incentives to engage but deny them the ability while others may award them the ability and not the incentives. Every successful platform business operates with the architecture that gives participants the best opportunity to interact and draw the best value. Care should be taken to avoid inspiring exploitation fears in prospective partners as this kills potential high-value offerings that guarantee business growth. Adopting architecture plans that give a fair reward to all participants generates a gigantic value for everyone on the platform.

*Monetization*

Monetization on a platform is tricky. On one side the goal is to reduce friction, barriers to entry, but on another, platform is a business that has to make profits.

There are many ways to approach monetization: The participants can be charged for using the platform on the basis of usage, access, or both. Some examples for those are

- *Freemium* – free for core interaction and upcharge for any extra interactions or benefits. For example, apps that offer photo editing often have up-charge for additional tools.

- *"Bar"*– subsidizing one side of the network to attract another. For example, dating platforms often charge males and offer the service free for females.

- *Subscription* – usage fee that is charged periodically. Example is a fitness community "Sweat," which charges its users on a monthly basis.

- *Transaction cut* – charging a commission fee for every transaction. This is a classic model used for online marketplaces – Upwork, Amazon follow the model.

- *Device driven* – giving away one of the two necessary components of the platform and charging for the other one. For example, the app for wearable devices is free, but the device must be bought.

- *Ad-based model* – focus on creating a large user base, and then charge for advertisement. Social media sites such as Facebook and YouTube follow this strategy.

Whichever monetization model the platform choose to use, it mustn't create barriers to entry and it shouldn't take away from the platform's main focus, which is creating high quality core interactions.

### *Creation of Lasting Value*

One of the advantages of the platform is the ability to collect data and introduce new metrics, which allow platform owners to measure the level of success a platform business has managed to achieve.

One such metric is the *level of interaction*, which is the capacity of the business to match consumers with suppliers. The efficiency with which a business matches consumers

with producers directly determines its network effects and eventually its competitive edge. If Uber, for instance, failed to provide enough transport for its clients by consistently showing "no taxis available," on its app, it would lose travelers and in turn its driver downtimes. This would cause low ride availability and the eventual collapse of the business.

*Engagement levels* are a key source of information regarding a platform's success (Sampere, 2016). Successful platforms have a high participation by its ecosystem members that results in improved network effects such as repeat visits and content sharing. Ineffective platforms tend to have a low ratio of daily to monthly consumers, since low levels of engagement result in slow growth of platform's ecosystem and, as a result, value creation for the users.

Lastly, a platform's *match quality capacity* is another indicator of success. Successful matching of consumers to producers is the main purpose of the platform, and those matches should be carefully monitored. One of the ways to measure it is to observe reviews, collect data about the interactions, to be able to improve search results and recommendations for the consumer. Unsuccessful matches result in low levels of engagement or platform abandoning by the consumer, which leads to platform abandoning by the producer and eventual failure of the platform as whole.

# CHAPTER SIX

# THEORY APPLICATION: VEGAN PLATFORM

In this chapter, I will illustrate the discussed concepts of a platform model by applying them to a subject that I am passionate about, veganism. I will create a mock platform start up and perform an industry analysis, evaluate competition, estimate market size, propose platform design and monetization options.

The mock start up I decided to create is *Veganna: App based marketplace that connects vegans to vegan service providers.*

## Industry Analysis

Though in the last five years, the number of vegans has doubled, the total number of vegans is still small relative to total population. For example, only about 3% of the total US population and about 1% of the total UK population is vegan. So even though defining the industry simply as "vegans and pro-vegans" sounds broad, it is already a relatively niche market. However, I will specify the industry by first defining it by the products and services offered and second, by geographic boundaries.

### Scope of products and services

In essence, Veganna is a stage for vegans to exchange information, so all businesses offering similar services have to be considered. I will list them here and go over in detail in the competition section.

- Vegan groups within other social media: Facebook groups, Whatsapp chats, Instagram profiles, etc.

- Non-profit sponsored programs: Peta, Vegan Outreach, Vegan Youth, etc.

- Other vegan apps: Forks over knives, Veg.me, Veggy, etc.

Given the variety of businesses that provide support and sell services to new vegans, I will simply define the industry as **vegan online community**.

*Geographic scope*

Nowadays, with Internet and social media, the geographical boundaries are getting erased – a vegan in Russia is exposed to the same information at the same time as a vegan in the US. However, for the initial growth stages, it is best to choose the countries with the largest vegan population and similar language – so I will confine the industry to **USA and UK** geographically to start with.

Now that I have identified the industry, I will evaluate its attractiveness using the PESTEL frameworks for both USA and UK from the geographic standpoint and PORTER's from the product and services standpoint.

Exhibit 4: Theory Application: PESTEL USA

| P | - One of the most stable governmental systems |
| | - "Big brother" state |
| E | - Decline as world's superpower country, losing to BRIC countries |
| | - Relatively stable inflation and unemployment rates |
| | - General optimism for future economic outlook |
| S | - Millennials and Gen Z look for occupation that is meaningful to them |
| | - Health and animal right movements are on the rise |
| | - General trend to move towards sustainable development and consumption |
| | - Most purchases happen through mobile devices |
| | - Concerns about cyber-security |

| | | |
|---|---|---|
| | - | Fears about high insurance and medical care costs |
| T | - | Smartphones and other digital devices have become affordable for almost anyone |
| | - | Free wifi connection is easily available |
| | - | Internet of things devices are gaining more traction |
| | - | Most communication happens via technology on social media platforms |
| E | - | Heightened awareness of global warming and climate change |
| | - | General trend to move towards sustainable practices |
| L | - | Strict competition and antitrust laws |
| | - | Many small business and start up support centers |
| | - | Straightforward business set up procedures |

Conclusion: Even though USA has lost some of its prestige in the world, it is still one of the most regulated, safe, and advanced countries to operate in. Societal and environmental attitudes create a favorable ground for businesses that promote sustainable practices and affordable technology allows access to mobile-based businesses for almost anyone. One trend relevant to "V" industry to keep in mind is transparency and cyber security.

Exhibit 5: Theory Application: PESTEL UK

| P | - | One of the most stable governmental systems |
|---|---|---|
| | - | "Big brother" state |
| | - | Significant influence on other European countries |
| E | - | High standard of living |

| | |
|---|---|
| | - Many resources are spent on welfare and free public services<br><br>- Many jobs are at risk of automation |
| S | - Densely populated<br><br>- UK is one of the pioneers in animal rights and vegan movement<br><br>- Being sustainable is a social norm<br><br>- Millennials and Gen Z are "voting" with their dollars by consuming products t<br><br>  have positive effect on environment<br><br>- Most purchases happen through mobile devices |
| T | - Most communication happens via technology on social media platforms<br><br>- Free wifi connection is easily available<br><br>- Smartphones and other digital devices have become affordable for almost anyo |
| E | - General acceptance of climate change<br><br>- General trend to move towards sustainable practices |
| L | - Strict competition and antitrust laws<br><br>- Many small business and start up support centers<br><br>- Straightforward business set up procedures |

Conclusion: Even more so than the US, UK population actively promotes and favors sustainable practices. In fact, London alone has over 100 vegan and vegetarian restaurant establishments. Then, just as in USA, in UK most people have access to smartphones and Internet connection. All of these factors are favorable for an app-based business.

Exhibit 6: Theory Application: Porter's Five Forces: Vegan Online Community

| Threat of New Entrants HIGH | There are low financial barriers to entry and since the industry is blossoming many new entrants are expected. |
|---|---|
| Threat of Substitutes MEDIUM | Since all online resources are included as competition, the only substitute left are: books and personal connections. The former lacks interaction and the latter are rarely found within the same geographic location. |
| Bargaining Power of Suppliers MEDIUM | Suppliers in the case of a platform-based business are the producers of content on a platform. Given the right incentive, producers will create quality supply of information. Also, given the platform has gravity; there are many suppliers to choose from. The tab is colored yellow or medium due to a challenge of creating gravity within a platform, which will be discussed later in the design section of the chapter. |
| Bargaining Power of Buyers MEDIUM | Buyers in the case of platform-based business are the consumers of content on a platform. Given the right content, the consumers are easy to attract and due to positive network effects, the switching costs are high and consumers/buyers are not likely to leave the platform for competition. However, the tab is colored yellow or medium due to difficulty of creating positive network effects, which will be discussed later in the design section |
| Industry Rivalry MEDIUM | There are many websites that allow vegans to interact with each other, however most of them are not user friendly and not thorough. |

**Conclusion**: Though PORTER's five forces framework is a great tool to use to evaluate

general profitability of the market, it doesn't include the value of network effects generated and only considers external forces as depletive that draw value from a firm and therefore require building the barriers against. For platform businesses, the power of the community (suppliers and customers) is crucial for success as opposed to the supply-side world where they are regarded as threats (Vision, 2016). In order to create a successful platform strategy, it is important to comprehend when external forces are beneficial or harmful to the ecosystem. Vegan online community is fractured with quickly rising demand and few existing communities, hence the conclusion that the industry is promising and possibly profitable.

Exhibit 7: Theory Application: Vegan Industry Maturity Curve
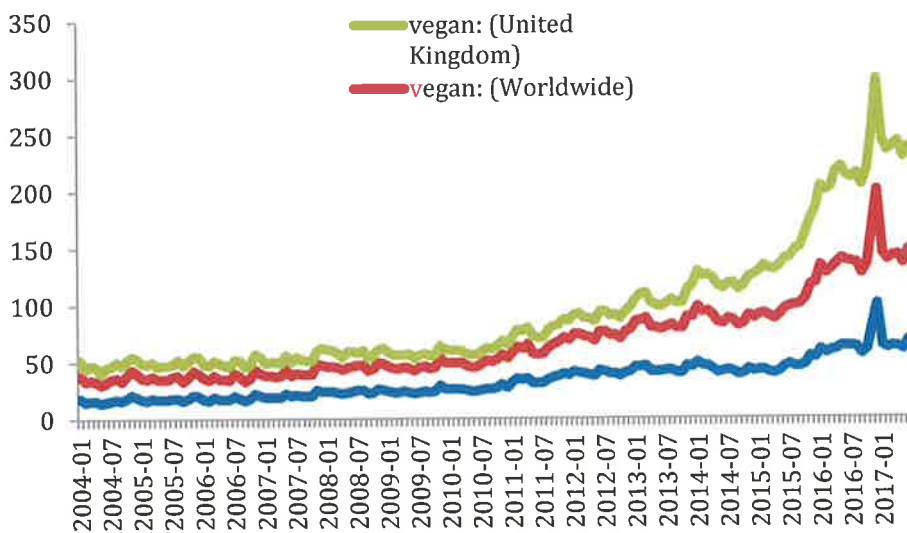


*Information taken from Google Trends, search word: "vegan"*

Since 1990s world vegan population has grown from a few million to about 550million. In the USA, vegan population has grown at around 13% compounded annual growth rate over the past 10 years. And today, with the evolution of IT and social media,

countless number of vegan bloggers, writers, nutritionists, chefs, restaurateurs have entered the industry. However, the demand outpaces the supply and there are still not enough services and products to serve quickly growing vegan population. Based on those findings and personal observations, I conclude that the industry is in its *growth* phase.

Exhibit 8: Theory Application: Growth Phase



Time
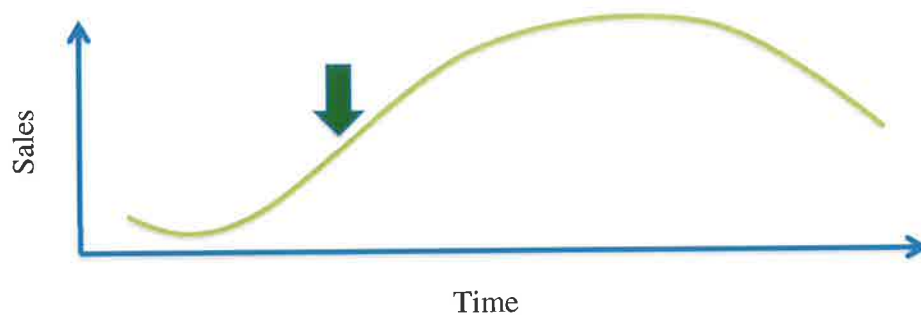
## Competition

There is currently no stand-alone vegan services marketplace, but there are several that provide different types of vegan services or products.

First, **Vegan groups within other social media**: Facebook groups, Whatsapp chats, Instagram profiles, Meetup groups etc.

Exhibit 9.1: Theory Application: SWOT, social media

| Strengths | Weaknesses |
|---|---|
| Those are usually established servic | There is a lot of irrelevant "noise" |

33

| | |
|---|---|
| with many existing users who are very famili with a platform. They are easy to use, to join and to leave. | since a vegan group or a page only covers on topic in a sea of topics that those social medi platforms offer. Also, the content has to be continuously introduced by the owner as the group usually doesn't involve incentives for other group members to produce value. |

Second, **non-profit sponsored website vegan mentor programs**: Peta, Vegan Outreach, Vegan Youth, etc.

Exhibit 9.2: Theory Application: SWOT, mentor programs

| Strengths | Weaknesses |
|---|---|
| Specialized services targeting specifically vegans and those who want to become vegan. Those websites do provide mentor-mentee programs by offering to sign with their website. | The mentor-mentee programs in tho organizations are neither user-friendly nor interactive. They require a lengthy sign up process and a certain wait period for someon to respond and be matched with the mentor. |

Third, **chat and message options within existing vegan social media app-based platforms**: Forks over Knives, Veg.me, and Veggy.

| Strengths | Weaknesses |
|---|---|
| These are vegan platform that are relatively easy to use and cater specifically to vegans. | Each performs a slightly different function: mo are platforms for recipe sharing like Forks over Knives, and few are aspiring vegan social media sites like Veg.n and Veggy. The former allow few opportunities for mentor-mentee interaction and advice, and the latter are still at embryonic stages with few users and many glitch |

After considering all strengths and weaknesses of existing competition, below is the visual representation of the competitive landscape, where:

- Horizontally axis shows close the business is to providing the same services as Veganna

- Vertical axis shows how easy it is to navigate the service provided

- The shape size represents amount of users currently, or in case of Veganna, in the future.

COMPETITIVE LANDSCAPE
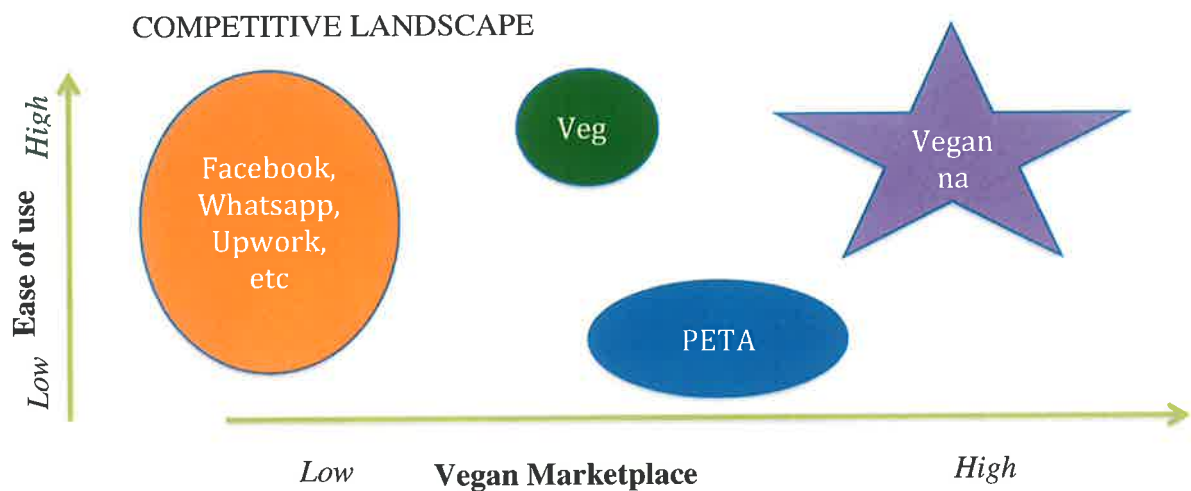


Even though there is a substantial number of users on sites like Facebook and organizations like PETA, there is not one platform that is both easy to use and that is exclusive for vegans wanting to connect to vegan experts.

In the demand driven economies, competition also could be regarded as an opportunity to embrace collaboration and interactions among producers and consumers. Platforms bring together various users who can interchange the roles of production and consumption, thus leading to healthy interactions in the platform ecosystem. Coupled with the fact that industry is still in its growth stage, the only threat to new entrant to vegan online community is its own ability to create value and attract both producers and consumers.
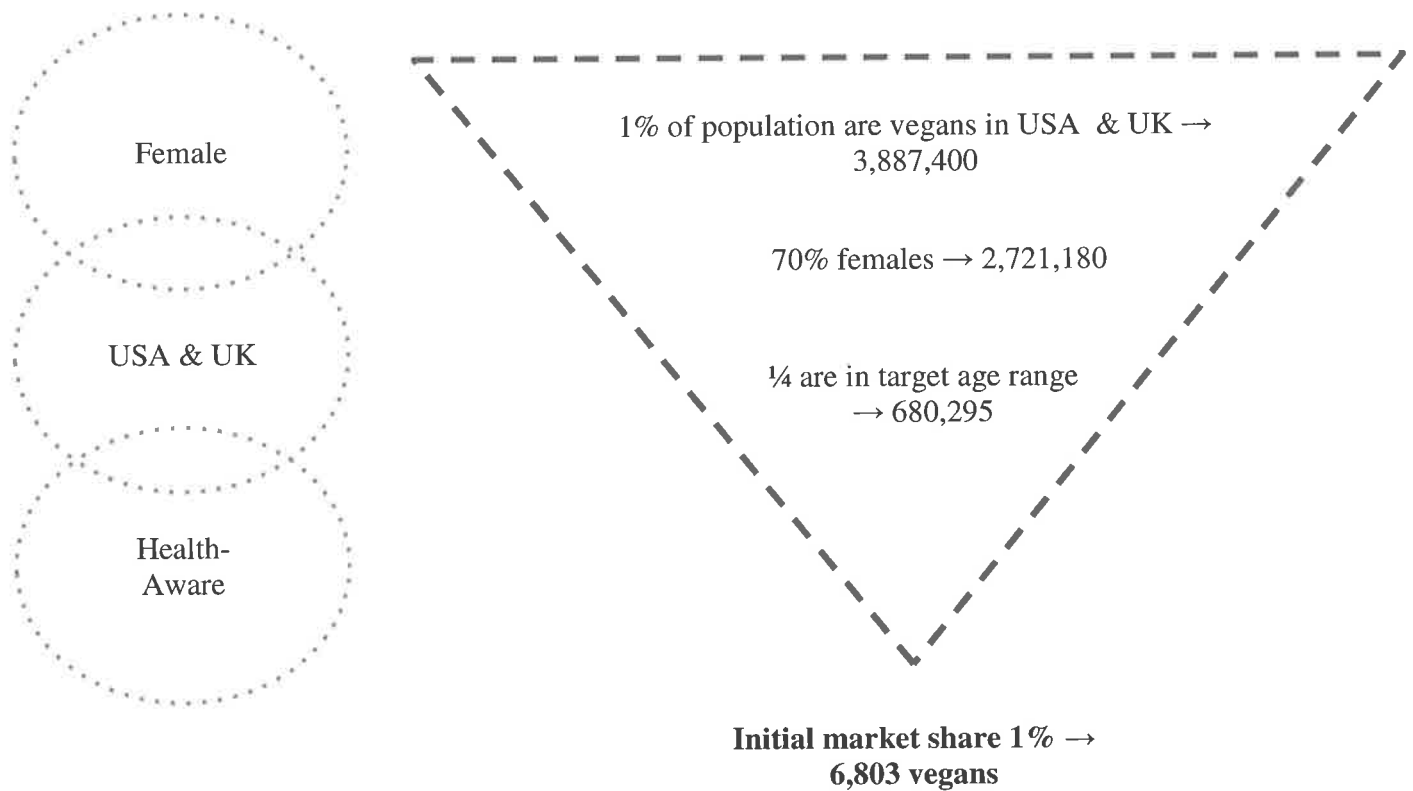
***Target Market***

Now that the industry and competition is evaluated, next step is determining target customer segment for Veganna.

On a platform, the boundaries between producers and consumers are blurry, since one can become another few times a day. Also, both producers and consumers are coming from

the same customer segment, so I will estimate the same target market for both users. Based

my findings, and using data from World Bank, Wikipedia, USA census and Vegan Bits, the

likely early adopters for both producer and customer sides are:

Exhibit 11: Theory Application: Target Market



1% of population are vegans in USA & UK →
3,887,400

70% females → 2,721,180

¼ are in target age range
→ 680,295

Female

USA & UK

Health-
Aware

**Initial market share 1% →**
**6,803 vegans**

This niche segment is best categorized as a "tribe" in a sense that even though the

individuals in the group are very diverse and lead very different live, they have one shared

understanding and passion for personal health and animal welfare. This characteristic of a

belonging to a 'tribe" is highly favorable for the platform business purposes since it will

positively contribute to the growth of network effects.

*Platform Design*

Industry and market analysis is useless if the business lacks substance and doesn't create value. To avoid that from happening, I will apply the platform model business concepts as discussed in the previous chapters and outlined by Parker and co-authors of "Platform Revolution."

First, Veganna is essentially a two-sided network, requiring at least two parties to be present for the platform to create value as intended.



In Veganna, producers, who are vegan service providers, such as nutritionists, coaches, detox specialists, vegan mentors, writers, and chefs, get matched with the consumers who are either vegan or want to become vegan. Matching can be initiated on the platform by either party through the use of filters, such as location, type of service or keyword, ratings, or by posting a request or an offer.

Once the two sides are matched, core interaction has to take place. Core interaction, as defined by Geoffrey Parker, implies an exchange of value between the producer and consumer, and comes in a form of good or services, information, and has to be followed by some type of currency. In Veganna, just as any marketplace, the interaction is very straightforward – the producers offer their services for a fixed or negotiable price and consumers pay, in dollars. Once the producers are connected to consumers, they can agree to terms without exchanging any private information. Only after the parties agree to terms, the
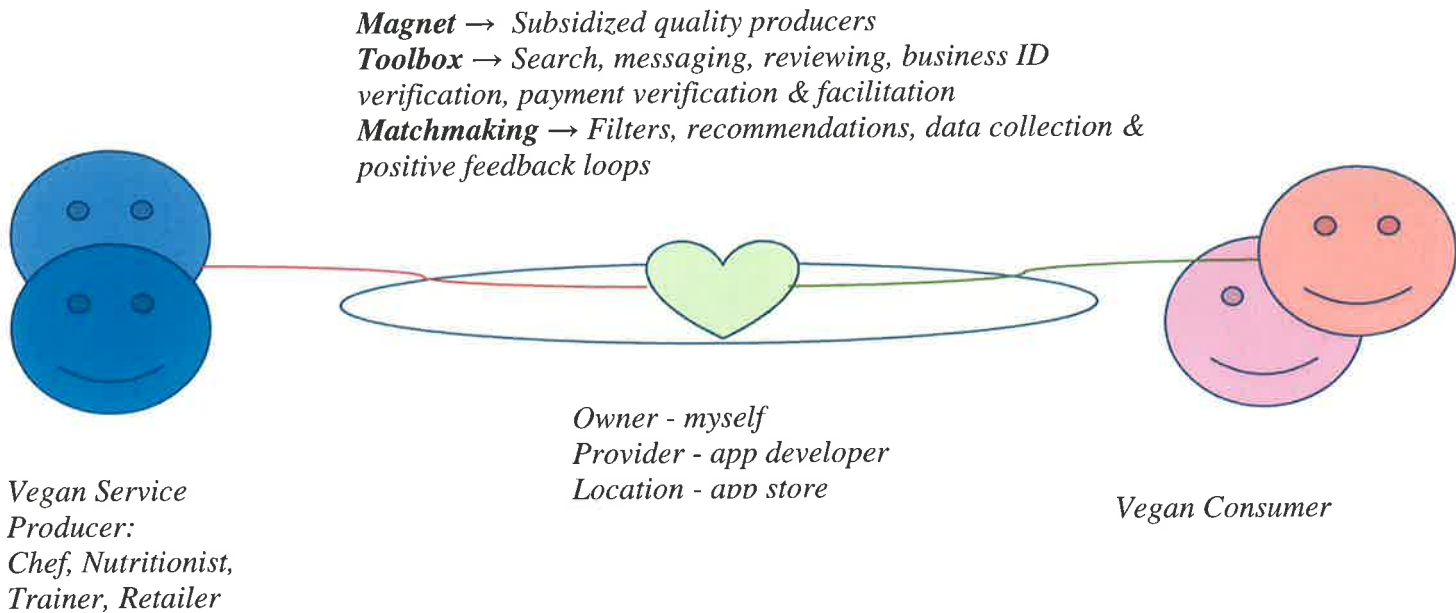
payment can take place. Veganna would hold the total amount of funds in escrow and will distribute the funds at different milestones of the service as agreed upon between the parties, for example – once agreed, half-through, once completed, and if desired, a consumer may give a bonus to the producer.

Another main benefit of the platform is security. The billing information of the consumers will be verified by platform's manager once the user signs up, and will be kept private. The producers, on other hand, will need to provide personal identification and, optionally, provide business identification, and both IDs will be verified. On the platform, the level of verification will be seen publically – either "personal ID verified" or "personal and business verified." Consumers, on their side, will be able to search by that level verification. These two elements of security will give all parties some assurance that they won't be scammed and will create a "magnet" that will keep the parties on the platform instead of taking the transaction outside of it.

As the interaction is completed, producers and consumers are required to review each other and, optionally, may also leave a comment. These reviews will improve both sides' credibility and allow for better ranking on the platform search.

Value of Veganna is then not in creating the actual value unit, which is done by the producers, but in facilitating, providing tools, and governing the exchange of the value unit. That is the one of the main differences of the platform-based model from the traditional pipeline business model.

**Magnet** → *Subsidized quality producers*
**Toolbox** → *Search, messaging, reviewing, business ID*
*verification, payment verification & facilitation*
**Matchmaking** → *Filters, recommendations, data collection &*
*positive feedback loops*

*Owner - myself*
*Provider - app developer*
*Location - app store*

*Vegan Service*
*Producer:*
*Chef, Nutritionist,*
*Trainer, Retailer*

*Vegan Consumer*

***Positive Network Effects***

The most difficult part of launching a platform is deciding which side of the platform to attract first and how to attract it. Traditional push strategies used in pipeline-based models are not sustainable in the long run; the platform-based business instead needs to create the magnet or pull the producers and consumers to use the platform. Then, once the pull challenge is completed, the next big challenge is to foster positive feedback loops and growth of the ecosystem as a whole.

The first step in creating that pull is reducing friction, or barriers from the moment potential users find a platform to the moment they use it, and increasing availability, or access to the platform. To reduce friction, all functions except for the ability to interact will be available before new user has even signed up with the platform. So, before new users signed up, they can already: search for experts and see their bio, services provided and

whether they are verified, as well as learn how the platform operates. When the new users are ready, then they will spend some time filling the sign up information – name and billing info for consumers, or services offered, personal and business ID info for the producers. Then, the access to the platform will be increased by having it available as a website, and on App Store and Google Play.

Second step in creating the pull is actually deciding which side of the users to attract first. I believe in attracting the producers first as they are the creators of value on the platform and the ones getting paid for it.

On Veganna, producers could be selected from the pool of social media influencers and subsidized for joining the platform. Producers could be bribed with actual money or with an agreement to have a year of commission-less transactions. Producers could also be incentivized to bring their following to the platform by giving them a cut from each transaction made by their followers – it can be tracked by using a special code at check out. This way both the producers and consumers can be pulled into the platform without Veganna directly advertising its services.

Once Veganna achieves a large enough user base, the challenge is to retain them and keep interaction levels at a high level. If there is a large enough network of both producers and users that is well governed, then the only task is to make sure that the interactions are not taken off the platform and all transactions after the first one also happen through the platform.

By using the pull strategy mentioned earlier, I assume that the network will grow and reach an acceptable number of users within relatively short period of time. Then, the hope is that by acting as an escrow in releasing funds and by offering some project management tools, such as creating milestones, getting notifications on progress, and adding

different service providers to the same project, that will create enough stickiness or gravity to the platform that it will incentivize users keep their interactions inside it.

*Scalability*

Scalability is an ability of a platform to expand in size quickly and easily. The platform has to have the capacity to host as many users as would be interested. It also implies creating systems and processes that reduce human element of the platform to the minimum yet keep the effectiveness of it. Since all content and value in Veganna is user generated, the main job of an app developer will be creating algorithms that

- Curate the platform: block users who share their credit card or email information or use profane language;
- Show producers that fit consumer's search keywords best;
- Allow crowd-curation in which all users can flag someone as abusive or inappropriate.

Having a qualified app developer is clearly an essential part of creating a successful platform, and a complex marketplace platform that involves financial transactions has to be handled with special care and thought-through design.

*Governance*

Proper governance within a platform is another necessary element for the creation of positive network effects, whereas lack of it is a guarantee of failure. Without rules, any nation would turn into chaos and anarchy, and platform is a little nation in itself. To function properly, it must be governed by a set of rules.

According to Parker, the rules of governance must be in place to facilitate the creation of value and fair environment for all parties involved. I will classify the rules into

two types – behavioral and financial.

*Behavioral.* As the name implies, this set of rules covers what users are allowed and not allowed to do:

- Each producer will need to verify their personal information and, encouraged to verify their business information.

- Only vegan producers are allowed to enter the marketplace. All producers will be required to check the "vegan" box before signing up. That box will show in their profile.

- All types of consumers are welcome to join, as only vegan producers are available.

- No users are allowed to share their email or credit card information. This will be policed by a set of algorithms. Those who violate this rule will be blocked from using the platform.

- No profanity or abusive language is tolerated. This will be policed by a set of algorithms as well as crowd curation that encourage flagging users that use abusive language or service.

- All users are required to review each other after the interaction is completed.

*Financial.*

- Customers billing information is verified before the transaction occurs.

- The agreed upon payment for the service is taken out of the customer's account and kept in escrow until completion of milestones to ensure fairness for both parties.

- The transaction fee due to Veganna happens at a time of the interaction completion. The fee structure is the same for all producers:

   - 10% for transactions between $0 - $10,000

- 5% for all transactions over $10,000.

*Monetization*

The revenues will be made through charging transaction commission fees at a time of the interaction completion. Given the market size and the fee structure discussed in previous sections, the simplistic financial business plan will look as the following.

Exhibit 14: Theory Application: Monetization

| | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|
| Market growth% | | 13.00% | 13.00% | 13.00% | 13.00% |
| Market share | 6803 | 7687 | 8687 | 9816 | 11092 |
| Transactions per year per consumer | 2 | 3 | 3 | 3 | 3 |
| Total | 13606 | 23062 | 26060 | 29448 | 33276 |
| Average transaction amount | 70 | 70 | 70 | 70 | 70 |
| Commission | 10% | 10% | 10% | 10% | 10% |
| **Revenues** | **$95,242.00** | **$161,435.19** | **$182,421.76** | **$206,136.59** | **$232,934.35** |
| | | | | | |
| Initial Investment | $(40,000.00) | | | | |
| SG & A (20%) | $(19,048.40) | $(32,287.04) | $(36,484.35) | $(41,227.32) | $(46,586.87) |
| **EBITDA** | **$36,193.60** | **$129,148.15** | **$145,937.41** | **$164,909.28** | **$186,347.48** |

The startup success rates are very low, so the revenues and profit numbers may mean nothing. However, if all factors align, it appears that Veganna has a high change of being profitable and successful.

*Future Growth*

There are over 1.5 billion English-speaking people in the world today. At least 1% of them are either vegetarian or vegan; that amounts to 15,000,000 people, and the number is

growing every year. This is really the size of the potential market that Veganna can develop within the next 20 years.

As the platform grows, the company's primary focus would be collecting data from the interactions done within the platform to provide quality service. The information collected then would be used in making decisions in regards to governance, type of services offered, and monetization.

Then, Veganna would also focus on increasing its access by being available to download from other android app stores. The platform could also consider hiring salespeople and customer service representatives to improve both the quantity and quality of interactions made within the platform.

Overall, the goal is to create something valuable and easy to use for both producers and consumers. Or in the words of Brian Chesky, the founder of AirBnb: "Build something 100 people love, instead of something that 1000000 kind of like."

# CHAPTER SEVEN

# PLATFORM BUSINESS: GLOBAL IMPACT

The information technology revolution of services has started with the Internet and was, to a degree, a strategic reaction to the intense price-based competition among manufacturers of relatively similar commodities. These IT-enabled services revolution was grounded on the execution of computable algorithms to myriad of industries ranging from leisure to manufacturing. The platform structure has evolved as a result and caused reconfiguration among some of the global businesses.

Platform-based businesses such as Facebook, Amazon, and Uber have radically changed the way people socialize, consume, work or generate value in the economy. Platform businesses are connecting consumers with producers in ways that are threatening the survival of regulated service providers. The value-generating ecosystem between various participants has contributed to the reorganization of the global economy in terms of how markets function and how utility is created. They have disrupted the traditional structure of economic activity by revising the value creation logic, rearranging entry barriers, repackaging work, manipulating regulatory arbitrage, relocating power in the economic systems (Ambani, 2016).

Though tech companies were the first ones to efficiently master platform architectures, the business opportunities resulting from the model are now opening up for every industry. Retail, media, business & professional services, and consumer products, are the first in line to be disrupted as their business structures are asset-heavy and given the current technologies that dropped the entry barriers, today thousands of new talented providers and producers to enter the market and create and exchange value via digital

platforms. Then, the information-rich industries, such as banking, insurance, education, industrial services, and healthcare are next in line to be disrupted. These industries had slower adoption rates due to extensive regulatory controls, high-failure costs, and privacy concerns. As more technologies and processes evolve in the market reducing those risks, the world will see a complete transformation in how we go through our lives – from the moment we are born, each individual's path will be personalized based on the value he or she is seeking instead the norm that has been pushed to the masses for centuries.

# REFERENCES

Parker, G., Van Alstyne, M. & Choudary, S.P. (2016). Platform Revolution: How Networked Markets Are Transforming the Economy and How to Make Them Work for You. *New York, New York: W.W. Norton & Company.*

Ambani, P. (2016). Why 'platform thinking' holds the key to success in modern business. *Virgin .*

Berger, I. W. (2016). The Rise of the Platform Economy. *The Wall Street Journal .*

Choudary, S. P., & Vyas, V. (2017). The Four Essential Pillars of Successful Platform Businesses. *Insead Knowledge .*

Choudary, S. P., Parker, G., & Van Alstyne, M. (2016). How to Build a Successful Platform Business. *Insead Knowledge .*

Choudary, S. P., Parker, G., & Van Alstyne, M. (2016). Making Money Out of a Platform Business. *Insead Knowledge .*

Choudray, S. P., Parker, G., & Van Alstyne, M. (2016). Eight Ways to Launch a Successful Platform Business. *Insead Knowledge .*

Kenney, M., & Zysman, J. (2016). The Rise of the Platform Economy. *Issues in science and technology .*

Moazed, A. (2016). What is a Platform? *Applico .*

Sampere, J. V. (2016). Why Platform Disruption Is So Much Bigger than Product Disruption. *Harvard Business Review .*

Van Alstyne, M., Parker, G., & Choudary, S. P. (2016). Pipelines, Platforms, and the New Rules of Strategy. *Harvard Business Review .*

Vision, T. (2016). Platform Economy: Technology-driven business model innovation from the outside in. *accenture* .

Wray, S. (2016). Partnerships and platforms key to preparing for disruption, say CSOs. *Inform* .