On Platforms

Dr. Nicholas Aristotle Demos

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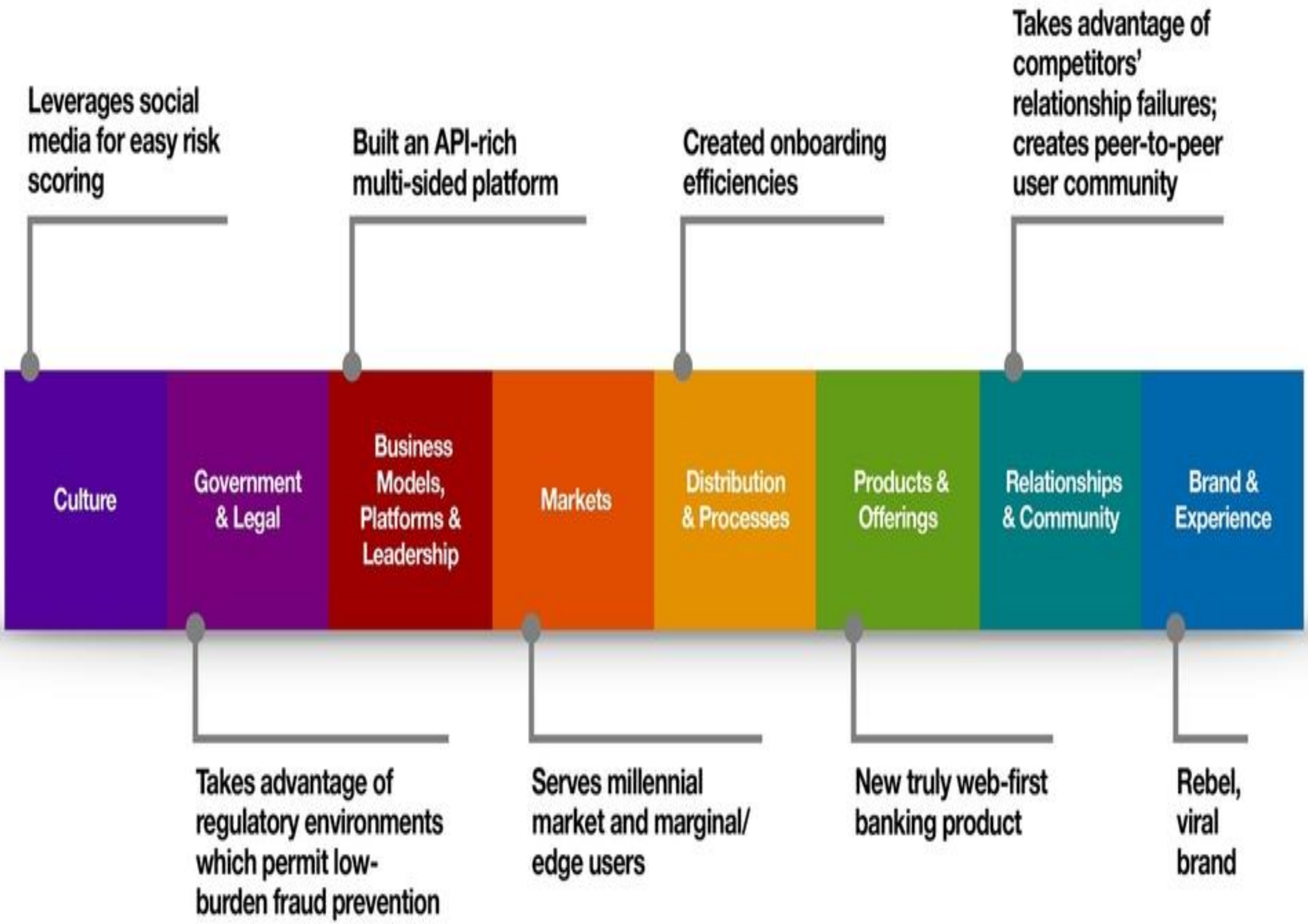
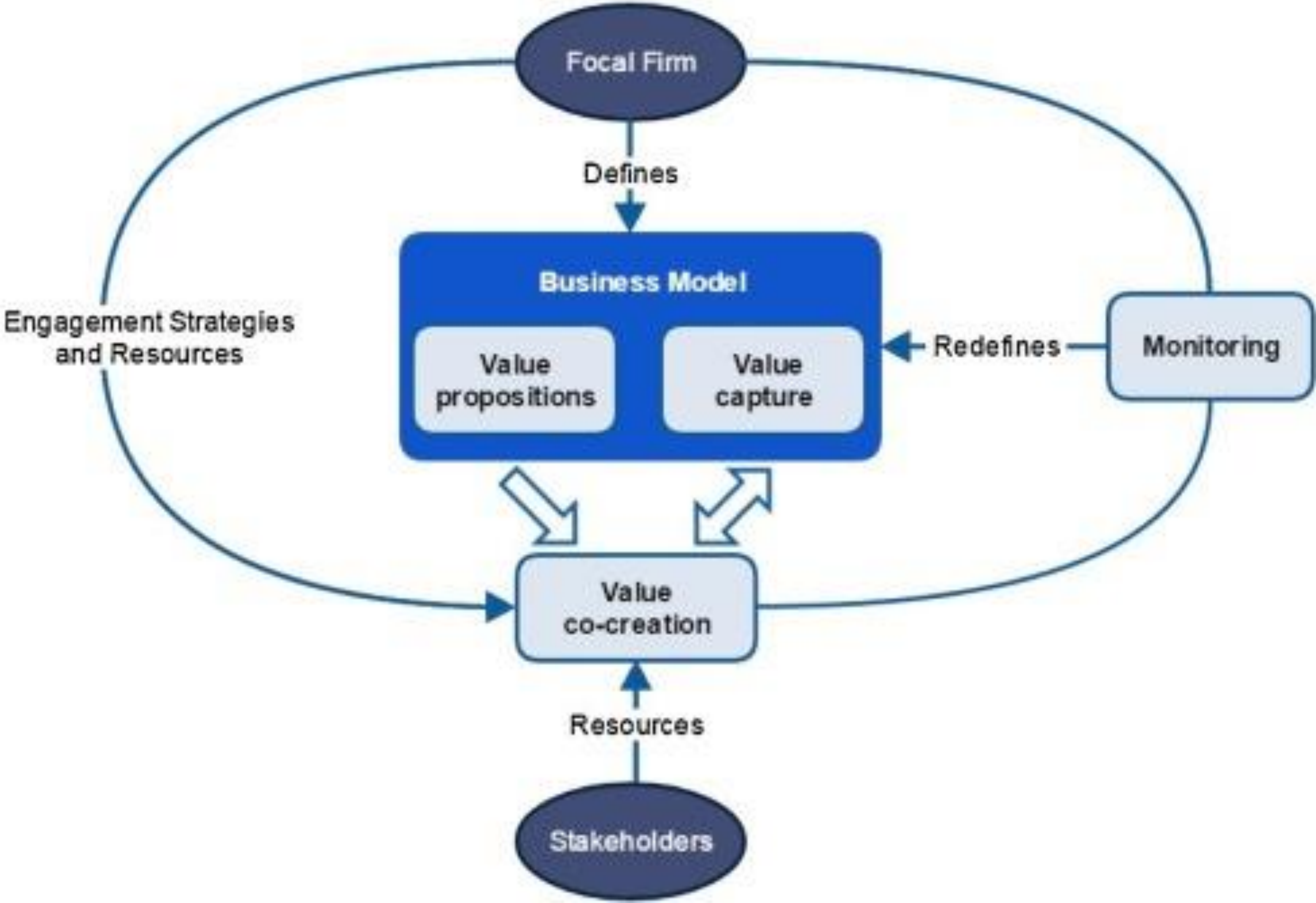
1) Understanding & Defining Platforms

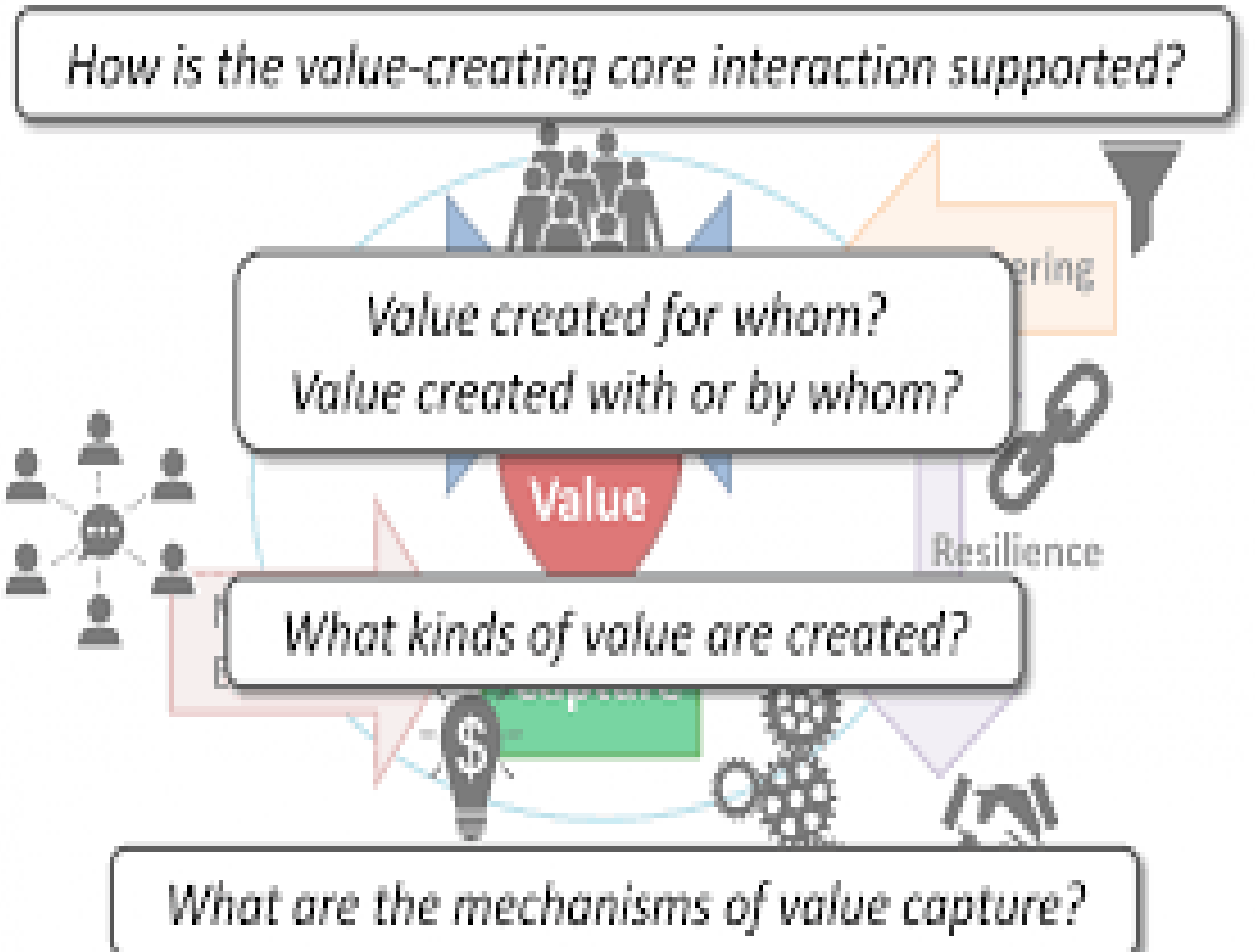
Understanding & Defining PLATFORMS

Market Challenges today ...

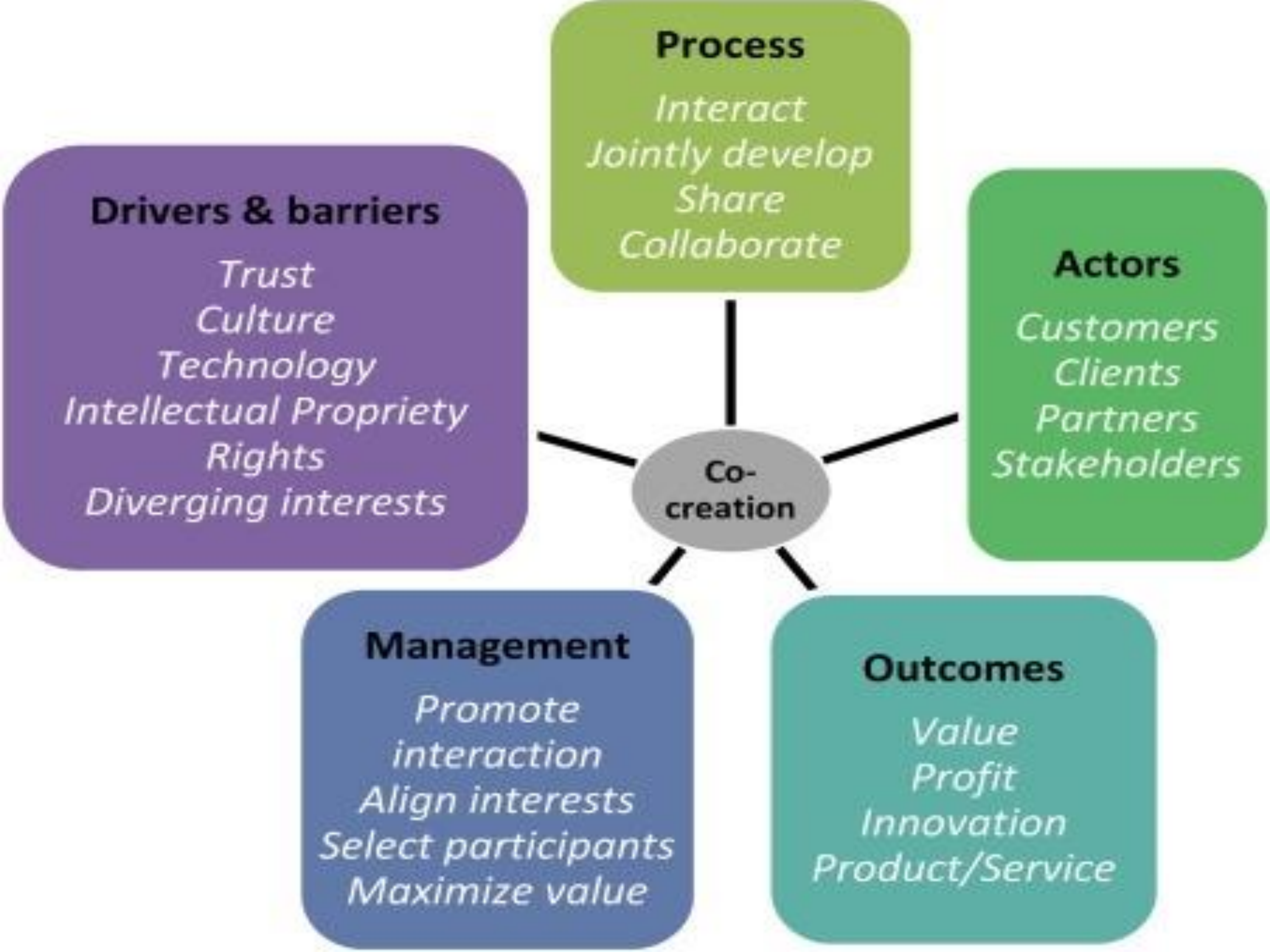


Conventional – Traditional Firms -structures

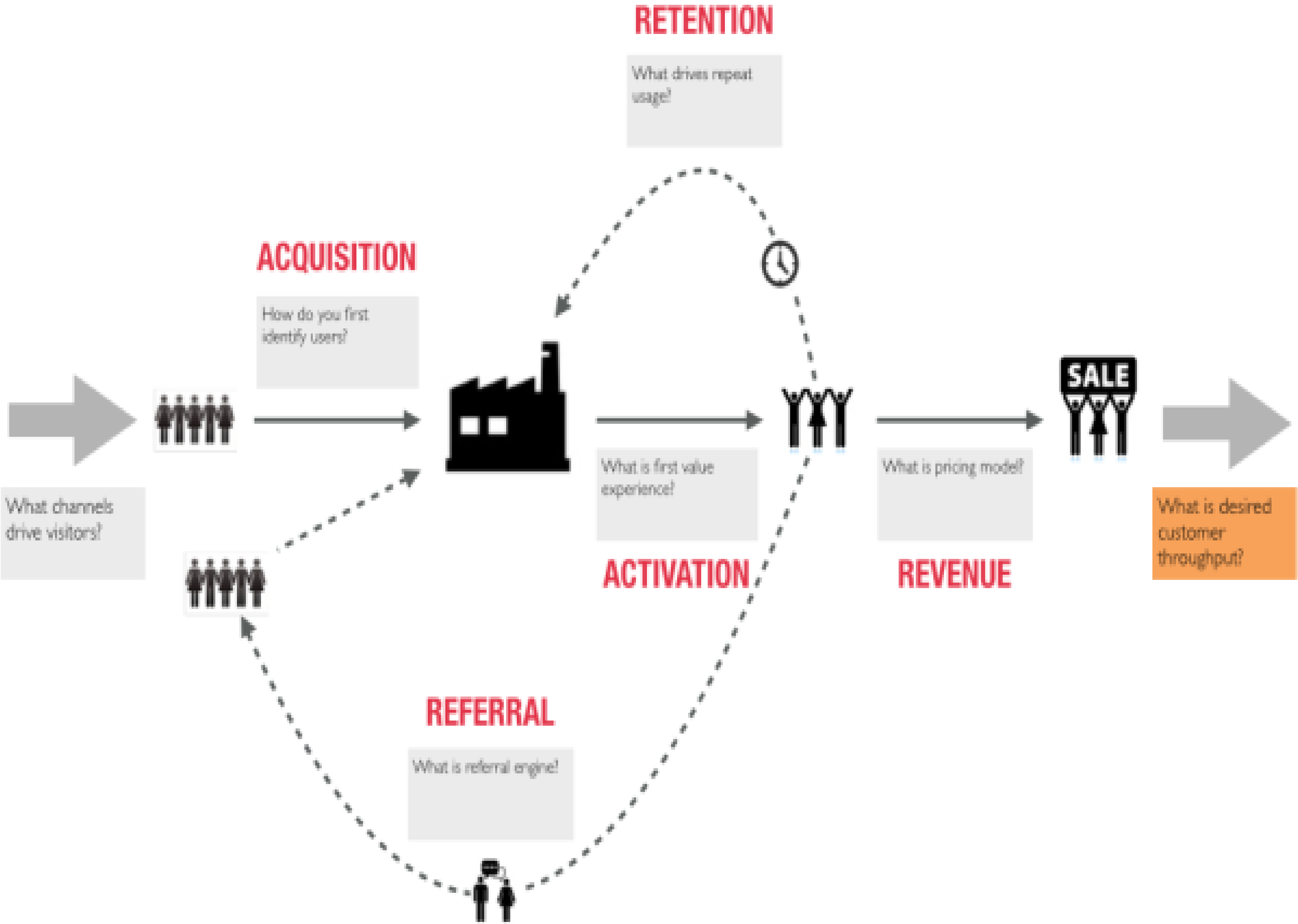




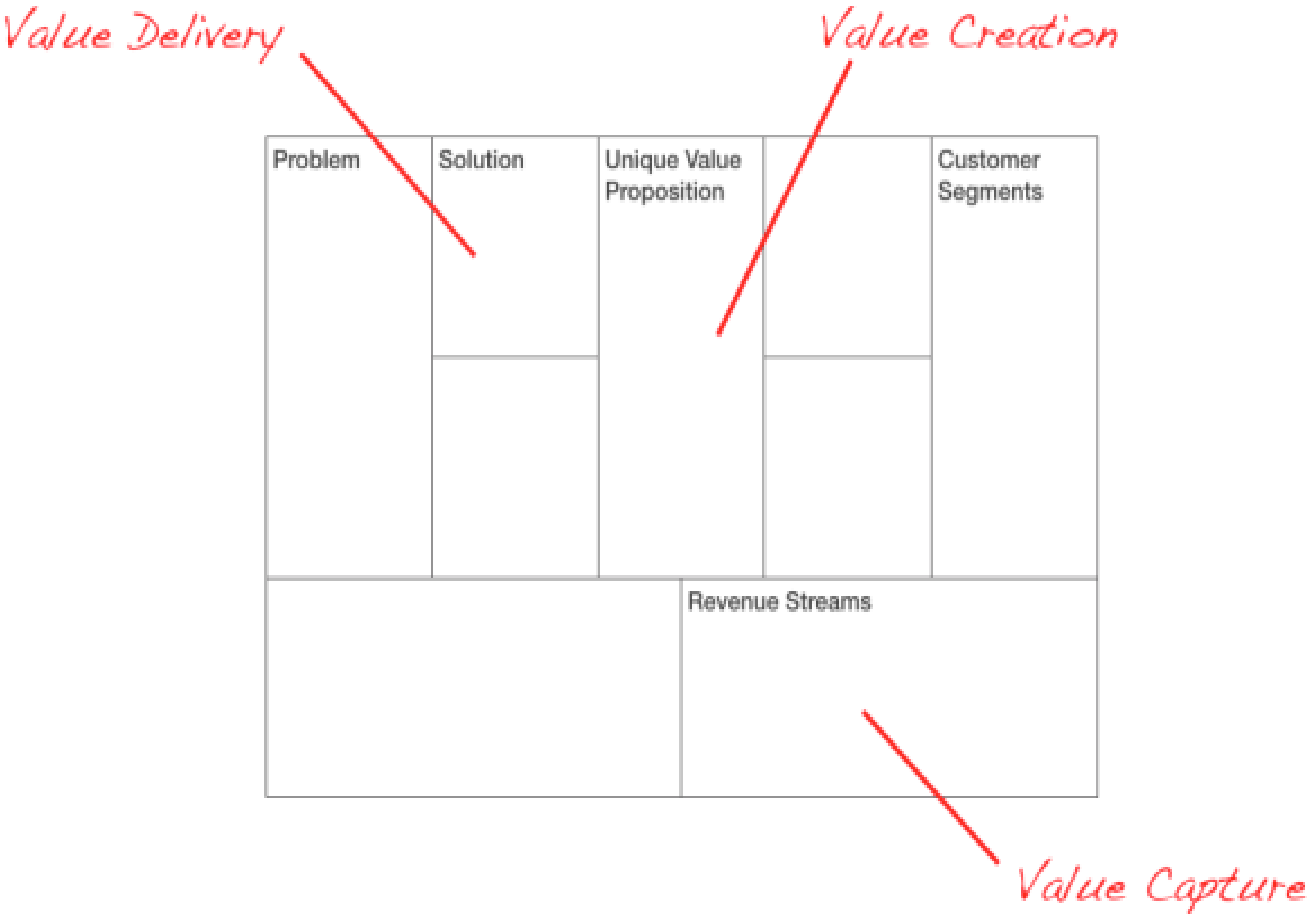
How is the value-creating core interaction supported?
Value created for whom?
Value created with or by whom?
Value
Resilience
What kinds of value are created?
What are the mechanisms of value capture?



Process
Interact
Jointly develop
Share
Collaborate
Drivers & barriers
Trust
Culture
Technology
Intellectual Propriety
Rights
Diverging interests
Actors
Customers
Clients
Partners
Stakeholders
Co-creation
Management
Promote interaction
Align interests
Select participants
Maximize value
Outcomes
Value
Profit
Innovation
Product/Service



RETENTION
What drives repeat usage?
ACQUISITION
How do you first identify users?
What channels drive visitors?
SALE
What is first value experience?
What is pricing model?
What is desired customer throughput?
ACTIVATION
REVENUE
REFERRAL
What is referral engine?



Value Delivery
Value Creation
Problem
Solution
Unique Value Proposition
Customer Segments
Revenue Streams
Value Capture

DNA Lean Canvas for VisionaryD.com

Hypotheses for a Community-Transformation Search Engine

Solution

VisionaryD:
A Crowdsourced Search Engine (Platform) That Facilitates

- Simpler
- Faster
- Inexpensive

Processes
Especially Using the Business DNA Model of Every Org. on the Planet

Key Metrics

E: Engagement
A: Acquisition
R: Retention
R: Referral
R: Revenue

Unfair Advantage

Faster Application of Business DNA Technology, Innovation, Disruption, and Body of Knowledge

Unique Value Proposition

- ➢ Rapidly Improve Business Model Agility
- ❑ Get Info on Business DNA Model 24x7
- ◆ Get More Exposure/ Prospects

Problem

Complex, Slow, and Expensive Tolos for Achieving Big Goals & Ideas

Channels

- ❑ Online: visionaryd.com businessmodels.ning.com
- ❑ Twitter; Facebook
- ❑ Slideshare

Customer Segments

Distributed Product Innovation Team (DPIT)

◆ Advertiser

Cost Structure

- Staff/Administrative/Legal Cost
- Equipment/IT Infrastructure Cost
- Facility Cost

Revenue Streams

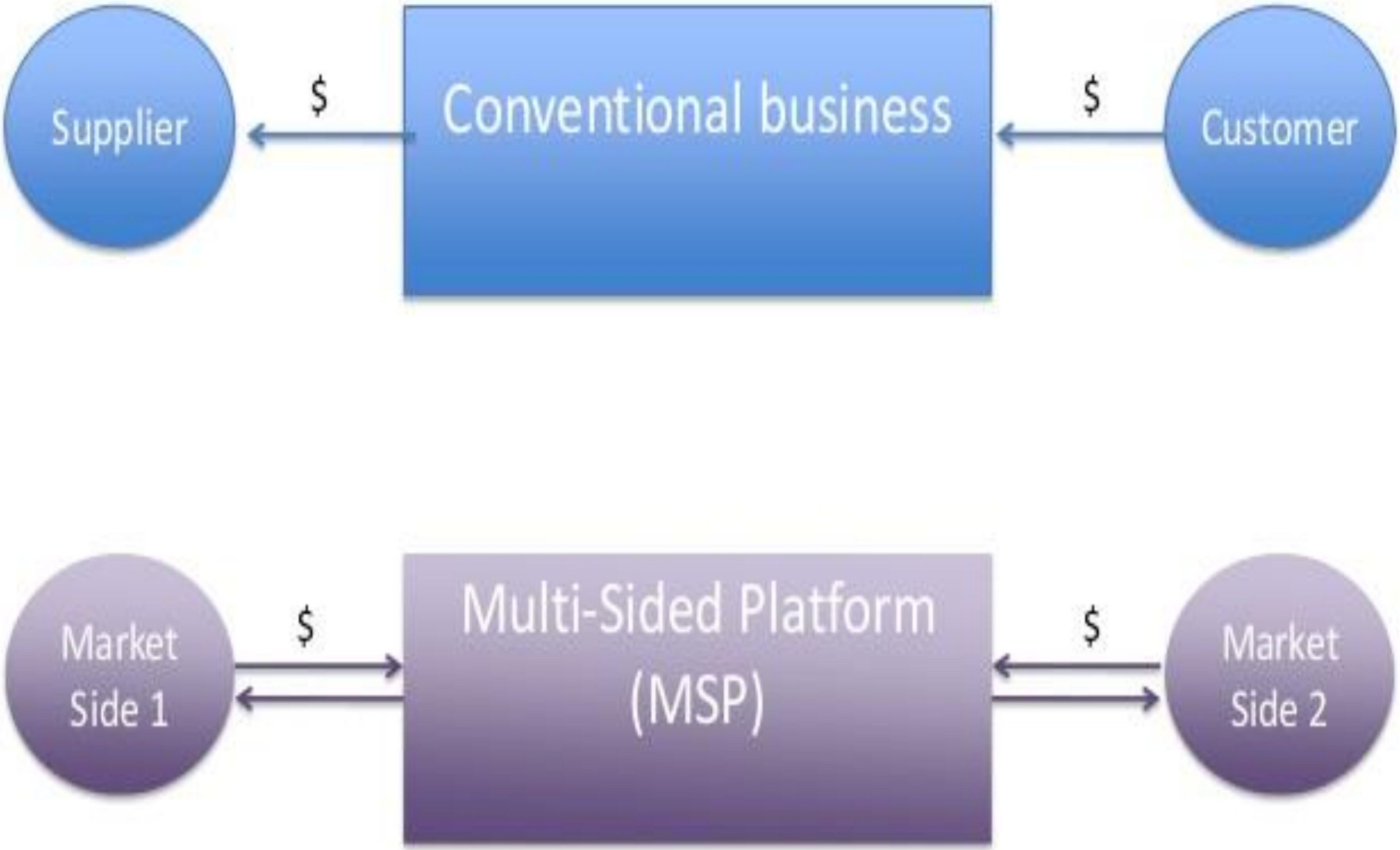
- ➢ (Multi-tiered) Monthly Subscriptions
- ❑ % from Sale of Business DNA Plans
- ◆ Revenue from Ads

D
Design (How?)
Business DNA Search Engine

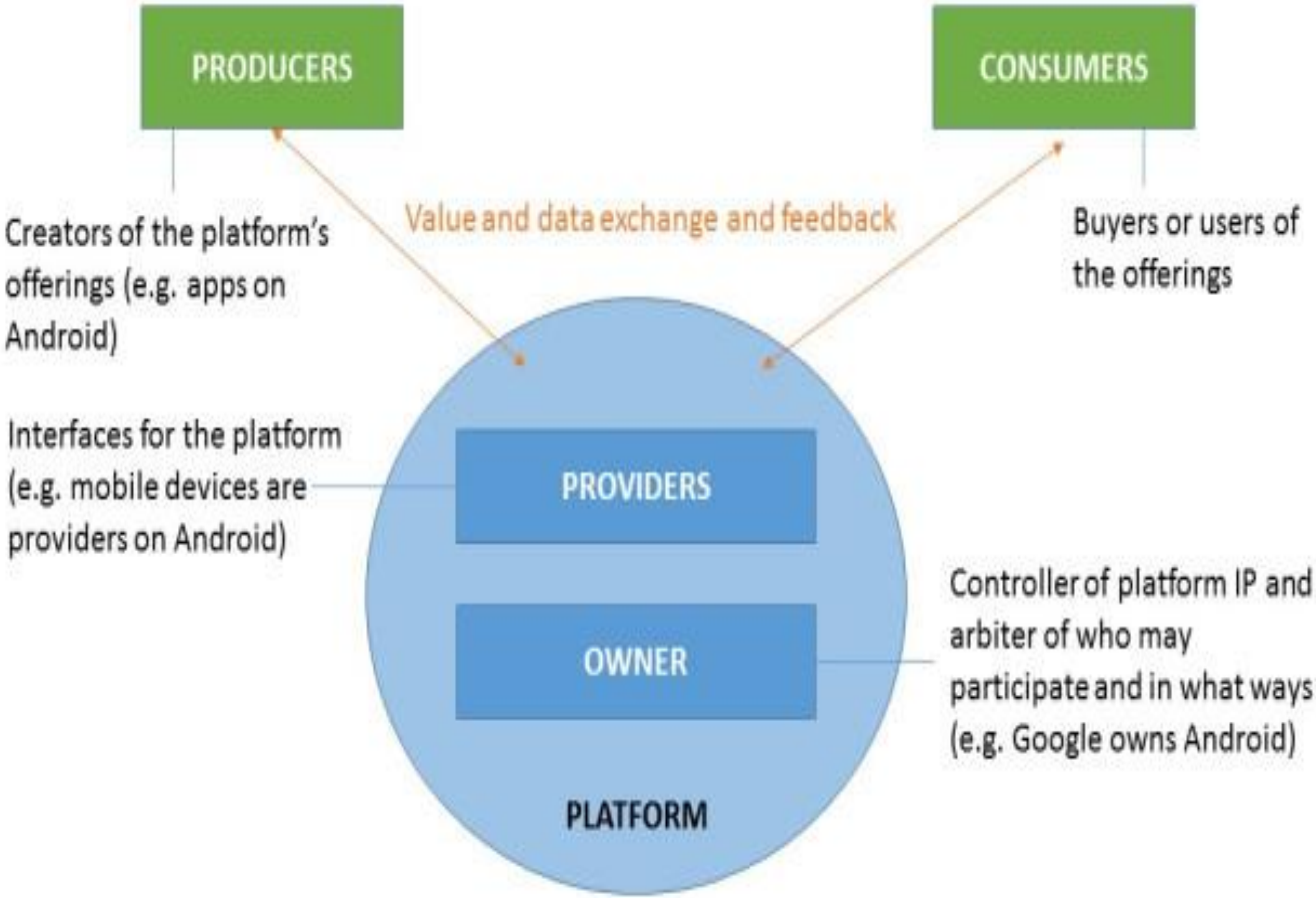
N
Needs (What?)
Business Model Agility

A
"Global Community Transformation"
Aspirations (Why?)

Differences

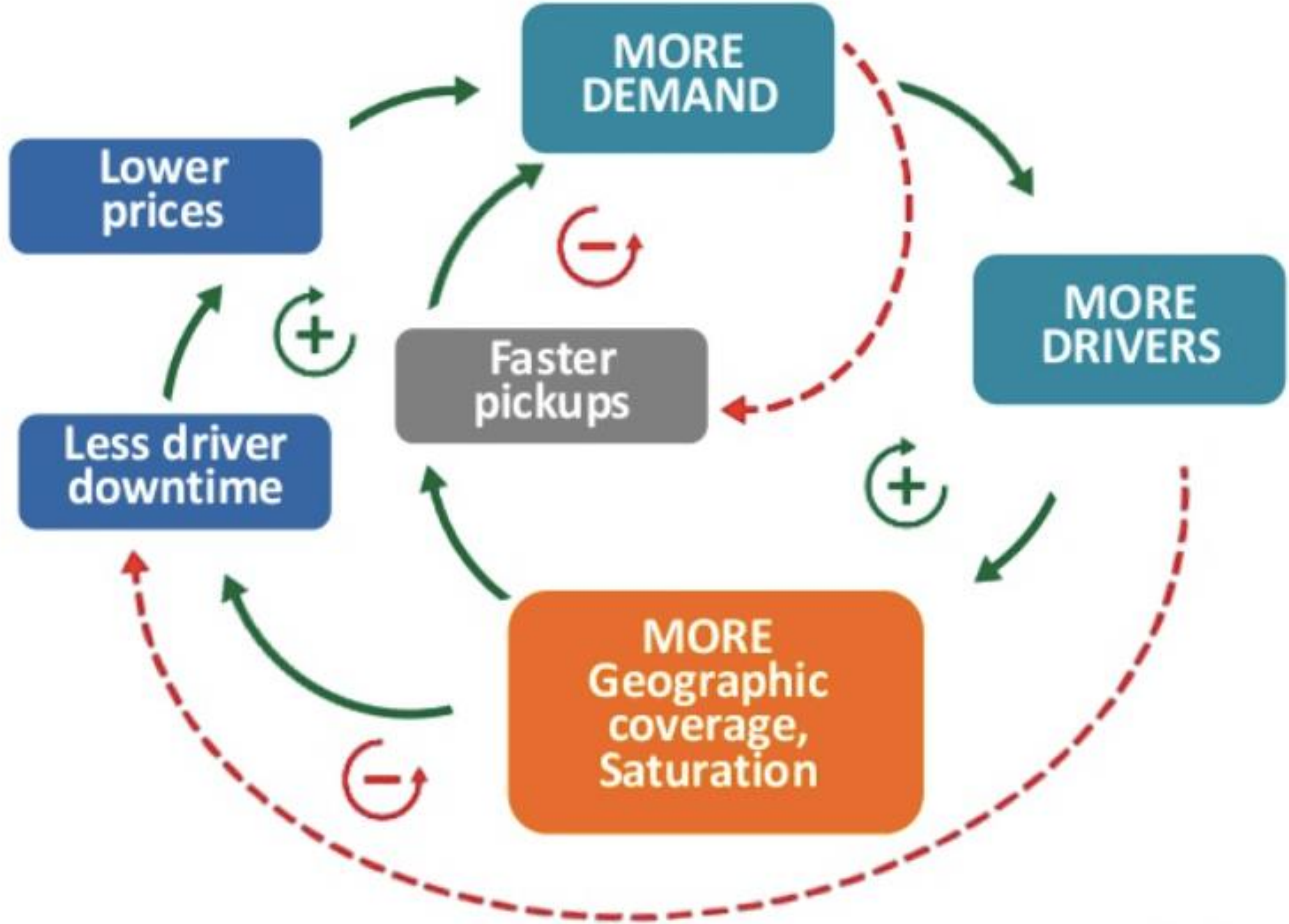


… connectivity needs … and …

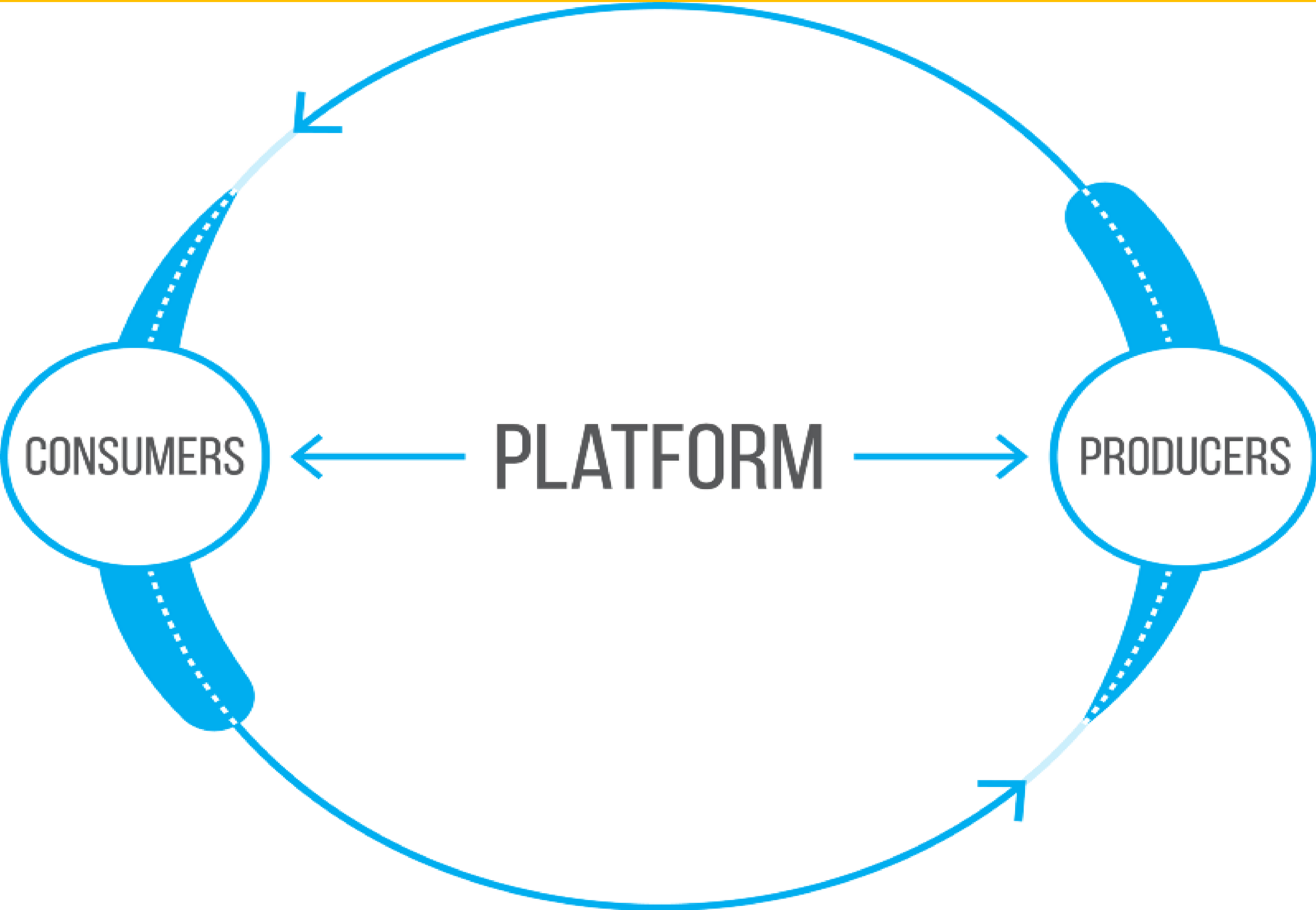


Van Alstyne, Parker & Choudary (2016)

… ever increasing … Demand …



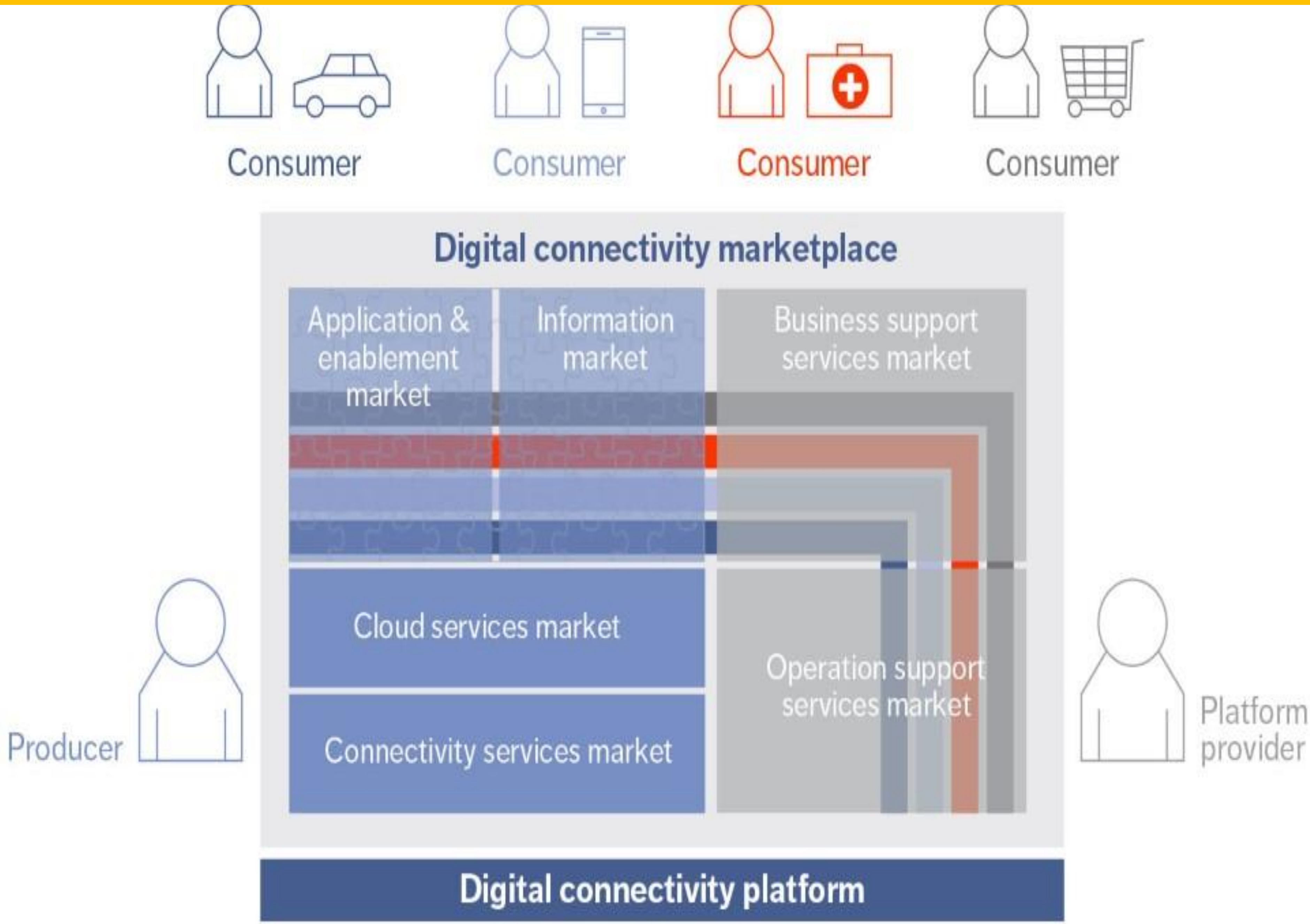
… creates the need for … PLATFORMS …



Platforms: What are we talking about?

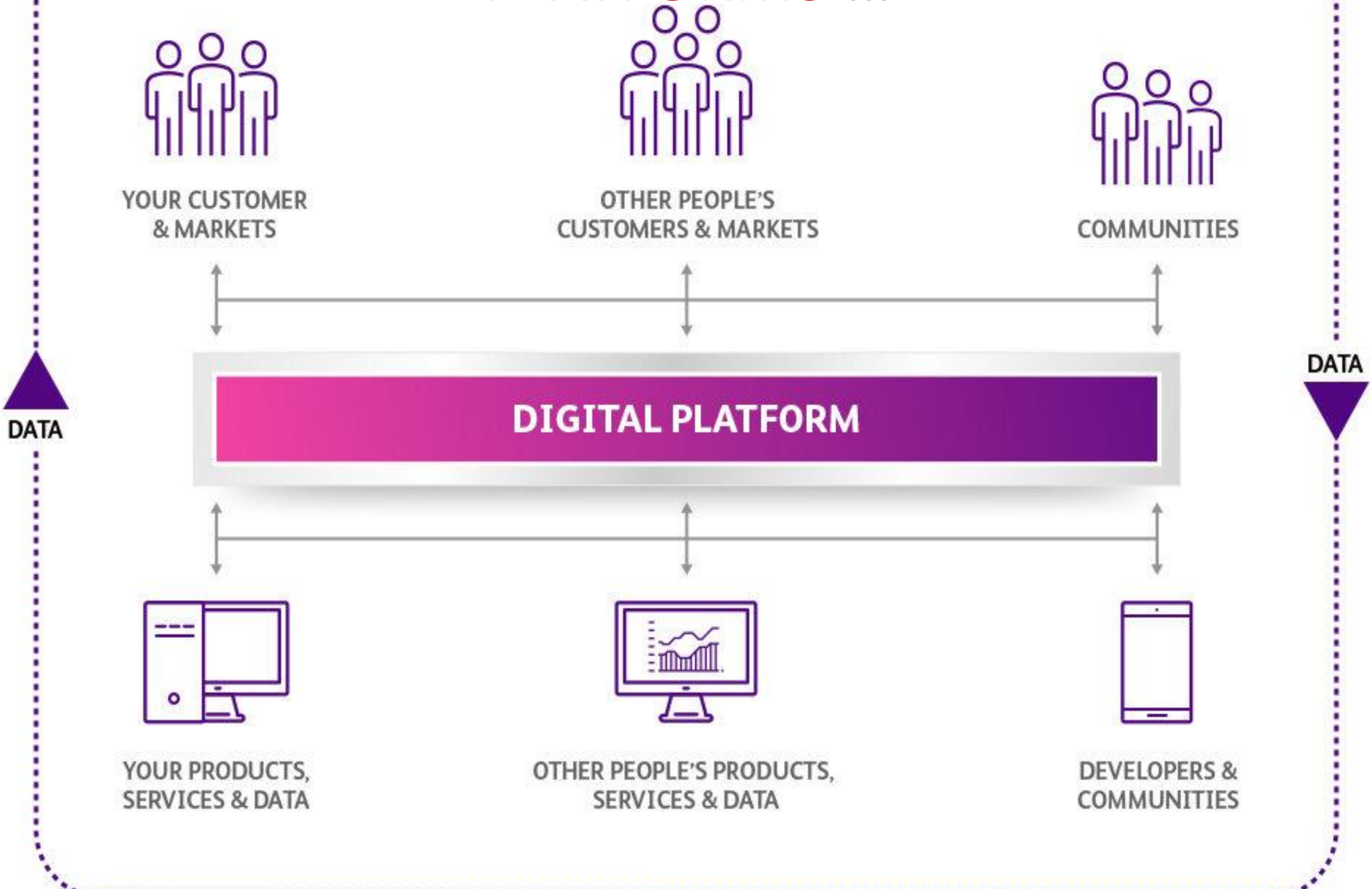
- Most value on the internet is created by multisided platforms: They create value by enabling interactions between two or more customer groups.
  - Apple/Android:
    People who buy a phone - developers of apps
  - Amazon Marketplace:
    People who search a product-companies selling products
  - AirBnB:
    People searching a place to stay - people who offer a place to stay

… create value … via … CONECTIVITY …



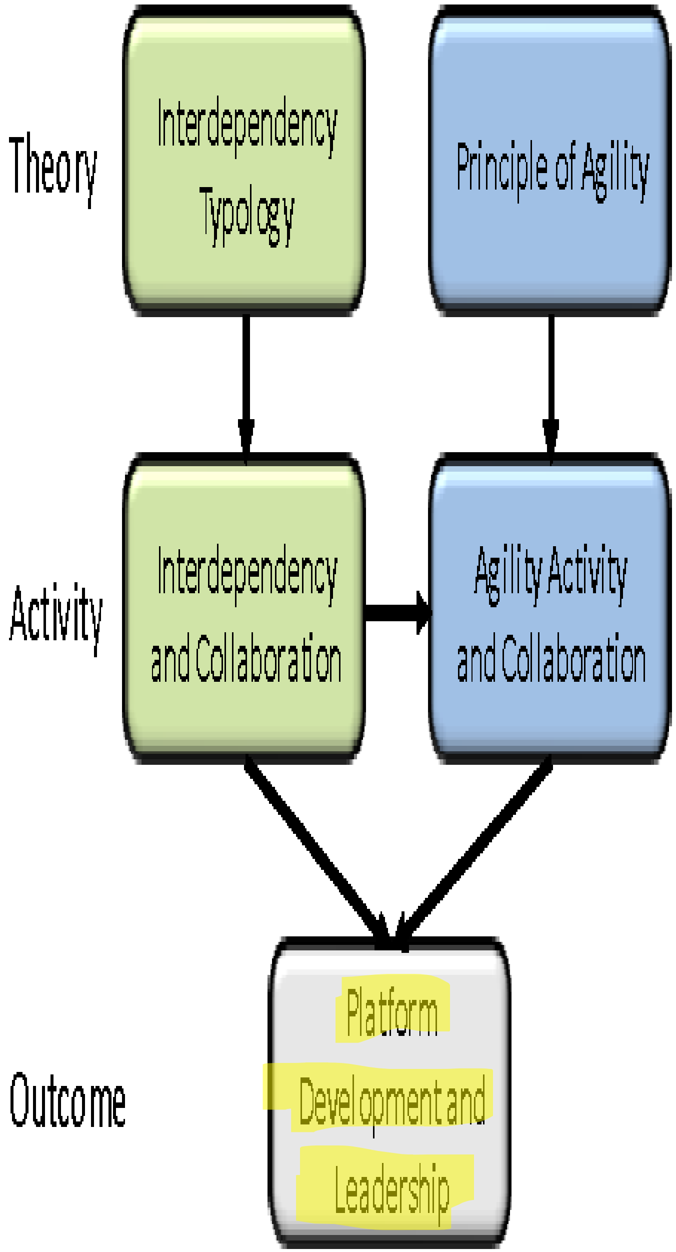
… esp. connectivity for … INFO & DATA …

PLATFORMS …

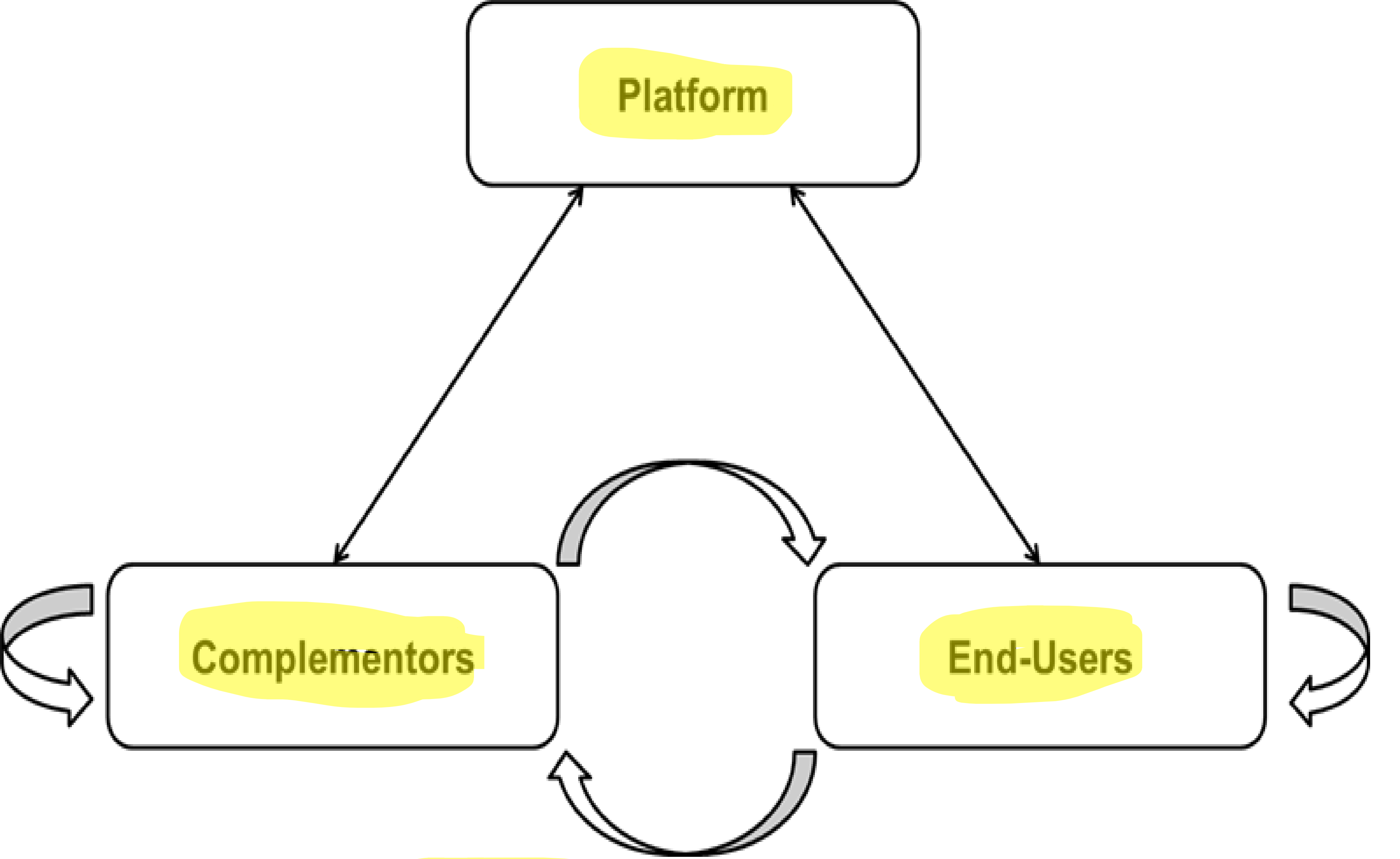


To understand PLATFORMS … let's answer …

1. What Is A Multi-Sided Platform?
2. When Do Multi-Sided Platforms Compete?
3. The Nature Of Competition
4. Search-Based Advertising
5. The Digital Music Business
6. The Catalyst Age



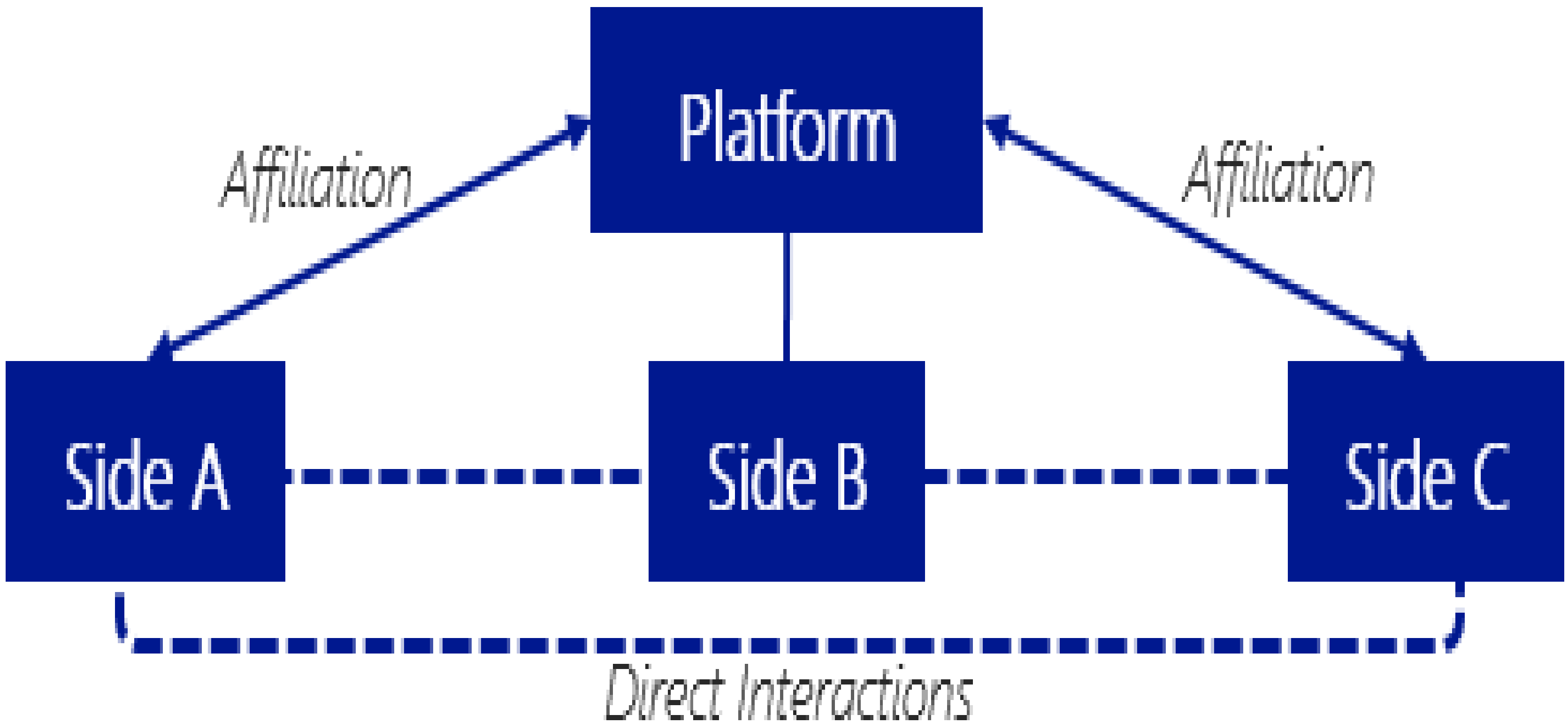
Conceptual Themes and Description
Interdependency Typology describes at least three types of collaborative arrangements, pooled, sequential and reciprocal (Thompson 1965), ranging from low to high (Gerdin 2005).
Principle of Agile Firm: (An agile firm has) high external electronic integration, high internal electronic intergration, and has high sensing and high responding capabilities (Nazir and Pinsonneault 2012). **Examples of Agile Activity** include customer collaboration, individuals and interactions, documentation and responding to change over (Sammarra et al. 2008; Williamson 2002)
Multi-Sided Platform entails intermediary operating a platform between two or more customer segments adds revenue stream and value proposition to initial model and access to both segments (Osterwalder and Pigneur 2009).

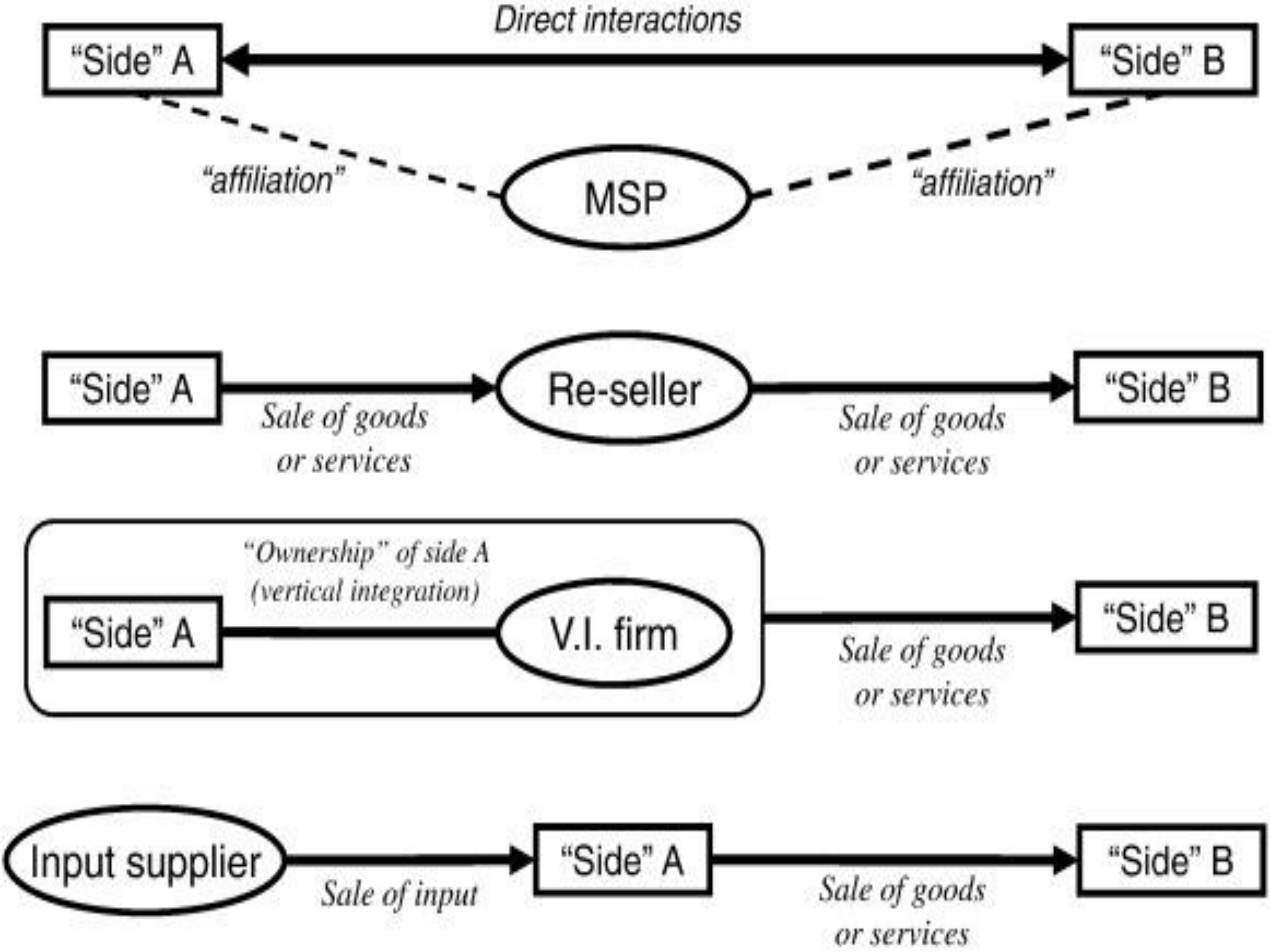


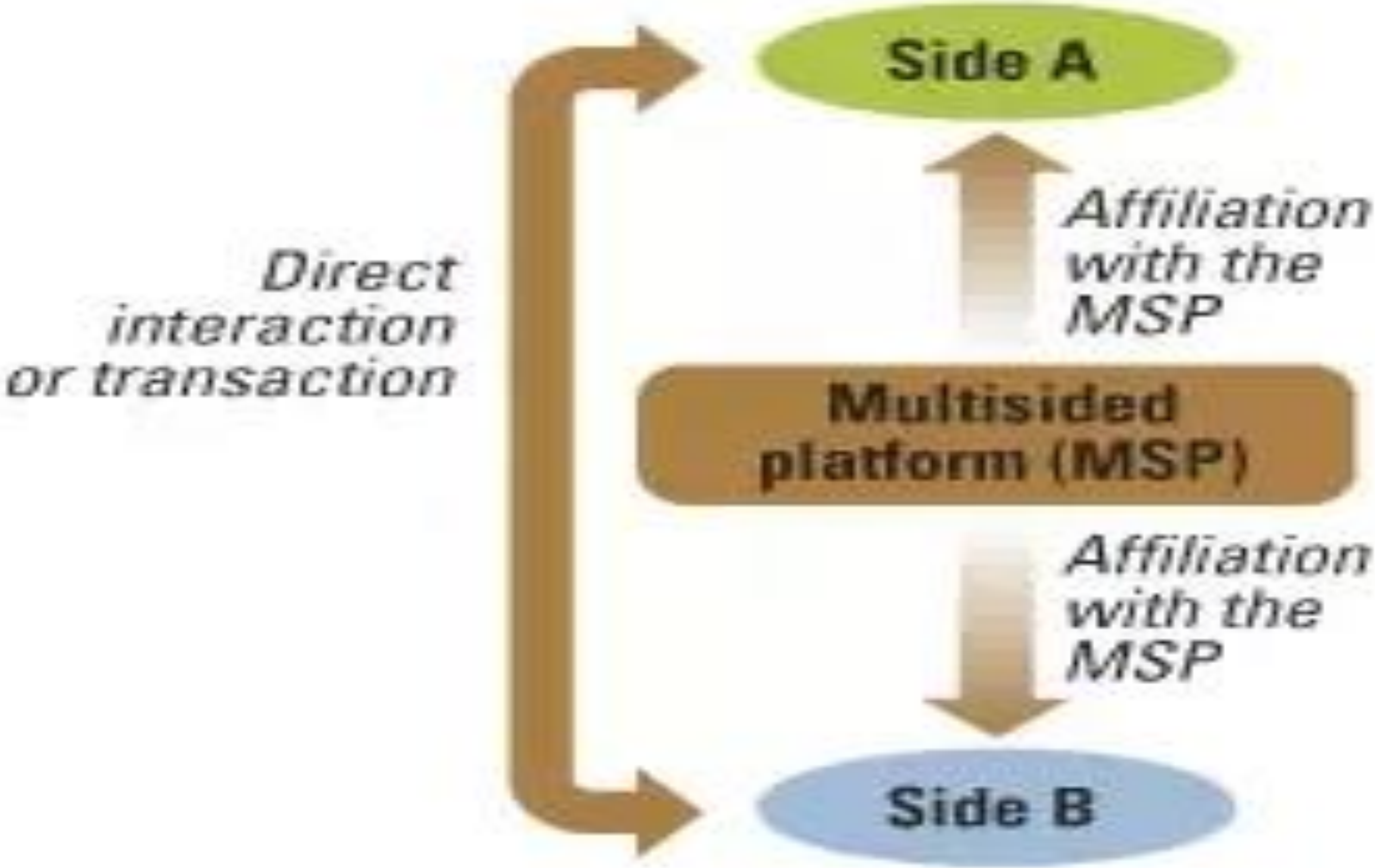
Stylized depiction of how multisided platforms function: Platform owners have to get two or more sides "on board". In the case of Apple, these sides are consumers and app developers ('complementors'). The presence of one side provides added incentive for other sides to join the platform.

What is a MSM?

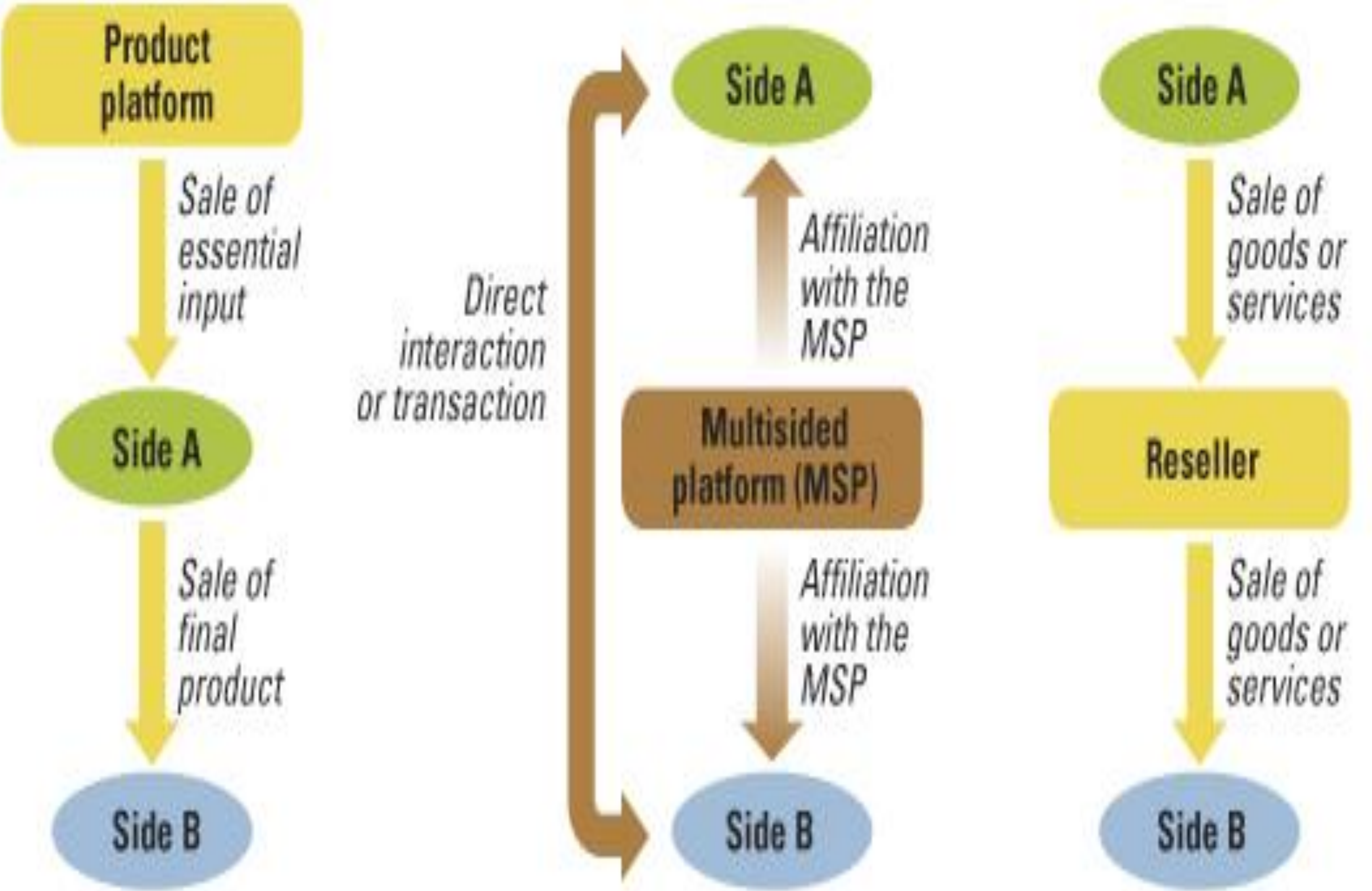
Software, application or service creating value by facilitating direct interactions between affiliates on multiple sides




Direct interactions
"Side" A
"Side" B
"affiliation"
MSP
"affiliation"
"Side" A
Re-seller
"Side" B
Sale of goods or services
Sale of goods or services
"Ownership" of side A (vertical integration)
"Side" A
V.I. firm
"Side" B
Sale of goods or services
Input supplier
"Side" A
"Side" B
Sale of input
Sale of goods or services

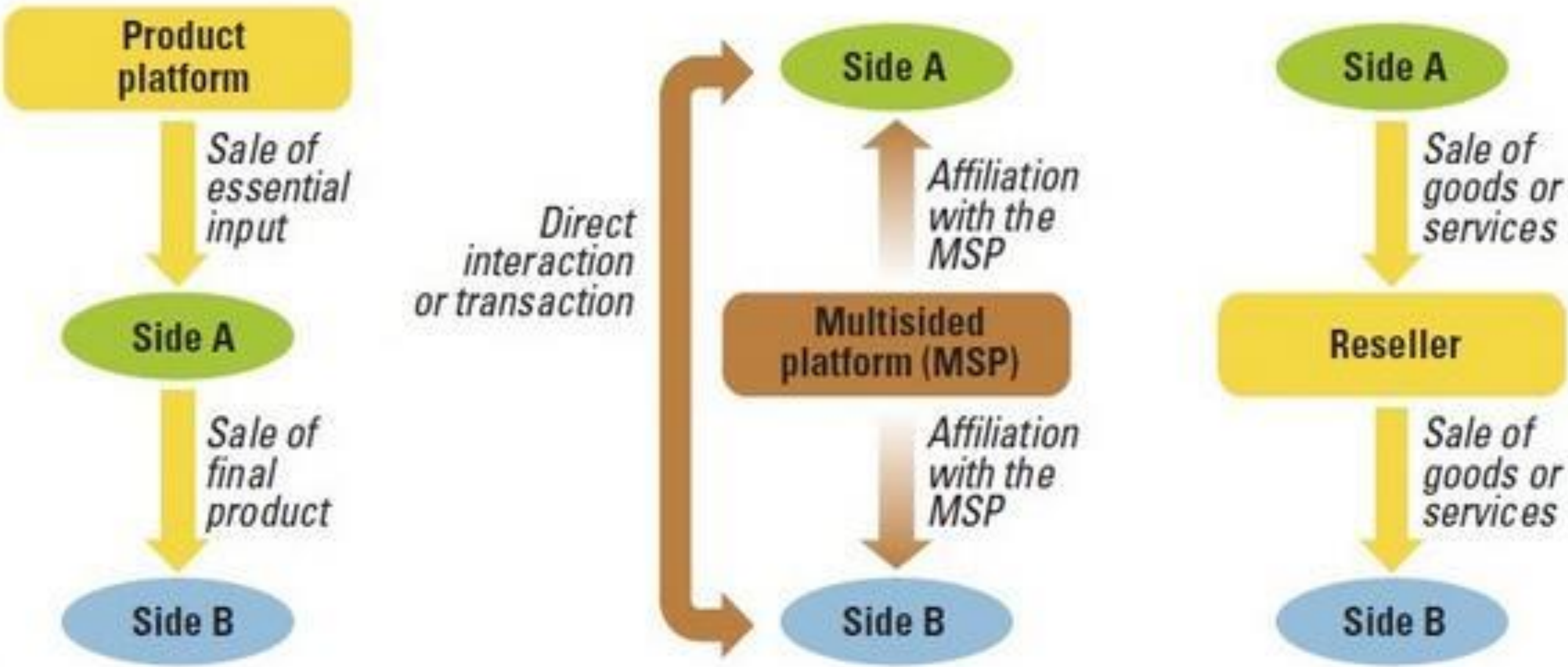

Side A
Affiliation with the MSP
Direct interaction or transaction
Multisided platform (MSP)
Affiliation with the MSP
Side B

… Product Platforms vs MSP …



HOW MULTISIDED PLATFORMS DIFFER FROM PRODUCT PLATFORMS AND RESELLERS

There are two key characteristics of a multisided platform: (1) each group of participants ("side") are customers of the MSP in some meaningful way, and (2) the MSP enables a direct interaction between the sides. Product platforms violate the first requirement: The ultimate customer is not a customer of the platform provider. Resellers violate the second requirement: There is no direct interaction between the sides.



… so Platforms … MULTI CONNECT …

COMMUNITY: People who contribute and receive value from accessing your platform

MARKETPLACE: An environment that provides ways for people to contribute and exchange value

INFRASTRUCTURE: Connected systems that make it easy for partners and users to plug into the platform, interact, and extract value

DATA: The flow of information that makes smart products and services possible

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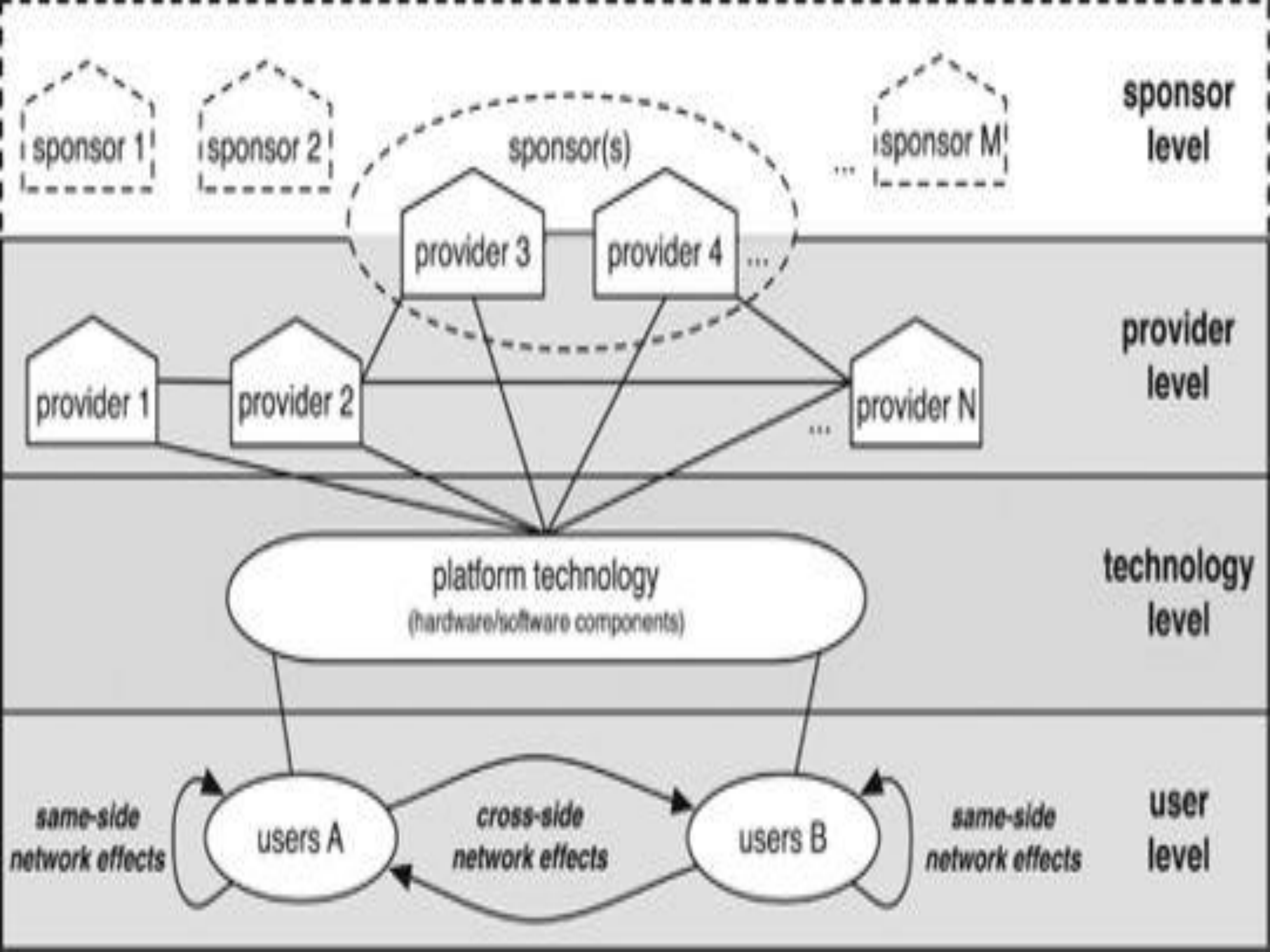
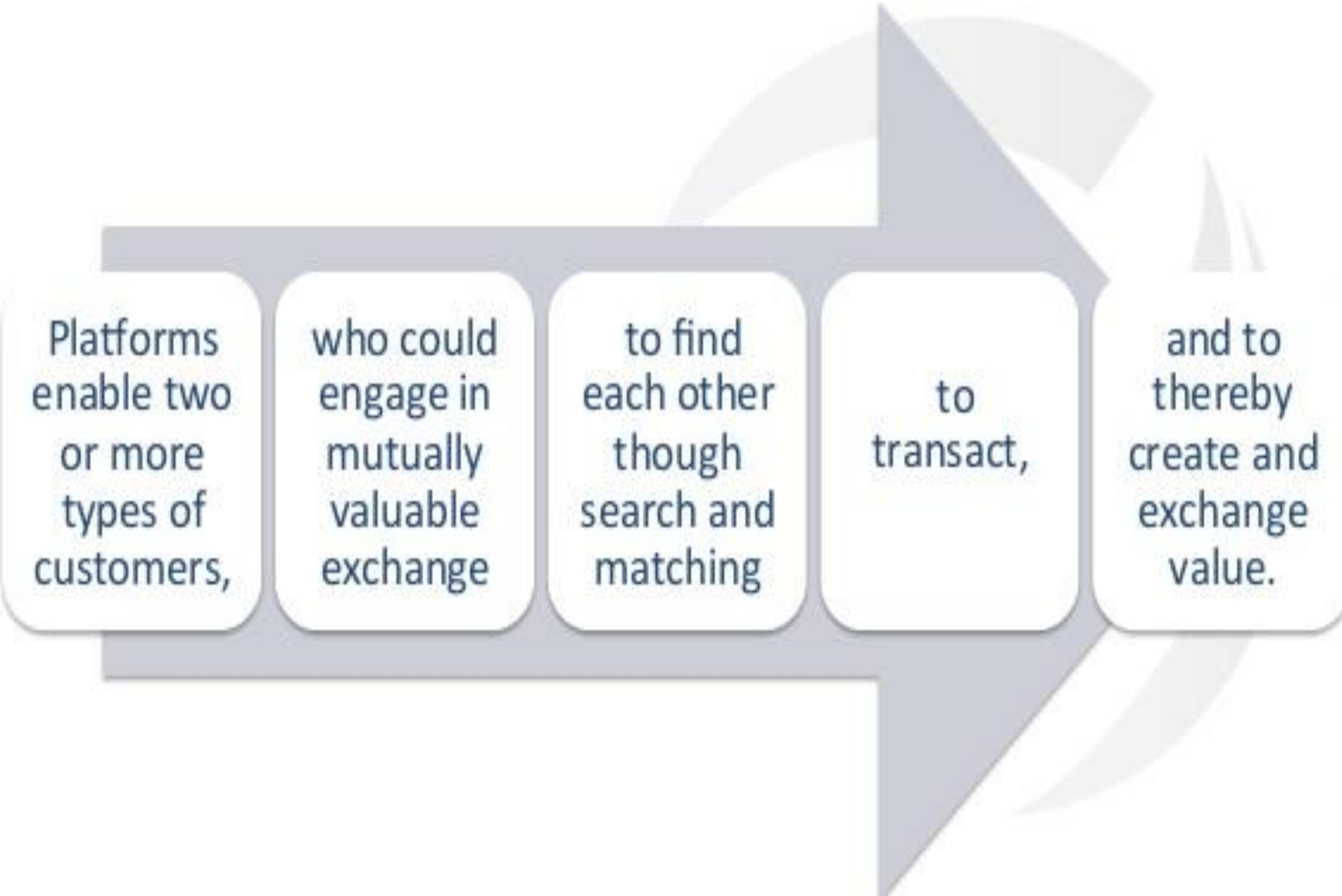
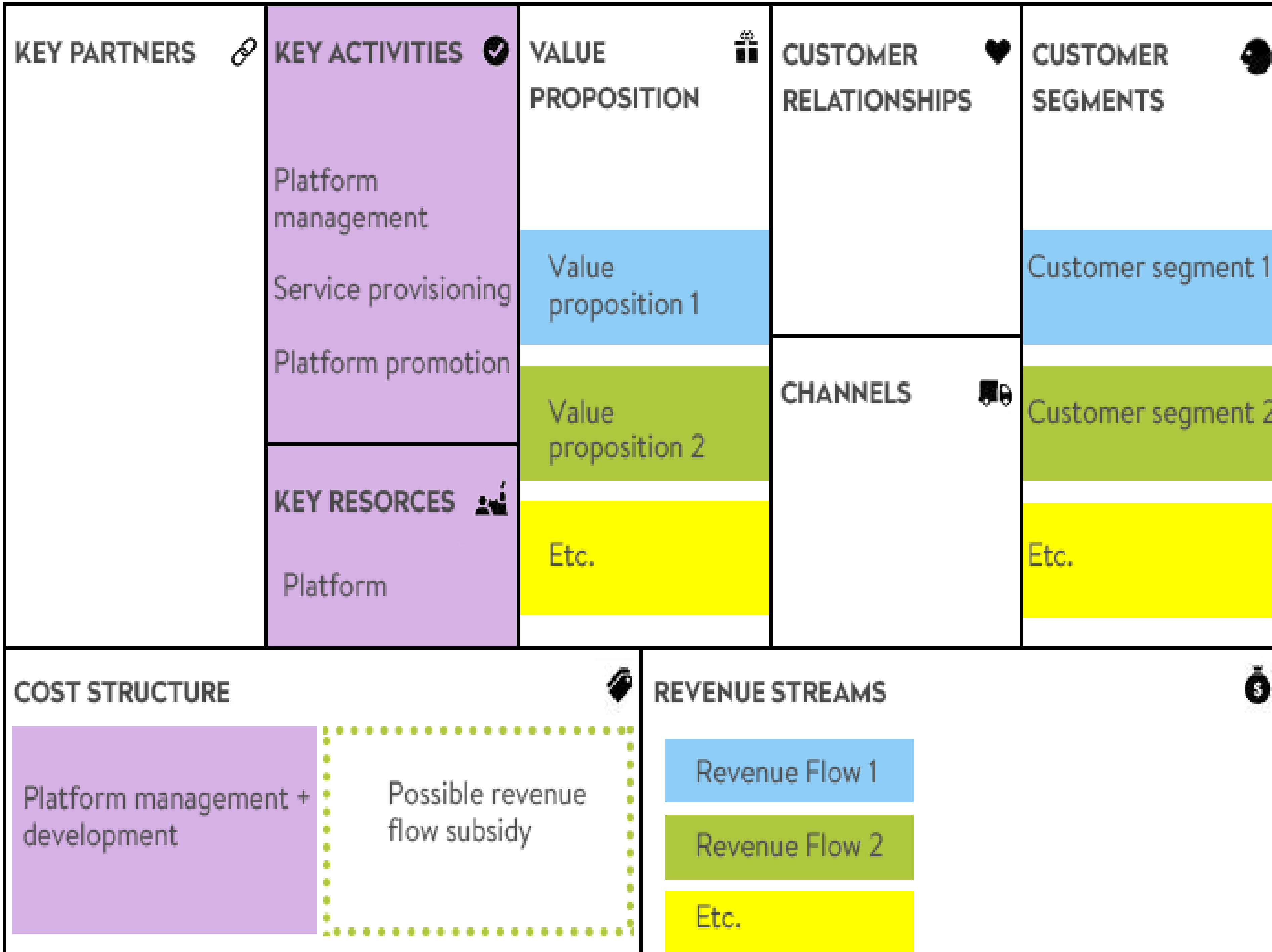
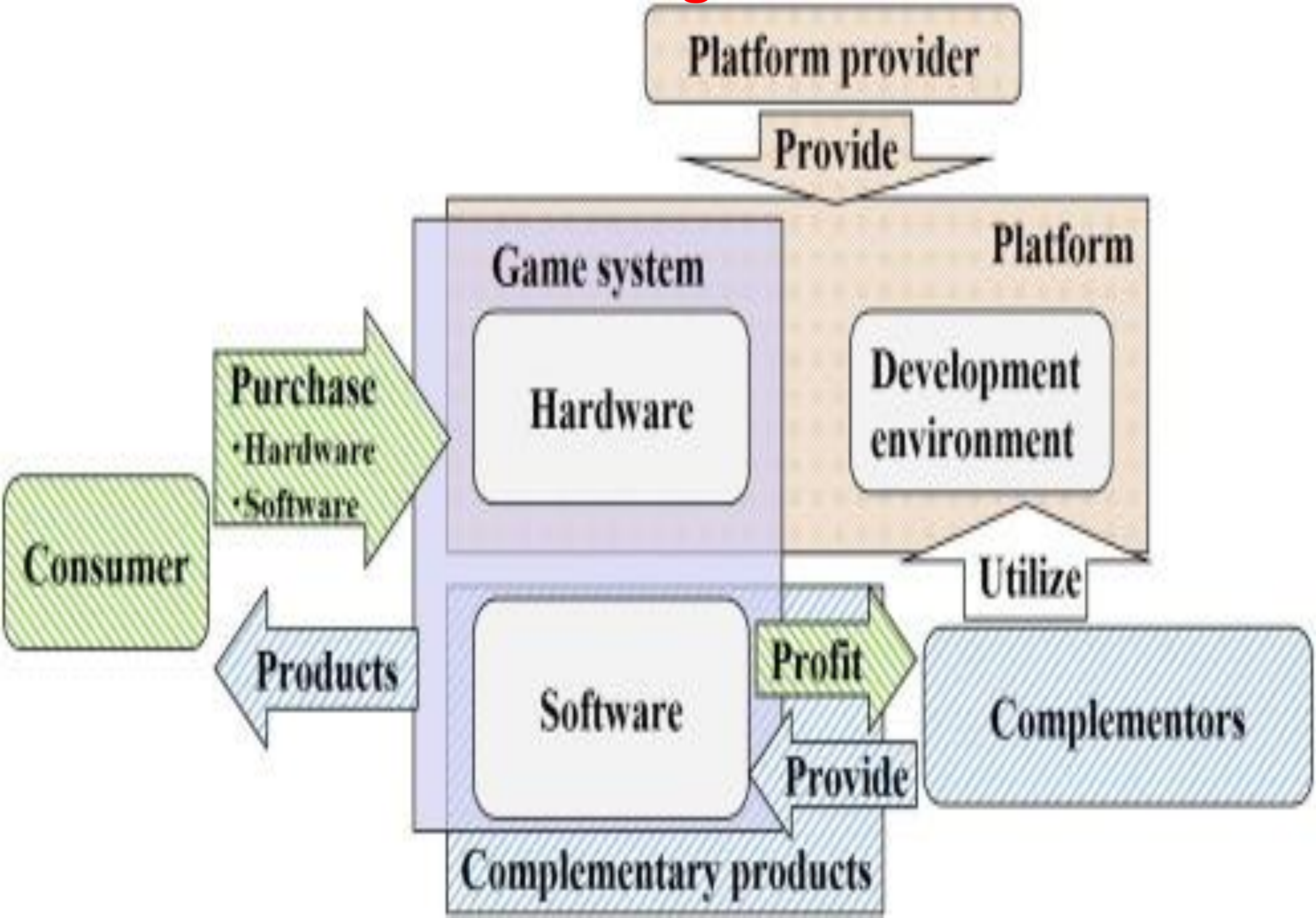

sponsor 1
sponsor 2
sponsor(s)
...
sponsor M
sponsor level
provider 3
provider 4
...
provider 1
provider 2
...
provider N
provider level
platform technology
(hardware/software components)
technology level
same-side network effects
users A
cross-side network effects
users B
same-side network effects
user level

… and add … VALUE …




KEY PARTNERS
KEY ACTIVITIES
Platform management
Service provisioning
Platform promotion
KEY RESORCES
Platform
VALUE PROPOSITION
Value proposition 1
Value proposition 2
Etc.
CUSTOMER RELATIONSHIPS
CHANNELS
CUSTOMER SEGMENTS
Customer segment 1
Customer segment 2
Etc.
COST STRUCTURE
Platform management + development
Possible revenue flow subsidy
REVENUE STREAMS
Revenue Flow 1
Revenue Flow 2
Etc.

Platform Design Model ...



Launching a Platform ::

The Platform Builder's Checklist

Amass a large user base

- Leverage existing user groups
- Use publicly available data as a substitute for one user group

Offer stand-alone value

- Add a service that is useful even if few others join the platform

Recruit marquee users

- Pay them to join
- Buy the marquee brand

Reduce users' risks

- Offer pay-as-you-go pricing
- Subsidize early users

Ensure compatibility with legacy systems

- Offer just enough compatibility to attract new users
- Anticipate resistance from legacy systems

SOURCE BENJAMIN EDELMAN
FROM "HOW TO LAUNCH YOUR DIGITAL PLATFORM," APRIL 2015

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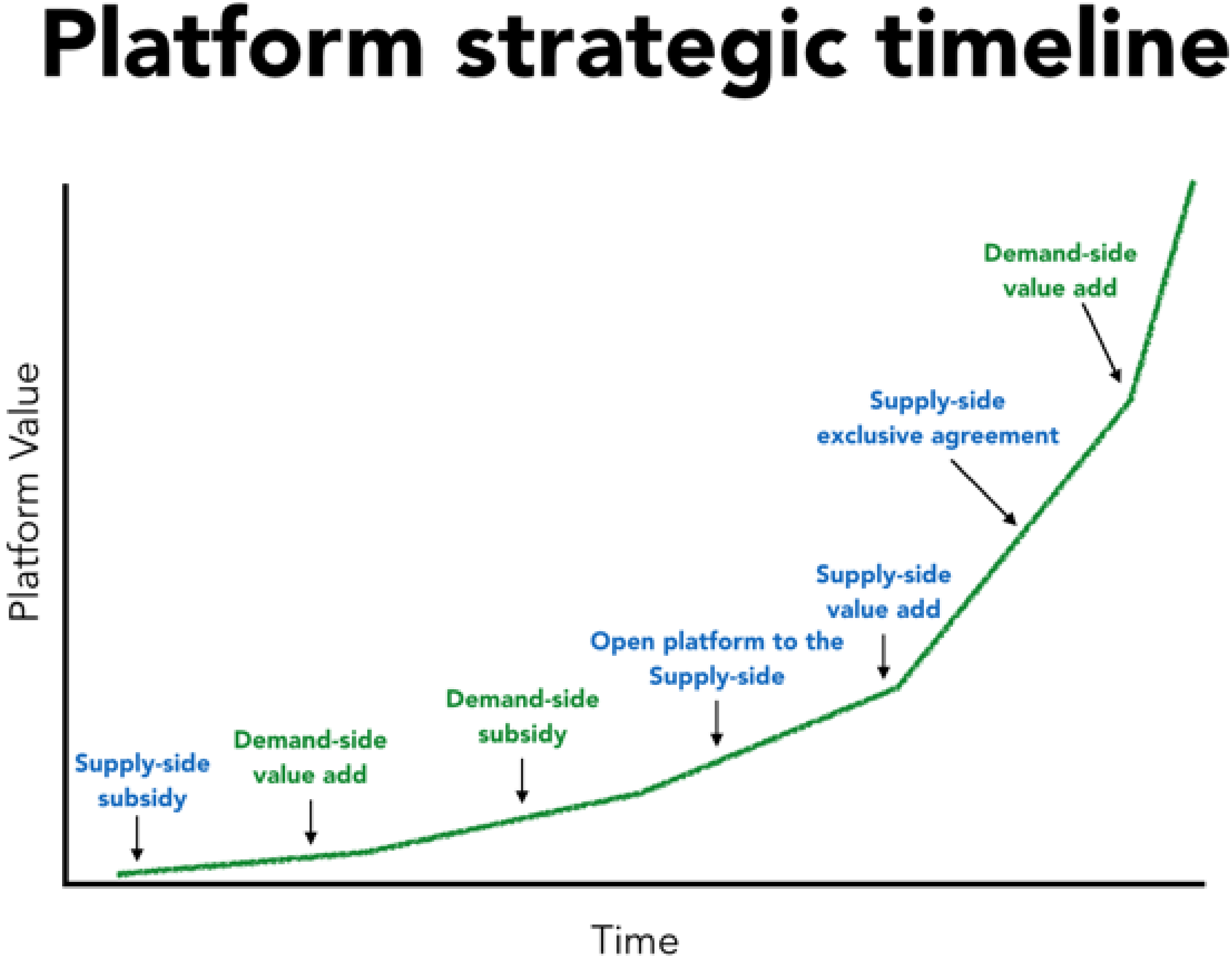
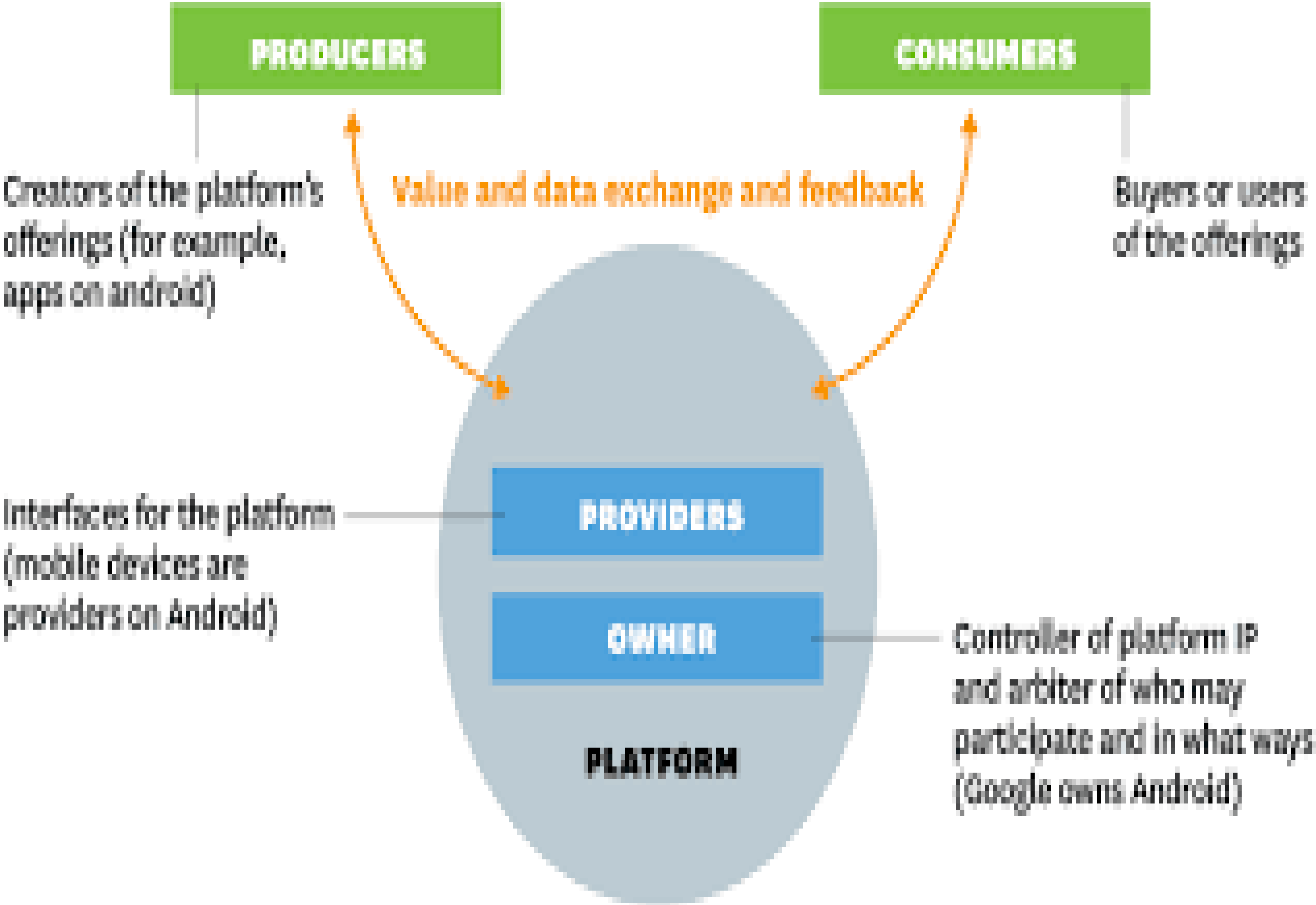
Platform Life Cycle & Value



Platform Characteristics & Offerings …

Platform characteristics:
- Multi-sided
- Cloud and data-based

Platform Offerings
- Data storage
- API library
- Data analytics
- IP indexation


PRODUCERS
CONSUMERS
Creators of the platform's offerings (for example, apps on android)
Value and data exchange and feedback
Buyers or users of the offerings
Interfaces for the platform (mobile devices are providers on Android)
PROVIDERS
OWNER
Controller of platform IP and arbiter of who may participate and in what ways (Google owns Android)
PLATFORM

Empirically …

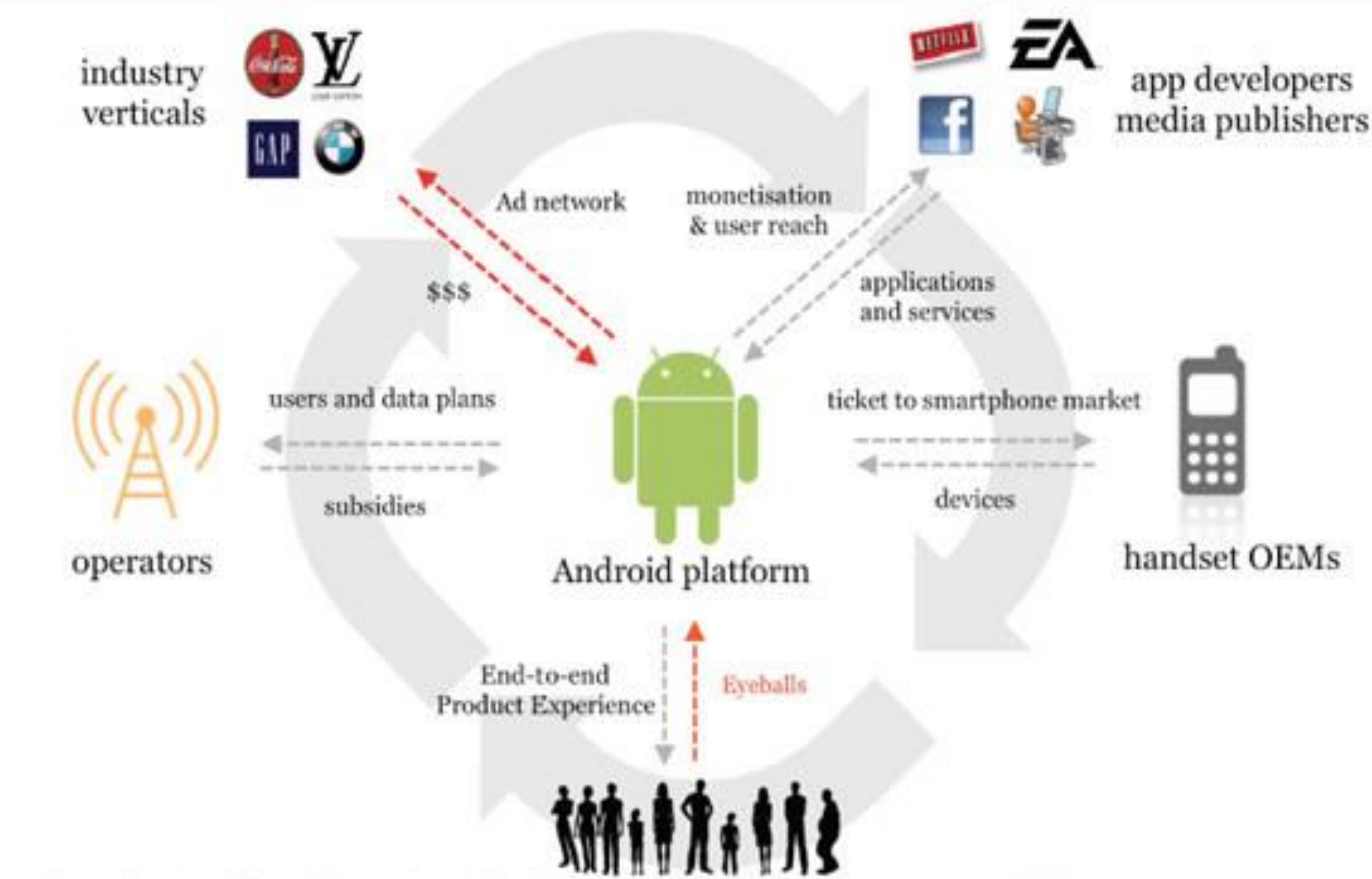
- More dominant firms in sectors as multi-sided platforms form and grow
- More dominant firms as high-tech, multi-sided platforms displace low-tech
- More consolidations as multi-sided platforms seek demand and cost-scale economies made possible by technology

Platform Examples …

Notable examples of MSPs and the participants they join contain eBay (buyers and sellers), Airbnb (living owners and renters), the Uber program (professional drivers and users), Facebook (users, advertisers, third party game or content programmers and associate third party websites), and Ticketmaster (event places and consumers). As these

Android Platform

The 5-sided network forming around the Android platform, illustrating network effects



Source: Developer Economics 2011 | www.DeveloperEconomics.com | June 2011
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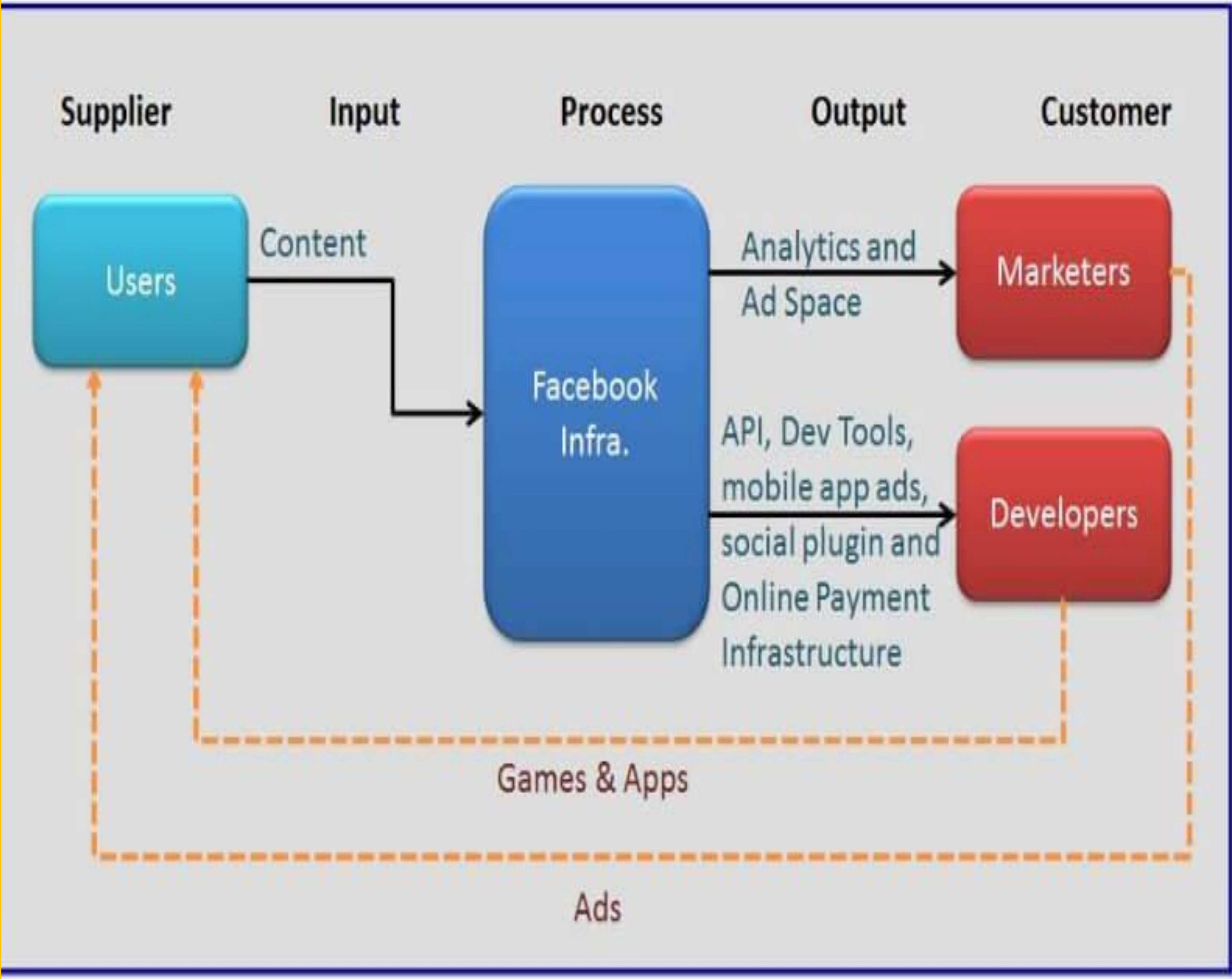
Facebook Platform



Business Model 101: Multi-Sided Customer Segments

HR Managers

Professionals

A Multi-Sided Platform serves different target customers. Yet they are highly dependent on each other.

Therefore, it makes sense to serve both sides. In fact, that is how the overall platform gains value.

Thus, LinkedIn offers Hiring services to HR managers. Professionals, instead, can join the learning and development platform.

That is how hiring services become more valuable for HR managers because they can find more qualified candidates.

Also, professionals will find more value with subscription plans, since they will find a job more easily.

LinkedIn Hiring

Learning & Development

by FourWeekMBA.com

Platform Companies Are Becoming More Powerful — but What Exactly Do They Want?

On Money
By JOHN HERRMAN MARCH 21, 2017

Illustration by Andrew Rae

On Money

How economics explains the news.

The Major Blind Spots in Macroeconomics FEB 7

Should We Trash Cash?

What the West Can Learn From Japan About the Cultural Value of Work

How Economic Gobbledygook Divides Us

Why Are Politicians So Obsessed With Manufacturing?

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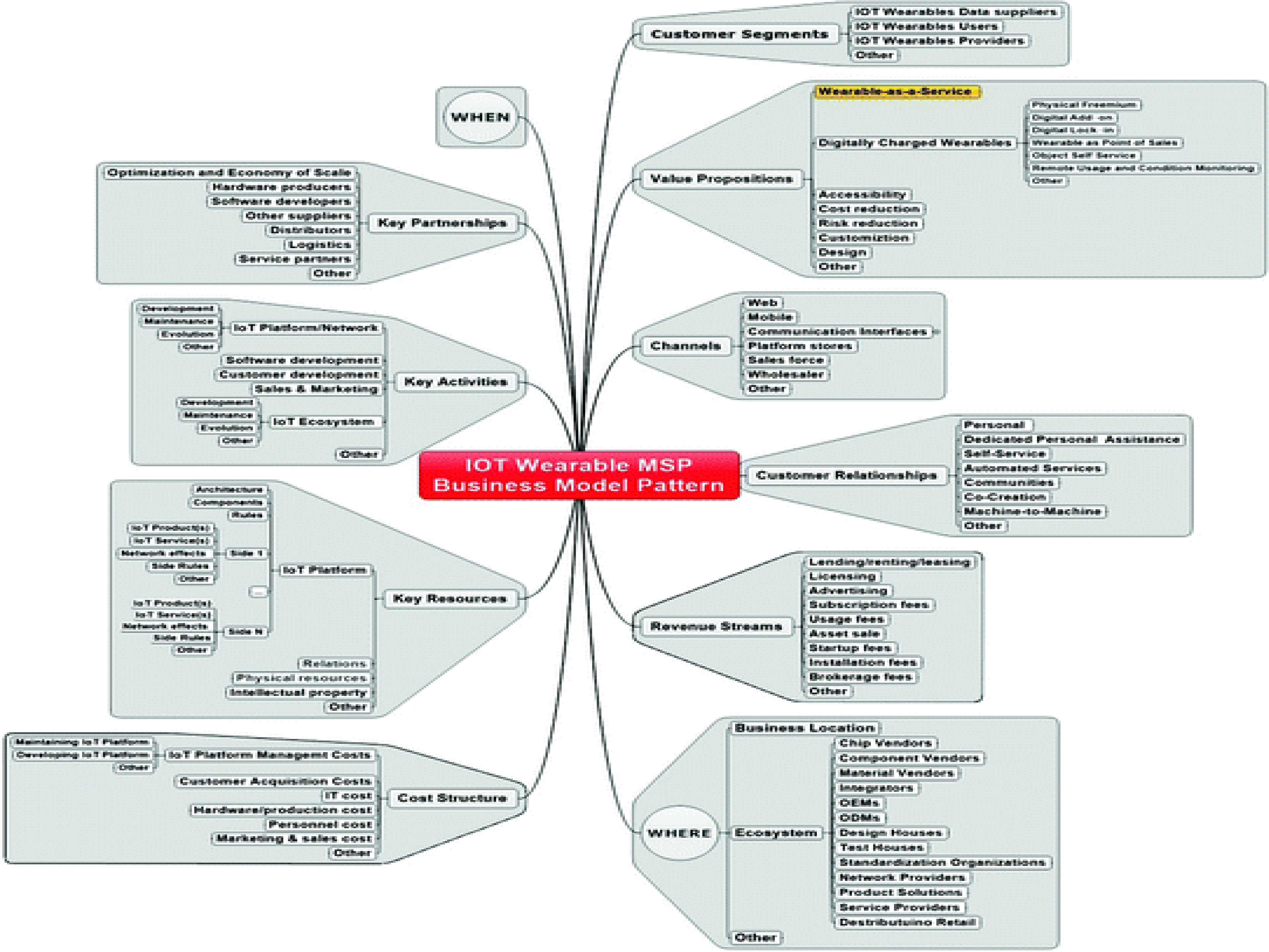
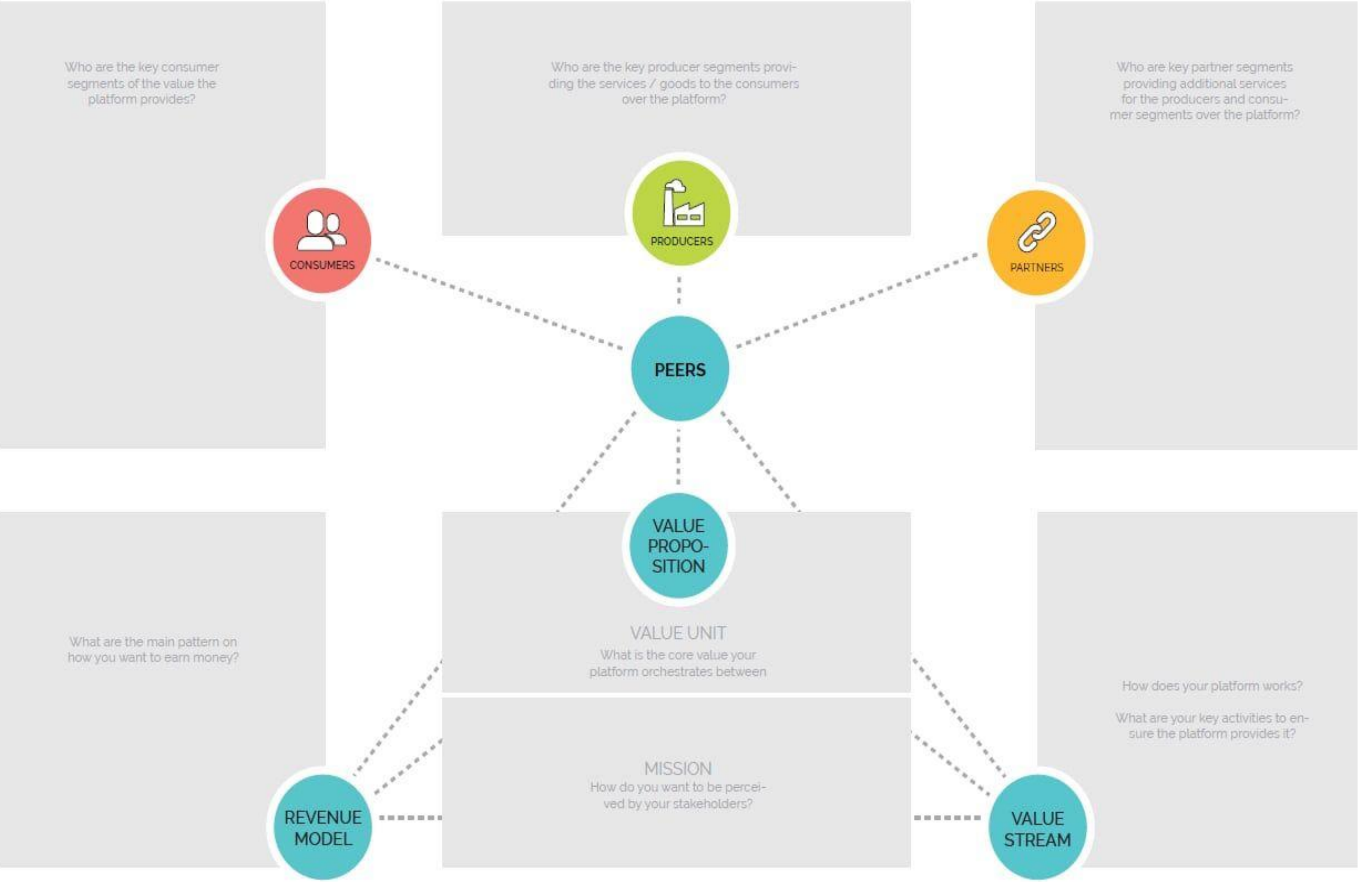
During a February ride in San Francisco, Travis Kalanick, the chief executive of Uber, was recorded arguing with and eventually berating an Uber driver from the


IOT Wearable MSP
Business Model Pattern
Customer Segments
IOT Wearables Data suppliers
IOT Wearables Users
IOT Wearables Providers
Other
Value Propositions
Wearable-as-a-Service
Digitally Charged Wearables
Physical Freemium
Digital Add -on
Digital Lock -in
Wearable as Point of Sales
Object Self Service
Remote Usage and Condition Monitoring
Other
Accessibility
Cost reduction
Risk reduction
Customiztion
Design
Other
Channels
Web
Mobile
Communication Interfaces
Platform stores
Sales force
Wholesaler
Other
Customer Relationships
Personal
Dedicated Personal Assistance
Self-Service
Automated Services
Communities
Co-Creation
Machine-to-Machine
Other
Revenue Streams
Lending/renting/leasing
Licensing
Advertising
Subscription fees
Usage fees
Asset sale
Startup fees
Installation fees
Brokerage fees
Other
WHERE
Business Location
Ecosystem
Chip Vendors
Component Vendors
Material Vendors
Integrators
OEMs
ODMs
Design Houses
Test Houses
Standardization Organizations
Network Providers
Product Solutions
Service Providers
Destributuino Retail
Other
WHEN
Key Partnerships
Optimization and Economy of Scale
Hardware producers
Software developers
Other suppliers
Distributors
Logistics
Service partners
Other
Key Activities
IoT Platform/Network
Development
Maintenance
Evolution
Other
Software development
Customer development
Sales & Marketing
IoT Ecosystem
Development
Maintenance
Evolution
Other
Other
Key Resources
IoT Platform
Architecture
Components
Rules
Side 1
IoT Product(s)
IoT Service(s)
Network effects
Side Rules
Other
...
Side N
IoT Product(s)
IoT Service(s)
Network effects
Side Rules
Other
Relations
Physical resources
Intellectual property
Other
Cost Structure
IoT Platform Managemt Costs
Maintaining IoT Platform
Developing IoT Platform
Other
Customer Acquisition Costs
IT cost
Hardware/production cost
Personnel cost
Marketing & sales cost
Other



PLATFORM IDEA CANVAS v1.5

Part of the Platform Innovation Kit - the toolset for the platform generation

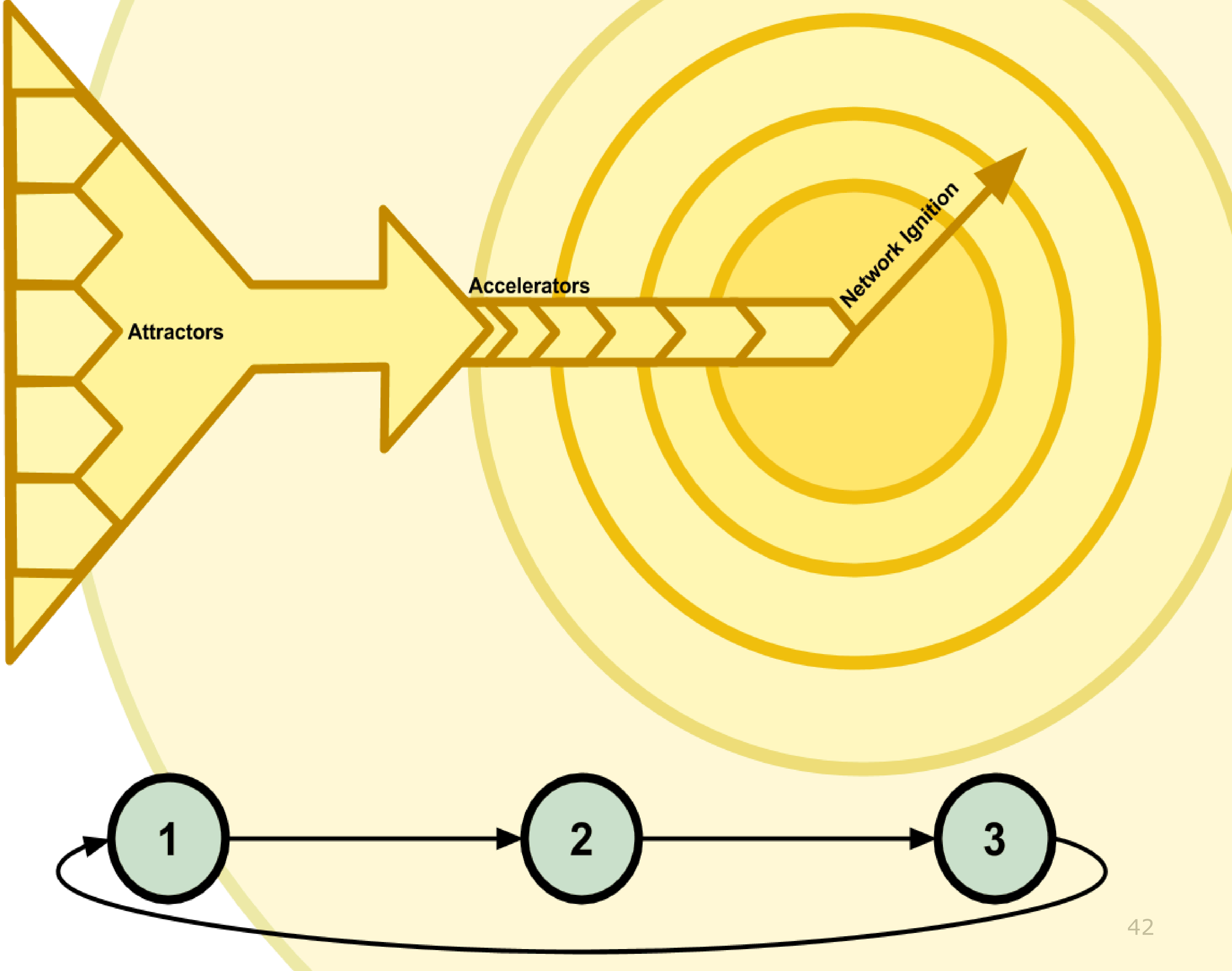
Download at www.platforminnovationkit.com

Inspired by „The Magic Triangle“ of Prof. Gassmann

Business Platform

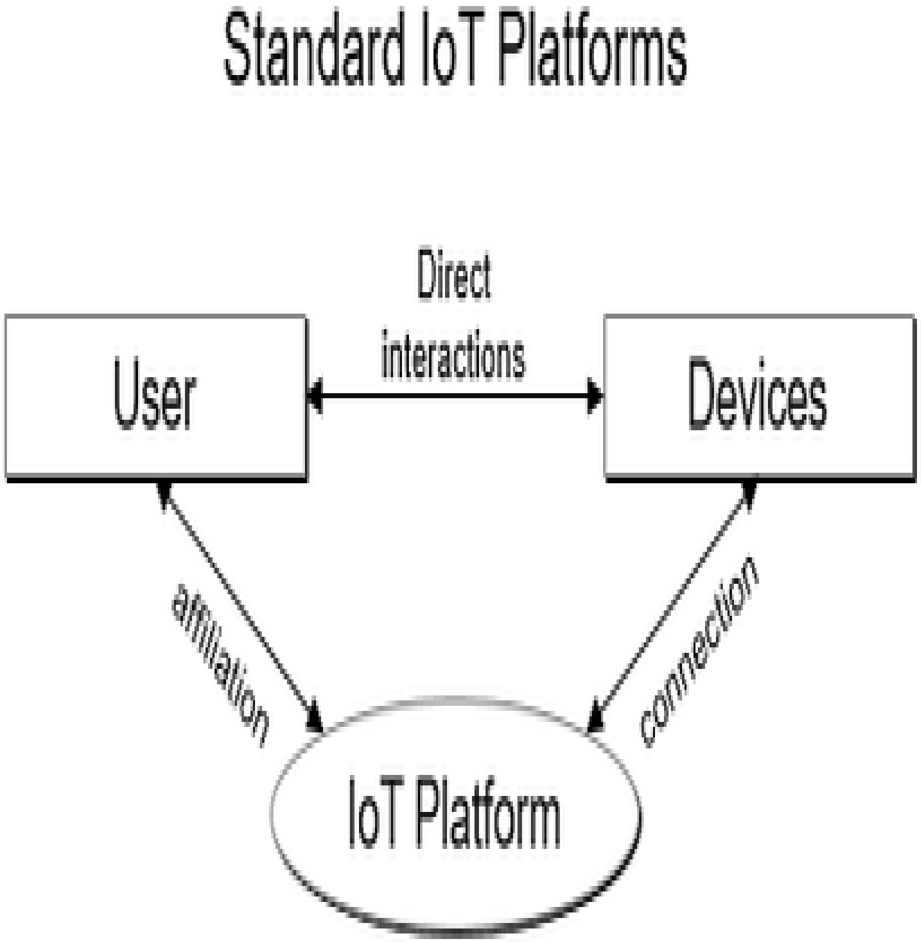
Created by

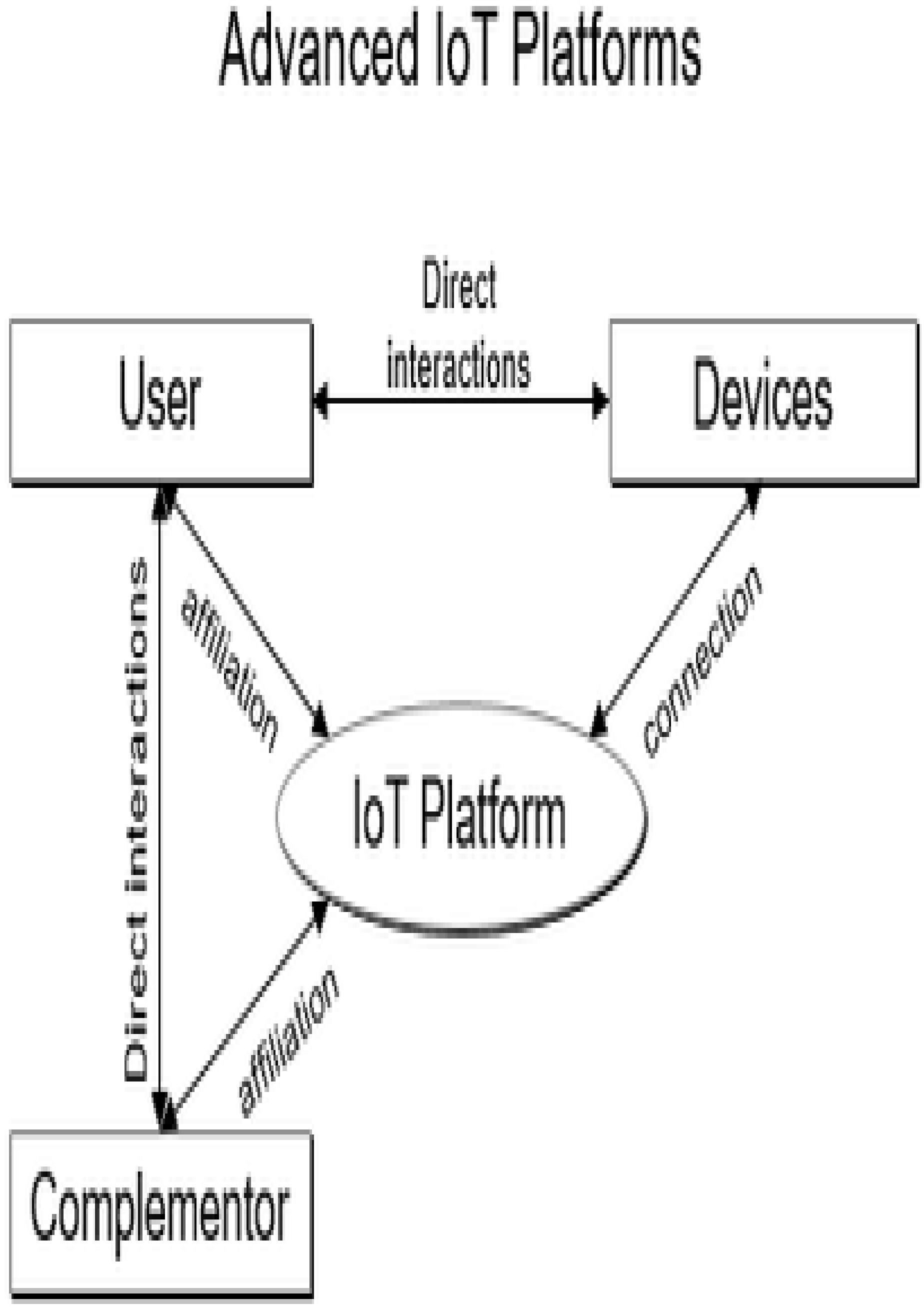
Version / Date


Attractors
Accelerators
Network Ignition
1
2
3

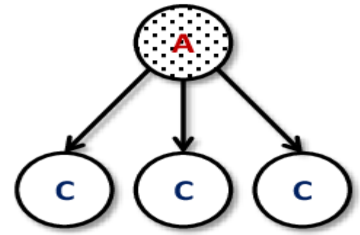
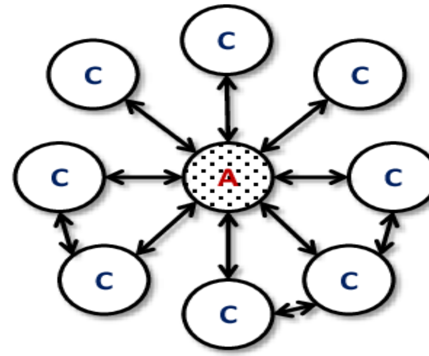
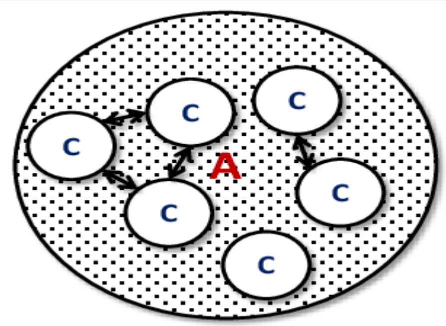
2) Types of Platforms

Standard vs Advanced Platforms

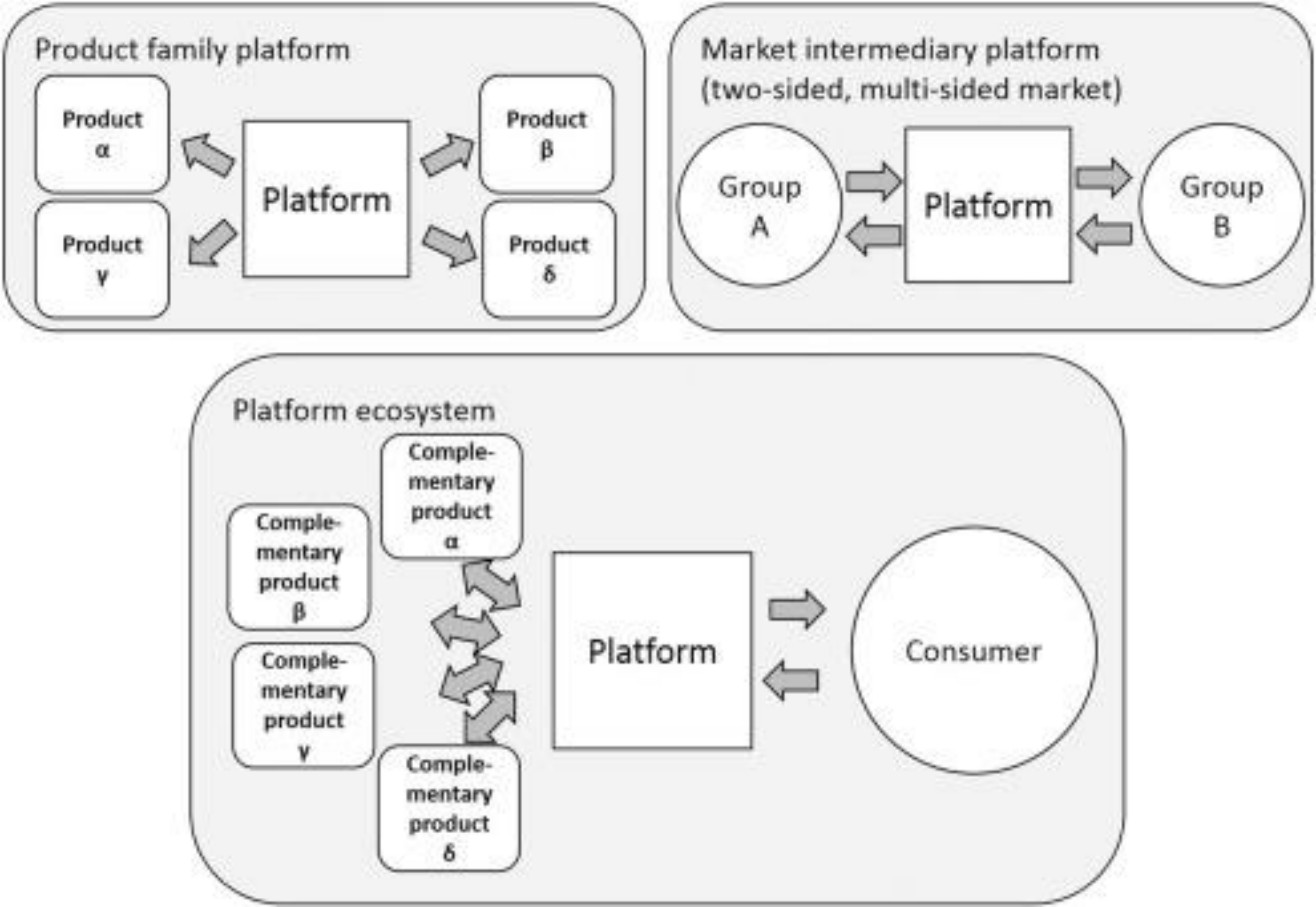




De facto – Open – Community Platforms

Stage	IT affordance		Actualization of IT affordance			
	Seller side	Buyer side	DMSP goal	IT-enabled competitive action		
				Actions		Illustration of outcomes
1	Lower barriers of entry	Knowledge and competence	Encourage collectivism and trust	Provide free and inclusive access to resources and services	Creates → Influences ←	 De facto platform
2	Market synergies	Access to new products and services	Nurture coopetition	Build interdependencies and expand IT tools	Leads to → Influences ←	 Open platform
3	Joint ownership of innovations	Re-invention of products and services	Develop autonomy	Channel and pool communal constituent capabilities	Develops → Influences ←	 Community platform

Product - Market - Ecosystem Platforms



more … Platform types …

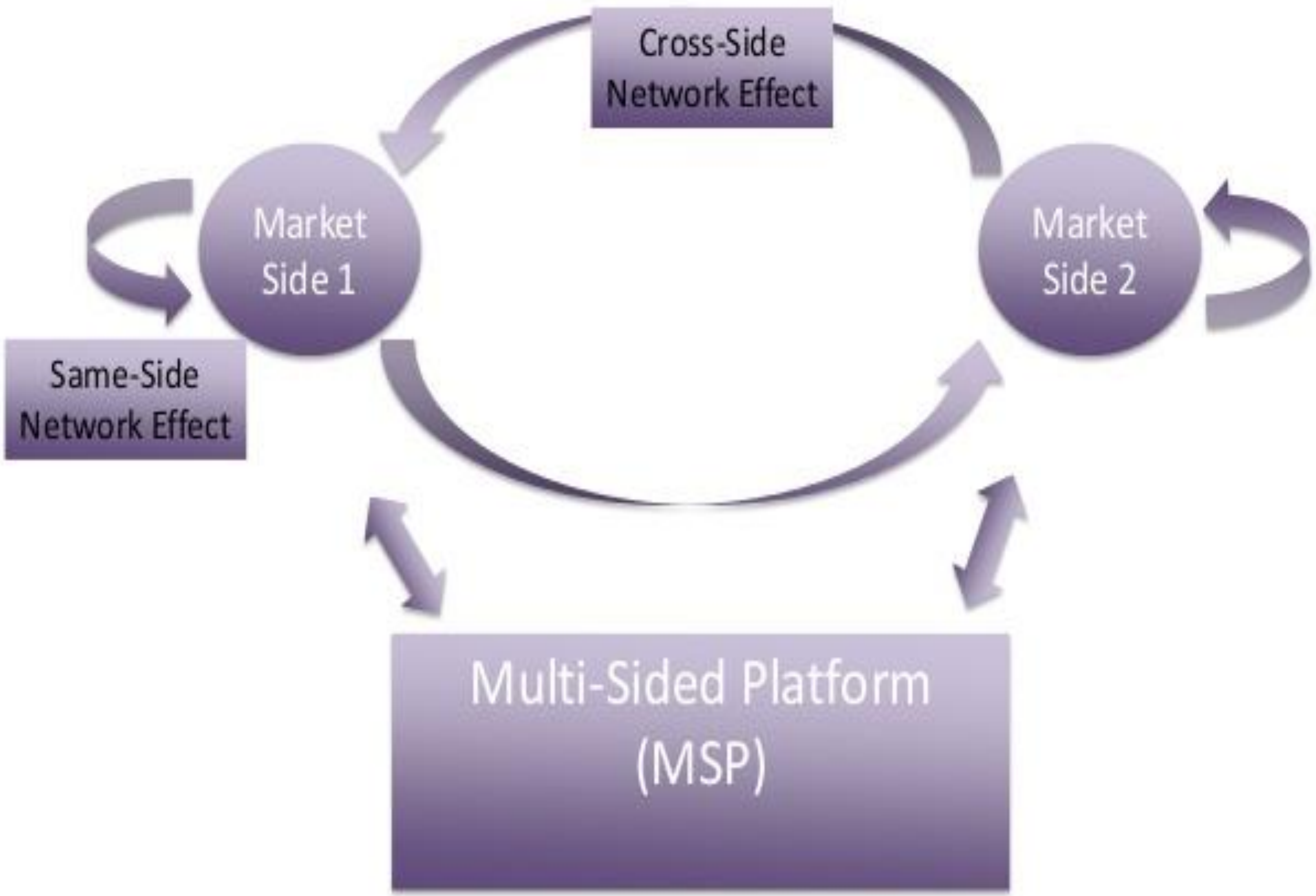
i) One-Sided Platform (market)

Platform Type	Strategic Challenge	Reach and Range Framework	Examples of Mechanisms		
			MobilePay	***Pingit***	***Swish***
One-Sided	Get critical mass of users	Build *Reach*	All banks' customers	All above 16-years old	All participating banks' customers
		Limit *Range*	P2P	P2P	P2P
Two-Sided	Adoption on the second group of participants	Build *Reach*	SMEs Large merchants Webshops	Sole traders Large merchants	SMEs Charities Webshops
		Diversify *Range*	NFC Bluetooth Business Online	*Buy It* button *Pay now with Pingit* button	Swish number for merchants Swish API
	User Stickiness (lock-in effects on the user base)	Strengthen User *Range*	Increase daily payment limit	Twitter payments	New app design
		Grow User *Reach*	Windows Phone app	Windows Phone app	Windows Phone app
		Enable Interside *Range*	C2B transactions	C2B transactions B2C transactions	C2B transactions
	Recurrence (high volume of cross-side transactions between the affiliated sides)	Manage Interside *Range*	Bonus	*Buy It* button	*Pay with Swish* button
		Scale *Reach* on second group of participants	Third-party apps	Insurance companies	Third-party apps

ii) Two-Sided Platform (market)

- Platforms with two (or more) user groups
- Provide each other with
  - *beneficial network effects*

Two-Sided Platform (market) Interactions



Types of Platforms

Two sided Platforms

Facilitate interactions between two customer types

Example
Uber (Drivers and Riders)
AirBnB (Hosts and Renters)

Multisided Platforms

Facilitate interactions amongst more than two customer types

Example
Visa, MasterCard, PayPal
(Account Holders, Merchants, Banks, Developers, Tech Firms)

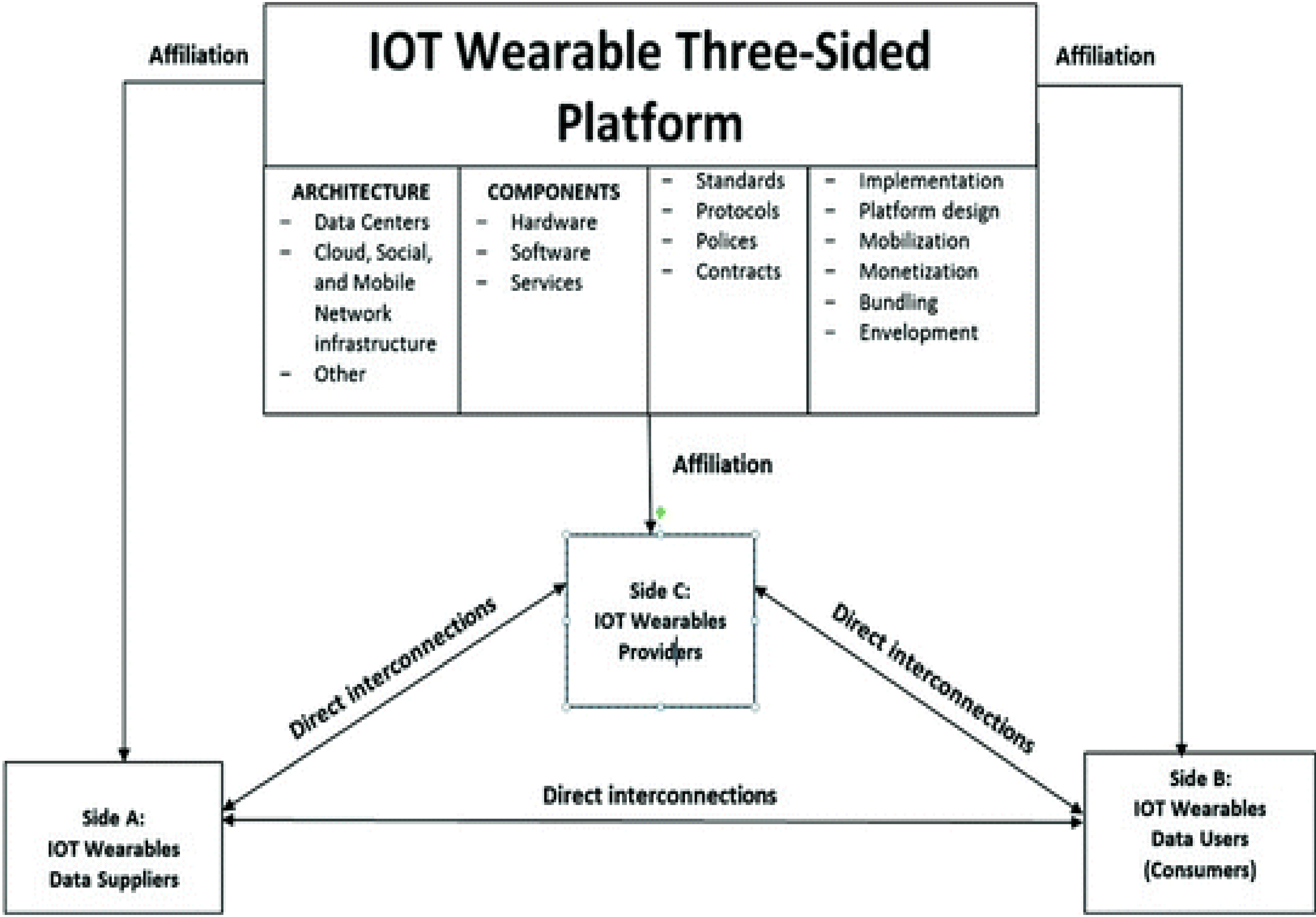
	Asset based	Product/service based	Platform based
Industry examples	• Utilities (power generation) • Real estate • Mining	• Automotive • Consumer goods • White goods	• Software • Social media • Telco
How do you compete	• Scout for assets • Deal making and financial engineering to source assets • Operate efficiently the assets and maximize the yield • Portfolio management of the assets	• Design a winning value proposition to gain customers • R&D, product/service innovation • Brand marketing • Operating costs which generate a profit	• Identify the network effects to activate • Multi-sided platform which fosters rapidly the targeted network effects • Goal is the growth of the networks instead of the short term economic return • Value captured through revenues on multiple sides

TABLE 1[18] Examples of two-sided pricing structures

Industry	Side	Access	Usage
Heterosexual Dating Clubs	Men	√	√
	Women	√	√
DoCoMo i-Mode	User	√	√
	Content-Provider	Ø	√
U.S. Real Estate Brokers	Seller	Ø	√
	Buyer	Ø	Ø
Magazines	Reader	√ (≤MC)	Ø
	Advertiser	Ø	√
Shopping Malls	Shopper	–	Ø
	Store	√	Ø
PC Operating Systems	User	√	Ø
	Developer	√ (<MC)	Ø
Video Game Consoles	Player	√ (≤MC)	Ø
	Game Developer	√ (<MC)	√
Payment Card Systems	Merchant	Ø	√
	Cardholder	√ (<MC)	Ø

Note: √ and Ø indicate that the entity either pays or does not pay, respectively, for either access or usage of the two-sided platform. Items parentheses indicate where marginal does not below respectively, cost pricing prevalent usage of two-sided of a two-sided platform.

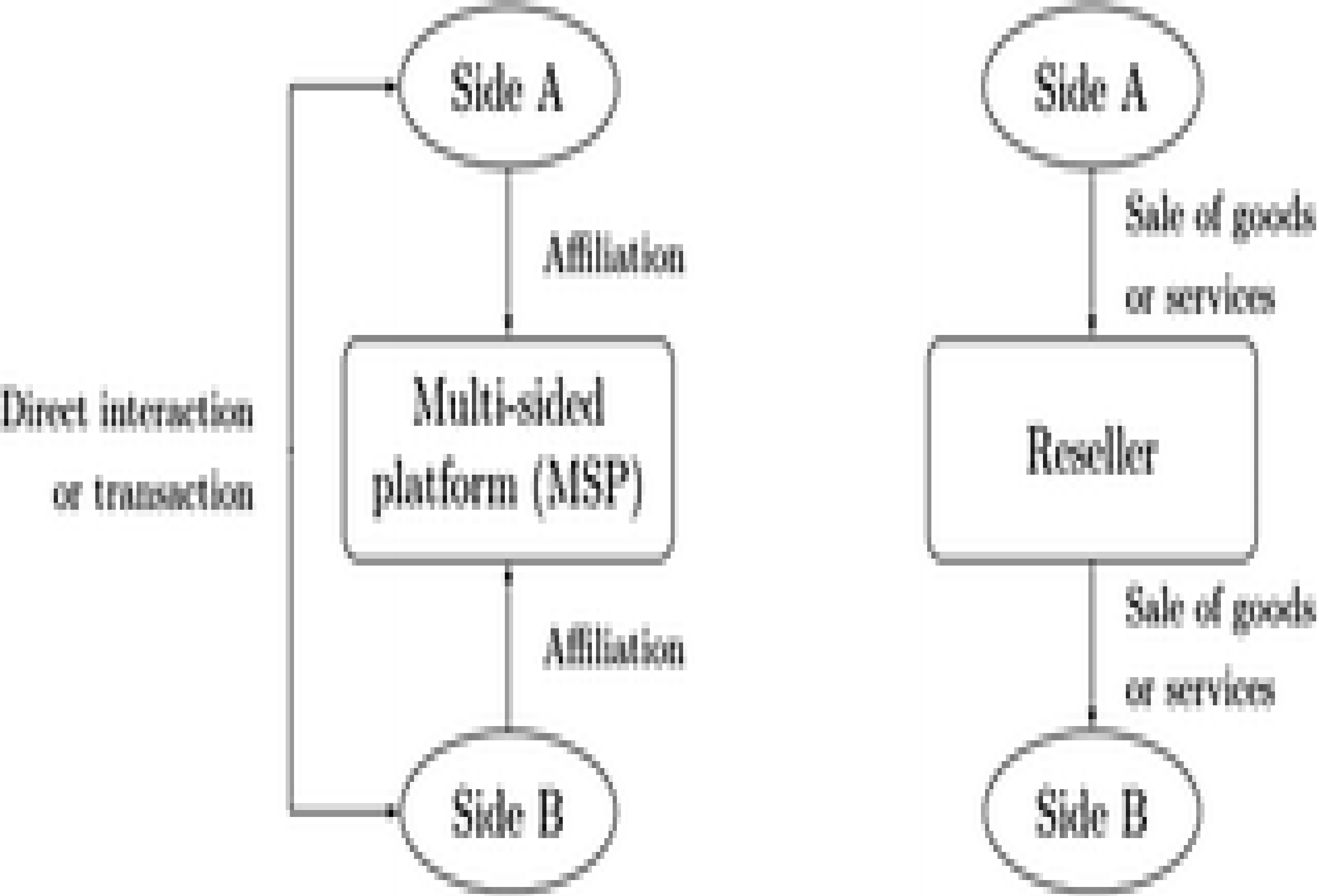
iii) Three-Sided Platform (market)



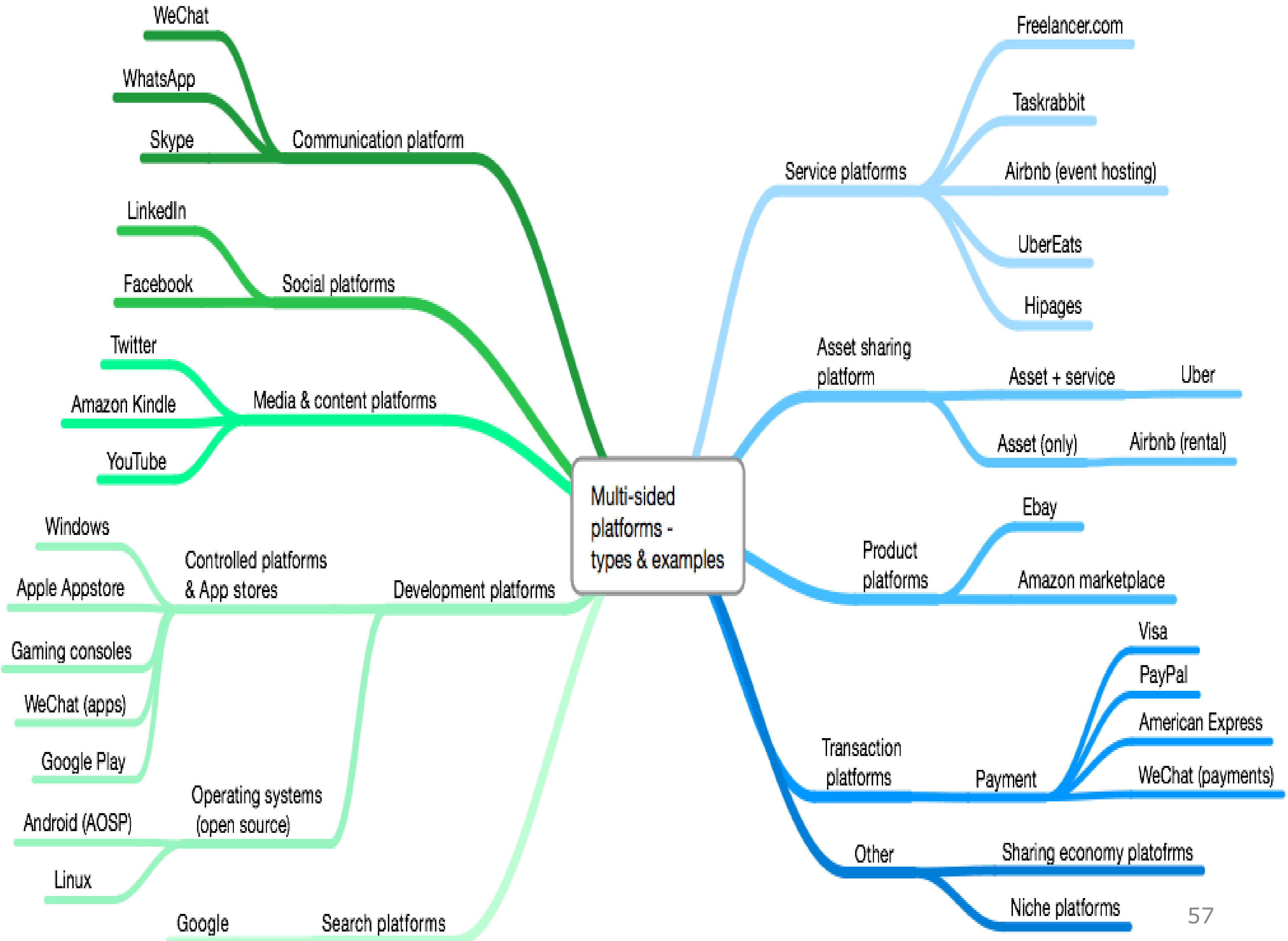
iv) Multi-sided Platform (PSP)

- Platform that facilitates interactions
  - Architecture – product design and infrastructure
  - Rules – terms of engagement and pricing
- Platforms can be shared e.g. cars and gas stations
  - Usually no subsidies in shared platforms
  - Internet makes it easier to own both sides
- MSP is not a reseller
  - Must facilitate direct interaction between markets
- Typically, each side has verydifferent requirements
  - E.g. Credit card customers vs. merchants
  - Providers may specialize in serving a single side
- Key feature: novel pricing and business models
  - Often one market side subsidizes the other
  - E.g. Adobe PDF needed to drop reader price to $0 to succeed

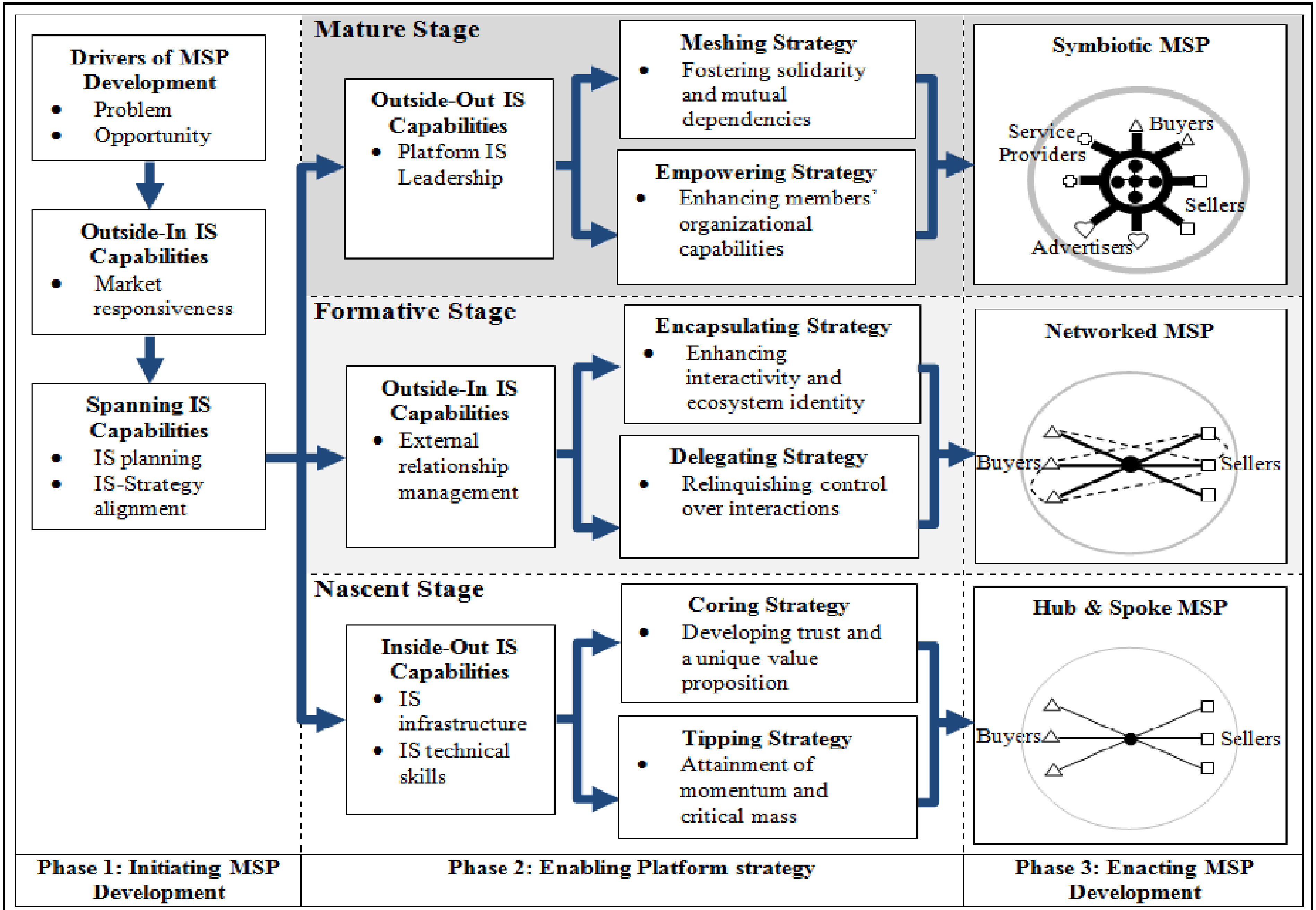
Hagiu A., Wright J. "Multi-Sided Platforms" Harvard Working Paper 12-024



(a) Multi-sided platform (b) Reseller

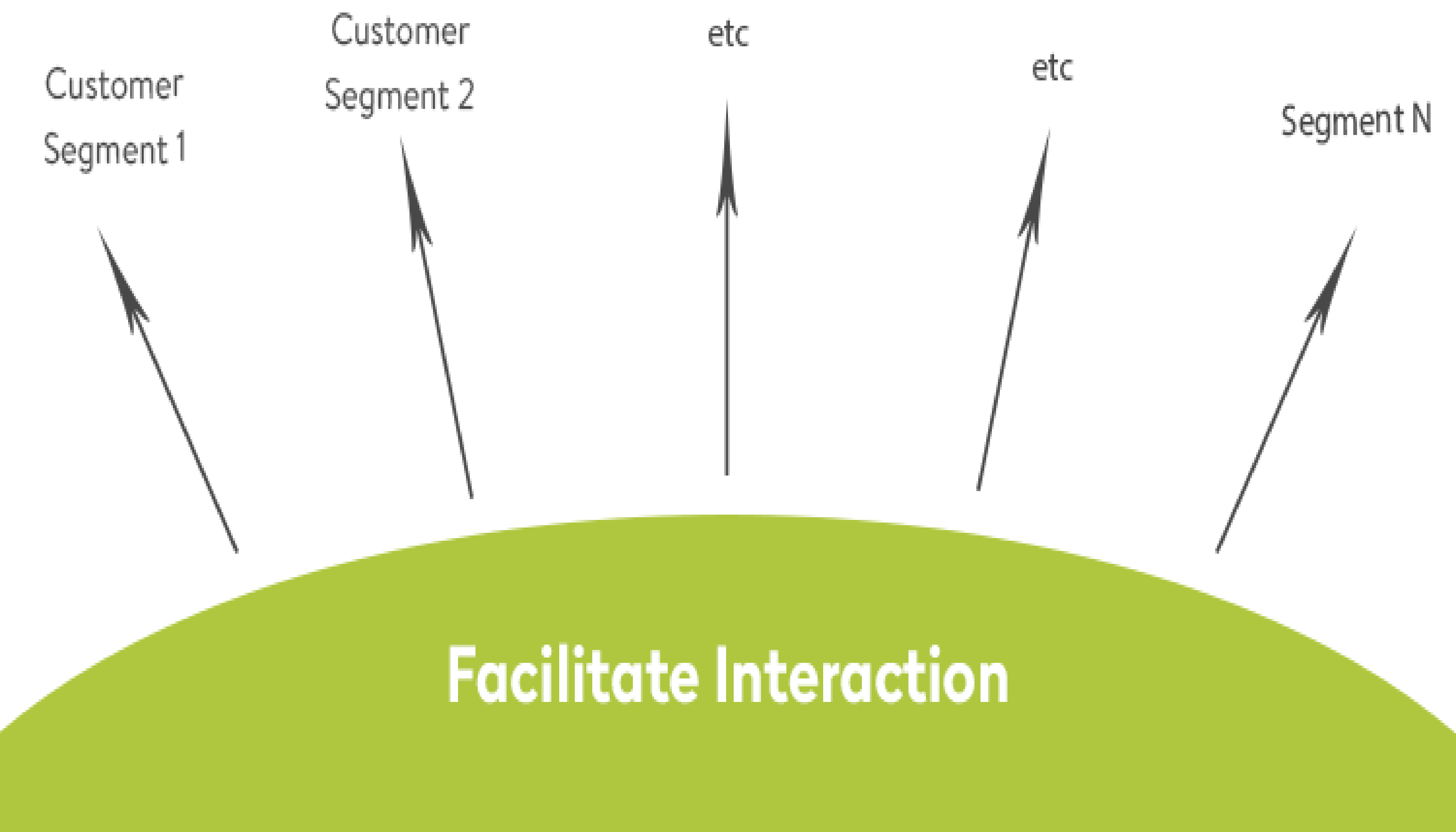

Multi-sided platforms - types & examples
Communication platform
WeChat
WhatsApp
Skype
Social platforms
LinkedIn
Facebook
Media & content platforms
Twitter
Amazon Kindle
YouTube
Development platforms
Controlled platforms & App stores
Windows
Apple Appstore
Gaming consoles
WeChat (apps)
Google Play
Operating systems (open source)
Android (AOSP)
Linux
Search platforms
Google
Service platforms
Freelancer.com
Taskrabbit
Airbnb (event hosting)
UberEats
Hipages
Asset sharing platform
Asset + service
Uber
Asset (only)
Airbnb (rental)
Product platforms
Ebay
Amazon marketplace
Transaction platforms
Payment
Visa
PayPal
American Express
WeChat (payments)
Other
Sharing economy platofrms
Niche platforms

Development of MSP …

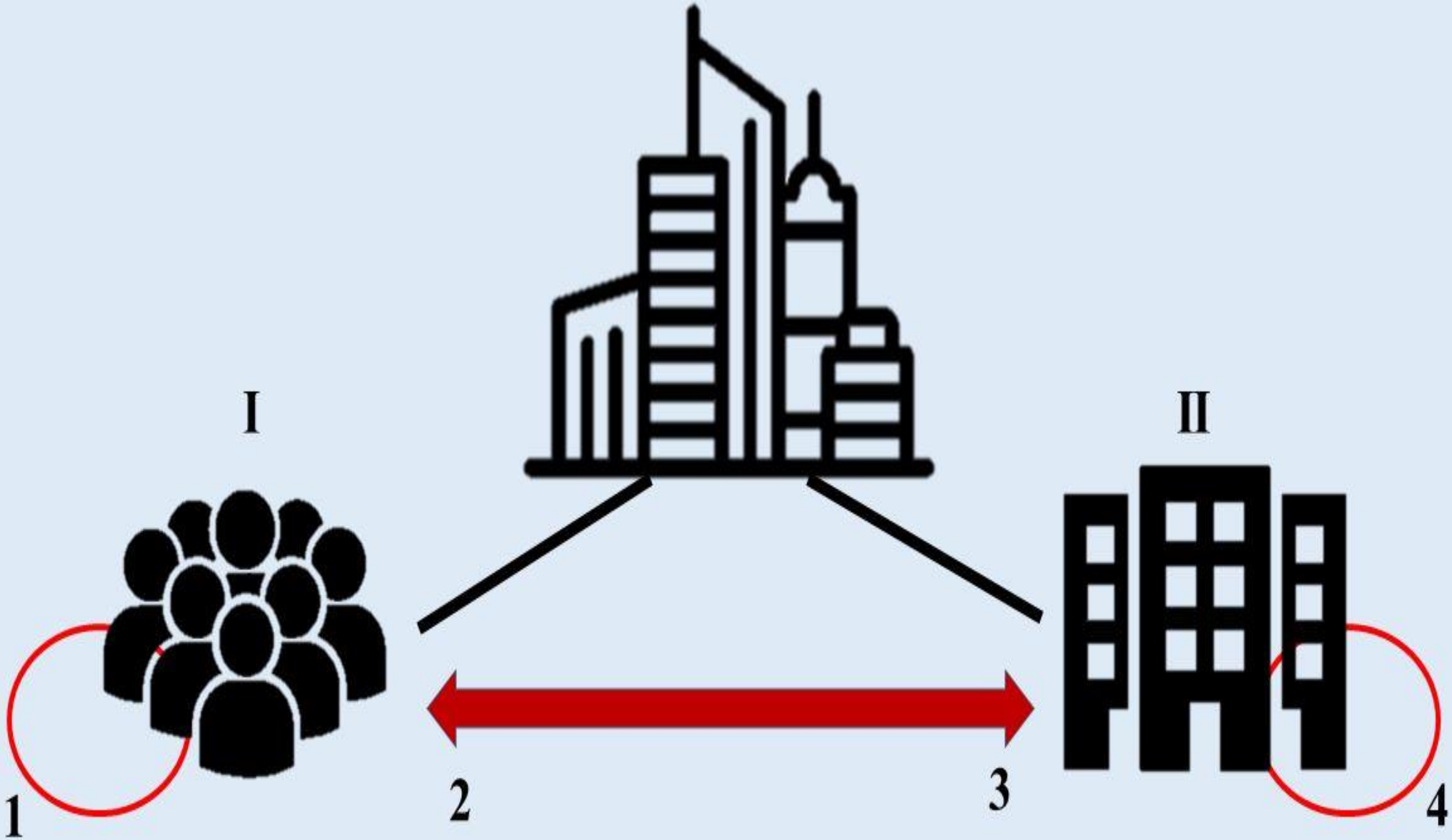


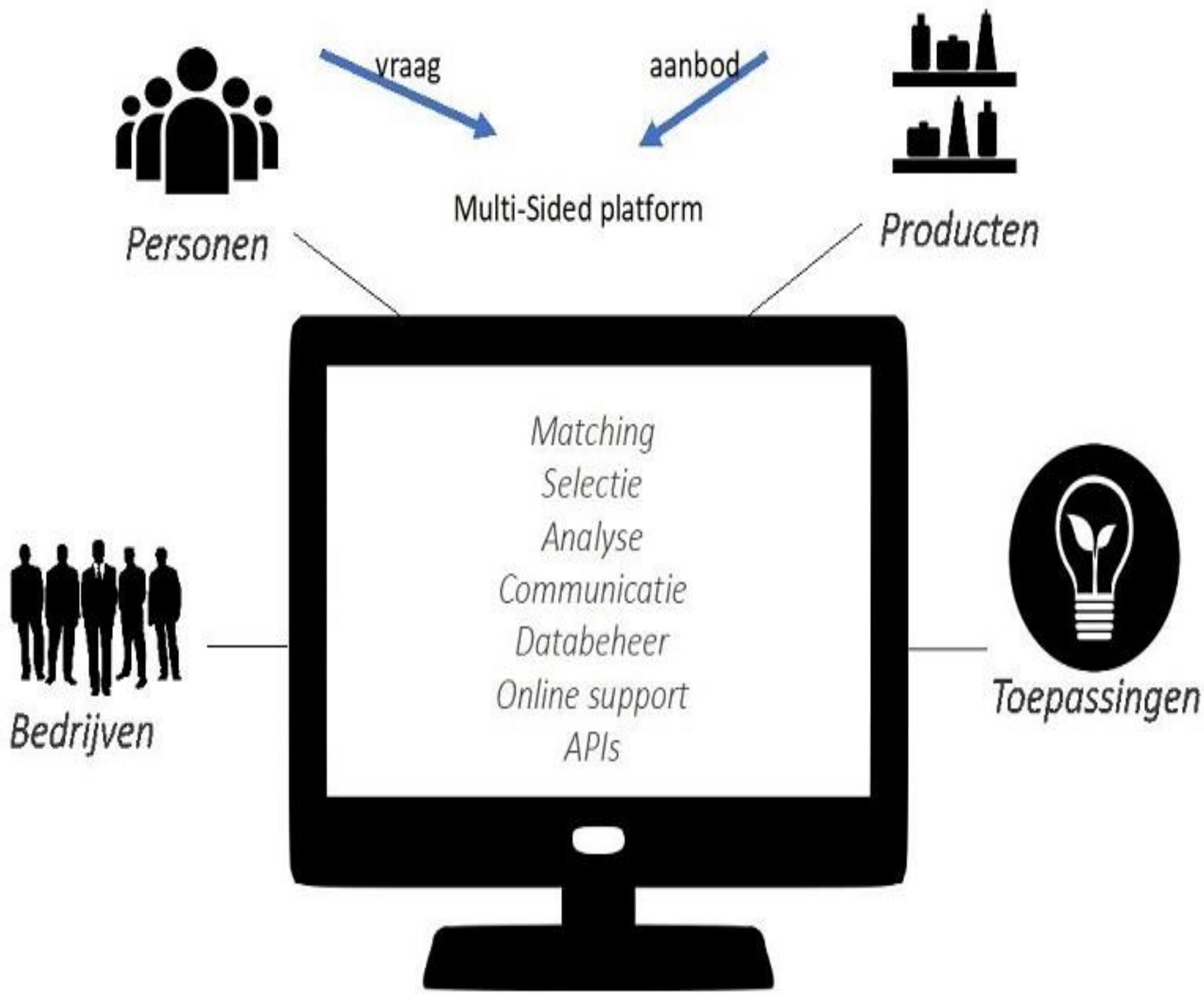
Multi-Sided Platforms (MSP) Global Companies

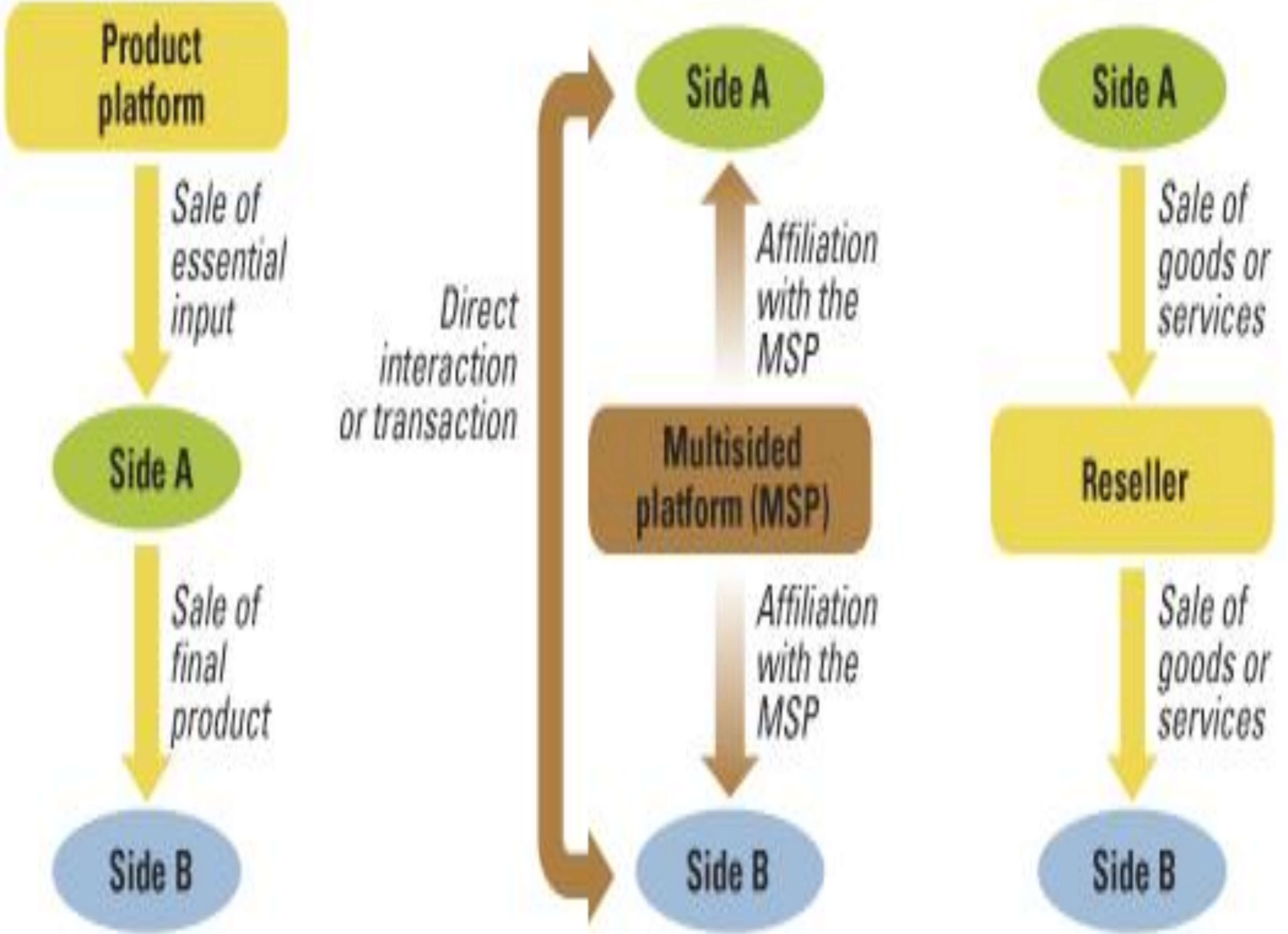
Multi-sided platform business model



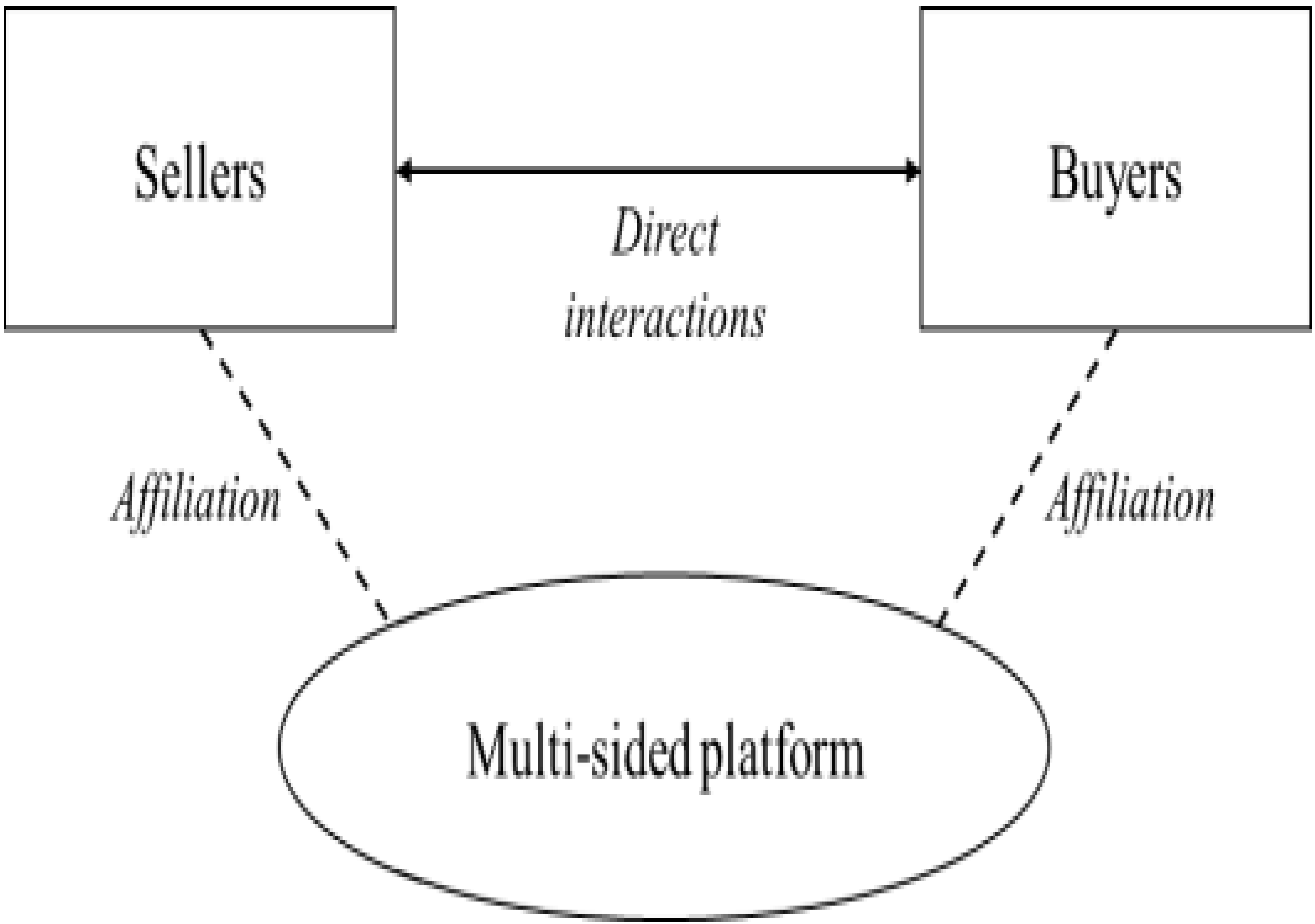
Multi-sided Platforms(MSPs)




vraag
aanbod
Multi-Sided platform
Personen
Producten
Matching
Selectie
Analyse
Communicatie
Databeheer
Online support
APIs
Bedrijven
Toepassingen



Product platform
Sale of essential input
Side A
Sale of final product
Side B
Direct interaction or transaction
Side A
Affiliation with the MSP
Multisided platform (MSP)
Affiliation with the MSP
Side B
Side A
Sale of goods or services
Reseller
Sale of goods or services
Side B

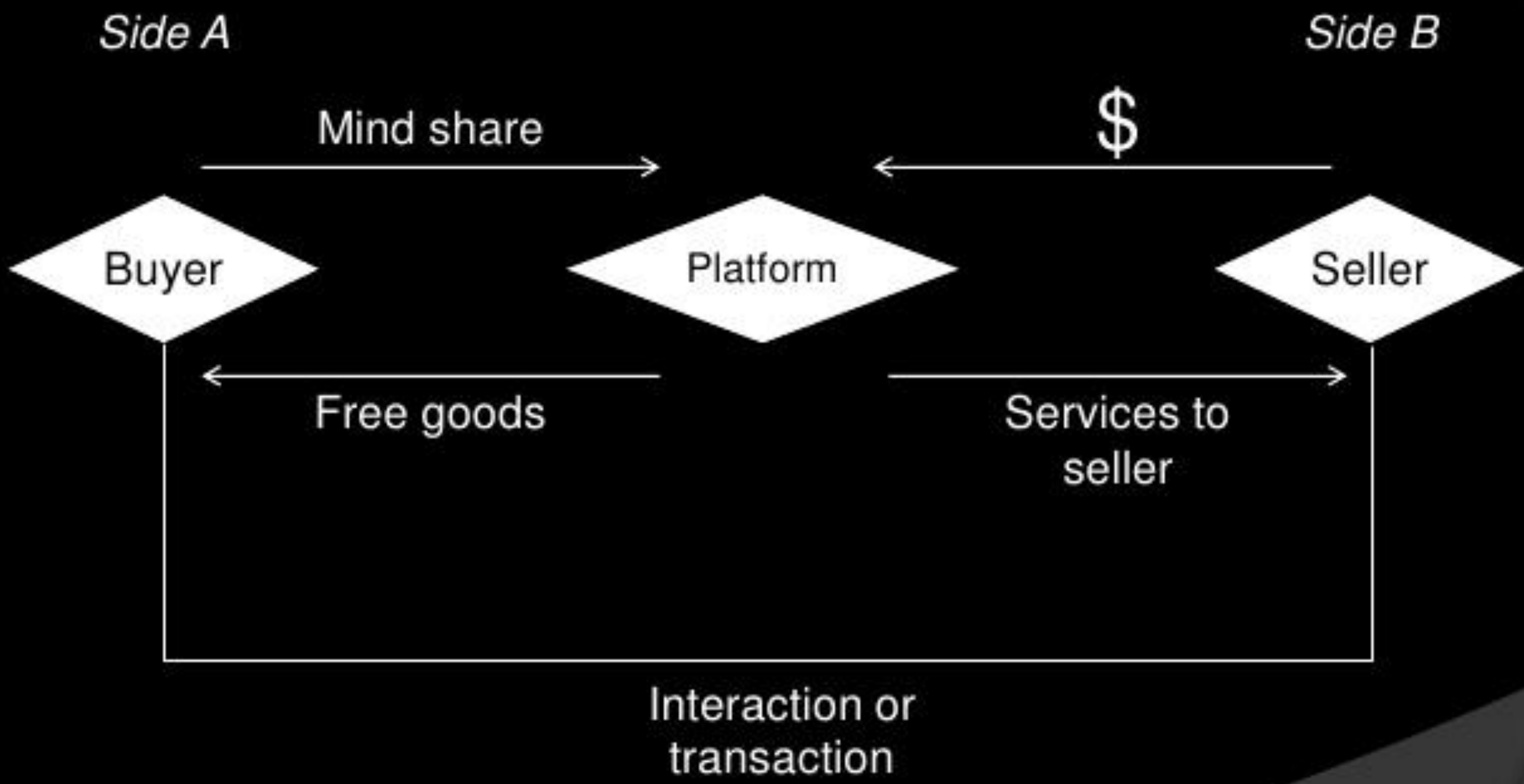


Sellers
Buyers
Direct interactions
Affiliation
Affiliation
Multi-sided platform

Multi-sided Platform Revenue Projection

	Year 1	Year 2	Year 3	Year 4	Year 5
Visitors					
Visitors current base	934,000				
Visitors growth rates	194%	217%	166%	150%	50%
Visitors	2,748,000	8,718,000	23,184,000	57,960,000	86,940,000
Active buyers					
Visitor / buyer conversion rate	5.00%	4.00%	3.00%	2.00%	1.00%
Churn rate	24.0%	23.0%	21.0%	20.0%	19.0%
Opening	100,000	213,400	513,038	1,100,820	2,039,856
New	137,400	348,720	695,520	1,159,200	869,400
Churn	-24,000	-49,082	-107,738	-220,164	-387,573
Closing	**213,400**	**513,038**	**1,100,820**	**2,039,856**	**2,521,683**
Active sellers					
Visitor / seller conversion rate	0.20%	0.15%	0.14%	0.10%	0.10%
Churn rate	31.0%	30.0%	28.0%	27.0%	25.0%
Opening	14,000	15,156	23,686	49,512	94,104
New	5,496	13,077	32,458	57,960	86,940
Churn	-4,340	-4,547	-6,632	-13,368	-23,526
Closing	**15,156**	**23,686**	**49,512**	**94,104**	**157,518**
Transactions					
Transactions / buyer	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Multi-sided platform: 2 transactions



http://nicolaspujol.com/
BY SA

platform industries

Multisided platform	Money side	Subsidy side	Typical price on subsidy side
Video game consoles	Game publishers pay royalties	Consumers pay marginal cost or less for console.	Below cost
PC operating systems	Computer users pay directly or indirectly through computer maker.	Developers do not pay access fees for operating system APIs and only pay a nominal amount for a software development kit.	Free
Physical newspapers	Advertisers pay.	Readers usually pay less than the marginal cost of printing and distribution and sometimes pay nothing.	Below cost
US broadcast TV	Advertisers pay.	Consumers do not pay.	Free
Credit cards	Merchants pay for transactions.	Consumers do not pay for transactions and sometimes get rewards.	Negative
Enclosed shopping malls	Retail stores pay.	Shoppers do not pay, get free parking at suburban malls, and often get free entertainment.	Free to negative
US real estate brokers	Sellers pay commission.	Buyers do not pay.	Free
Equity exchanges	Liquidity takers pay commission.	Liquidity providers often receive subsidies.	Negative
Online marketplaces	Sellers often pay commission.	Buyers usually do not pay.	Free
Job recruiters and online job boards	Employers pay for postings or recruitment.	Job seekers do not pay.	Free
Yellow pages	Businesses pay for listings.	Consumers do not pay.	Free
Search engines	Businesses pay for advertisements.	Searchers do not pay.	Free
Nightclubs	Men pay.	Women sometimes get in for free or get below-cost drinks.	Below cost or free

Money and subsidy sides for common multisided platform industries

Multisided platform	Money side	Subsidy side	Typical price on subsidy side
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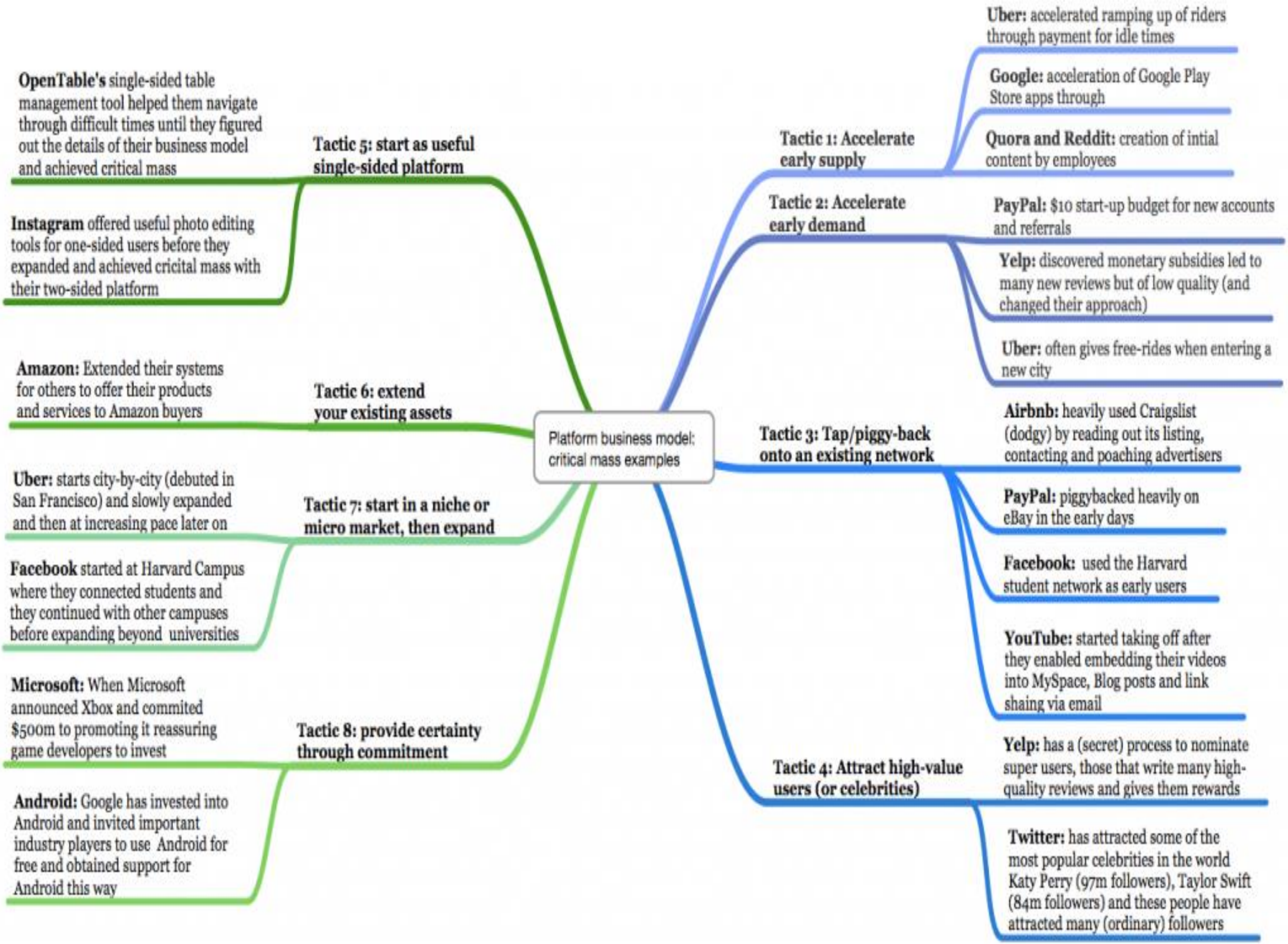
Multi-sided platforms

Platform bringing together two or more distinct but interdependent groups of customers

Interaction through *cloud platform*

External innovators and *client-companies* are free to interact with each other directly

The *multisided* platform seem to be the best option and fit cloud consulting model


Platform business model: critical mass examples
Tactic 1: Accelerate early supply
Uber: accelerated ramping up of riders through payment for idle times
Google: acceleration of Google Play Store apps through
Quora and Reddit: creation of intial content by employees
Tactic 2: Accelerate early demand
PayPal: $10 start-up budget for new accounts and referrals
Yelp: discovered monetary subsidies led to many new reviews but of low quality (and changed their approach)
Uber: often gives free-rides when entering a new city
Tactic 3: Tap/piggy-back onto an existing network
Airbnb: heavily used Craigslist (dodgy) by reading out its listing, contacting and poaching advertisers
PayPal: piggybacked heavily on eBay in the early days
Facebook: used the Harvard student network as early users
YouTube: started taking off after they enabled embedding their videos into MySpace, Blog posts and link shaing via email
Tactic 4: Attract high-value users (or celebrities)
Yelp: has a (secret) process to nominate super users, those that write many high-quality reviews and gives them rewards
Twitter: has attracted some of the most popular celebrities in the world Katy Perry (97m followers), Taylor Swift (84m followers) and these people have attracted many (ordinary) followers
Tactic 5: start as useful single-sided platform
OpenTable's single-sided table management tool helped them navigate through difficult times until they figured out the details of their business model and achieved critical mass
Instagram offered useful photo editing tools for one-sided users before they expanded and achieved cricital mass with their two-sided platform
Tactic 6: extend your existing assets
Amazon: Extended their systems for others to offer their products and services to Amazon buyers
Tactic 7: start in a niche or micro market, then expand
Uber: starts city-by-city (debuted in San Francisco) and slowly expanded and then at increasing pace later on
Facebook started at Harvard Campus where they connected students and they continued with other campuses before expanding beyond universities
Tactic 8: provide certainty through commitment
Microsoft: When Microsoft announced Xbox and commited $500m to promoting it reassuring game developers to invest
Android: Google has invested into Android and invited important industry players to use Android for free and obtained support for Android this way

Multi-Sided Platform Business

- A multi-sided platform business model is different from two-sided because here the users do not create direct value in terms of cash. For example in case of Facebook, although more users are benefitting the platform, these users are not paying for the service. Facebook is still deriving revenue from more users, but through advertisers.
- So, the more the number of users, the more number of advertisers would want to advertise and more the revenue. Other examples of Multi-sided platform model include Google and Facebook.

Exhibit 1: **A Sampling of Multisided Markets**

	Customers	Who Pays
Network Television	viewers, advertisers	advertisers
Payment Cards	cardholders, merchants	in large part, merchants
Yellow Pages	phone shoppers, merchants	merchants
Computer Operating Systems	hardware makers, software applications developers, computer users	computer users
Video Game Consoles	players, game makers	both sides
Web Auctions	buyers, sellers	sellers

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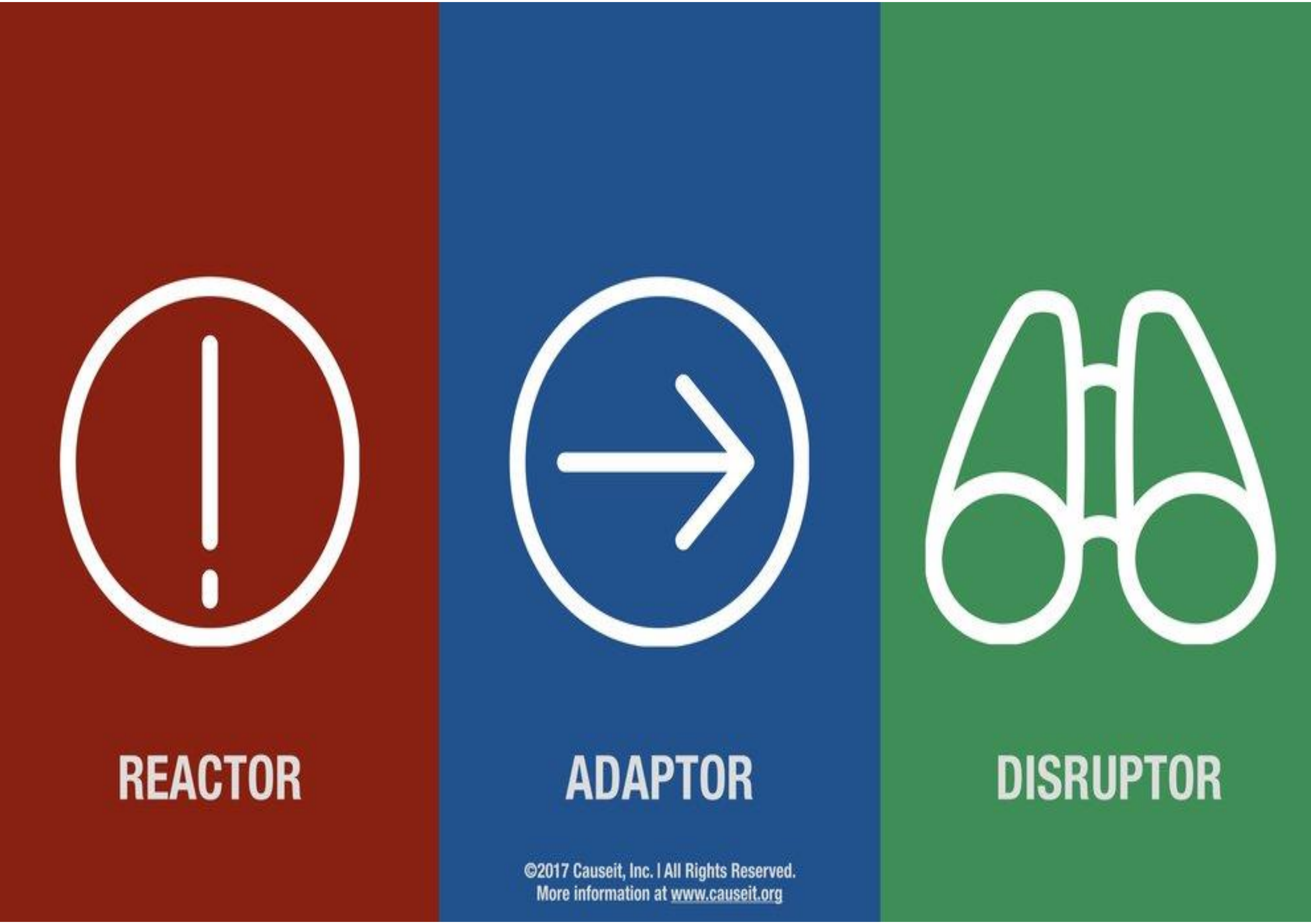
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ADAPTOR
DISRUPTOR
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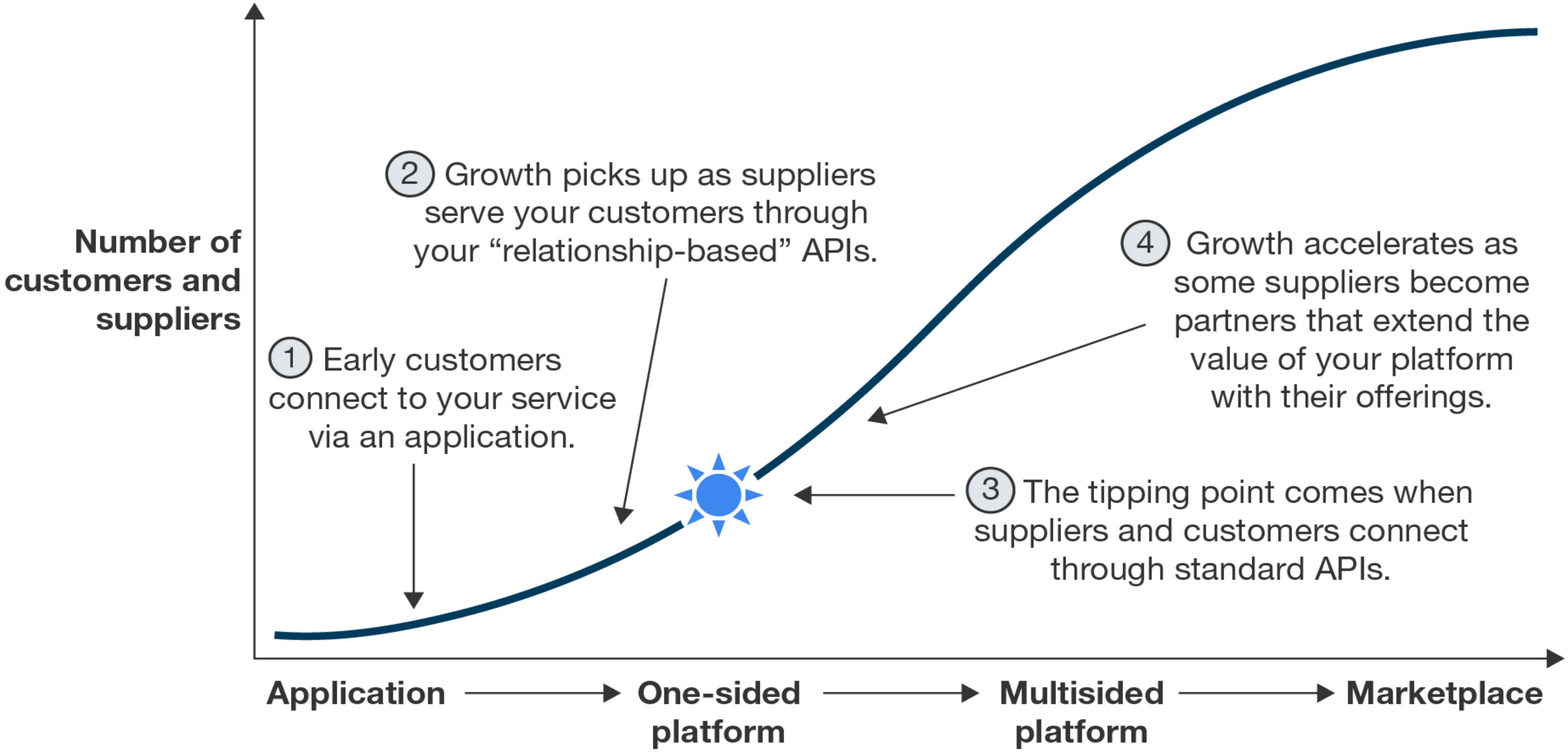
Platform Businesses Follow A Common Path, From Application Toward Marketplace

Earn Your Place In The Platform Economy



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Multisided platforms: Typology (3)

- **Peer-to-peer marketplaces** → A.k.a. 'Sharing economy'
- **Crowdfunding platforms** → Link entrepreneurs to funders
- **Transaction systems** → provide a method for payment to buyers and sellers that are willing to use it

Business Model Canvas

For: Darcy Taylor, Pinterest Business Model

Key Partners
Collaborate with payment collection partners (i.e. credit cards) since this is not Pinterest's main focus, but necessary to their business model

Key Activities
*Site maintenance/upgrading
*Employee hiring/training
*R&D to investigate new technologies to stay competitive

Key Resources
*Technology (pinning, website)
*Pinterest people (employees)
*Payment collection system
*New technology (i.e. visual recognition)

Value Propositions
*Advertisers: effective, highly targeted forms of advertising
*"Pinterest Pros": you already have influence-- why not get paid a little for what you do?
* Inspiration-seekers: Pinterest is the source of your inspirations and gives you the tools to make an idea a reality

Customer Relationships
Self service through Pinterest website:
*Advertisers can build an advertising plan by adding options to their cart
*Pinterest Pros directions on Pinterest on how to set up a Pro account
*Inspiration-seekers sign up to use the site like they currently do

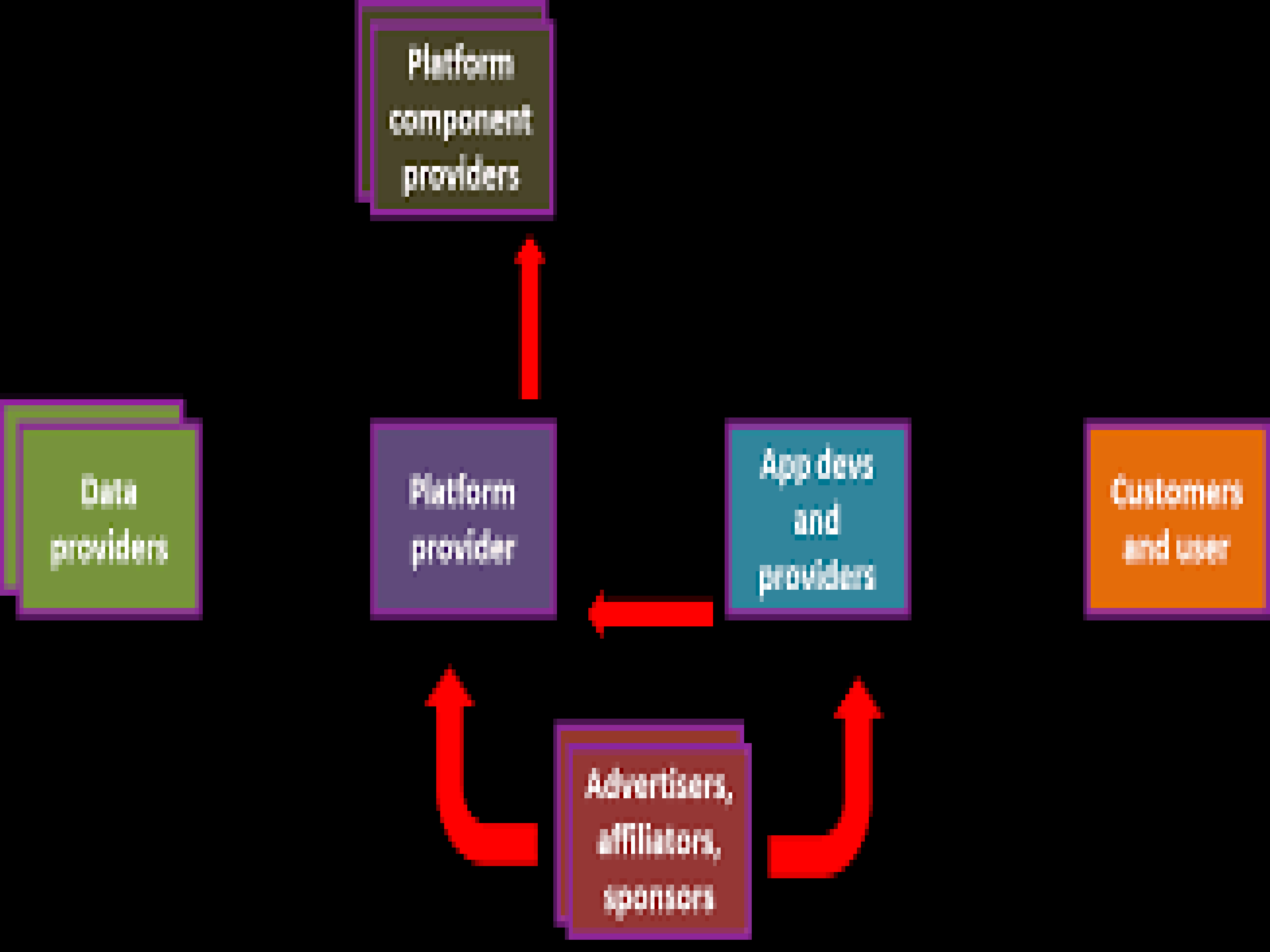
Channels
*Pinterest website, with customized pages and content for Advertisers, Pros, and Inspiration-seekers
*Pinterest to contact influencers to make them aware of the "Pinterest Pro" service

Customer Segments
*Advertisers: companies wishing to advertise to Pinterest users
*"Pinterest Pros": Pinterest influencers with a strong following that sign up for a "pro" account and feature up to 20% of "promoted content" from advertisers
* Inspiration-seekers: primary consumers of content on Pinterest; looking for inspiration

Cost Structure
*Technological infrastructure for website
*Employees
*Payment collection sites/methods
*R&D

Revenue Streams
Revenue will come from advertising, from 5 main services:
1) Paid search (advertisers pay to have their pins/boards come to the top of a search)
2) Promoted pins: Advertisers pay to be connected with Promoters, who will share their content as "promoted pins."
3) "You might also like": using visual-recognition technology, Pinterest can suggest an advertiser's product which is similar to what a user has just pinned
4) "Pinterest suggests": Pinterest serves up content the user might like based on their interests and past searches, putting some of the promoted content towards the top
(Note: Inspiration-seekers and "Pinterest Pros" are FREE)

Organizational goal	Description and evidence	
Collectivism amongst SMEs	Empower sellers	“Where traditionally firms would work for profit, our [Alibaba’s] focus is on the needy…. We very much appreciate the volume of SMEs over providing exclusive services, and our shorter term strategy is B2B because no one else is doing it, (the goal is) to stimulate user account growth and address the information needs of our customers.” (Vice-President, Alibaba Group)
IT affordance	**Description and evidence**	
Lower barriers to market entry (seller-side)	Provide free access to resources for trading online through the IT platform	“[The] first stage is to service only Alibaba. Using our rich traders’ data and unique money-on-delivery payment model, we first ensure insurance and trust between our sellers and buyers on Alibaba…. The government has interests in a credit system, including credit settlement and loans. We prefer to listen and fulfil our customers’ needs … to them [SMEs], Alipay is like providing warmth on a bitter winter day, and we become the trusted ally in payment.” (Executive Vice-President (Strategy), Alipay) “… unlike search engines, we are the owners of the information…. The rise of the Internet empowers us to provide technical expertise and lower trading costs for our clients.” (Vice-President, Alibaba Group)
	Offer inclusive access for services	“We could have diversified earlier but [Jack] Ma told us to focus and place our resources just on the B2B e-business services platform for SMEs, this will be our foundation…. There were other sites helping clients search for a market for their goods etcetera, but we [Alibaba] will offer to help set up their business.” (B2B General Manager, Alibaba)
Access to core competencies (buyer side)	Increase knowledge exchanges through IT	“If [e-commerce] knowledge is low, we ask firms to post their corporate details and products via a bulletin board system…. As information builds and because we control the information, we can help our clients find supplier information, product specifications, trading relationships…. We then inform them of where to find this information on our site, via email. Using this information, we can potentially connect buyers to sellers and vice versa.” (B2B General Manager, Alibaba)
Competitive action	**Description and evidence**	
De facto B2B trading platform	Educate masses of SMEs on online trading	“We educate our SMEs so that they address their own skills shortage problems…. Compared [with the US], we offer education to SMEs in China and a more stable online trading structure.” (Executive Vice-President (Strategy), Alipay) “We addressed SMEs’ biggest desire [which is] to conduct their business online and to connect with other SMEs globally…. The other sites slowly peeled away after realizing that too late.” (B2B General Manager, Alibaba)


Platform component providers
Data providers
Platform provider
App devs and providers
Customers and user
Advertisers, affiliators, sponsors

Firms	Amazon	eBay	Apple iPhone
Renewal strategies	Finding new ways to deliver products (drones) Creating new devices (FireTV)	Becoming a ubiquitous digital wallet for consumers and merchants	Working on new devices, new screen and new design
With Partners	Yes	Yes	Yes and No

Table 4: Renewal strategies

Taking a More Open Approach to the Analysis of Market Definition and Power for Two-Sided Platforms

Assess the linkages between customer sides and whether the magnitude of the cross-effects merit consideration.

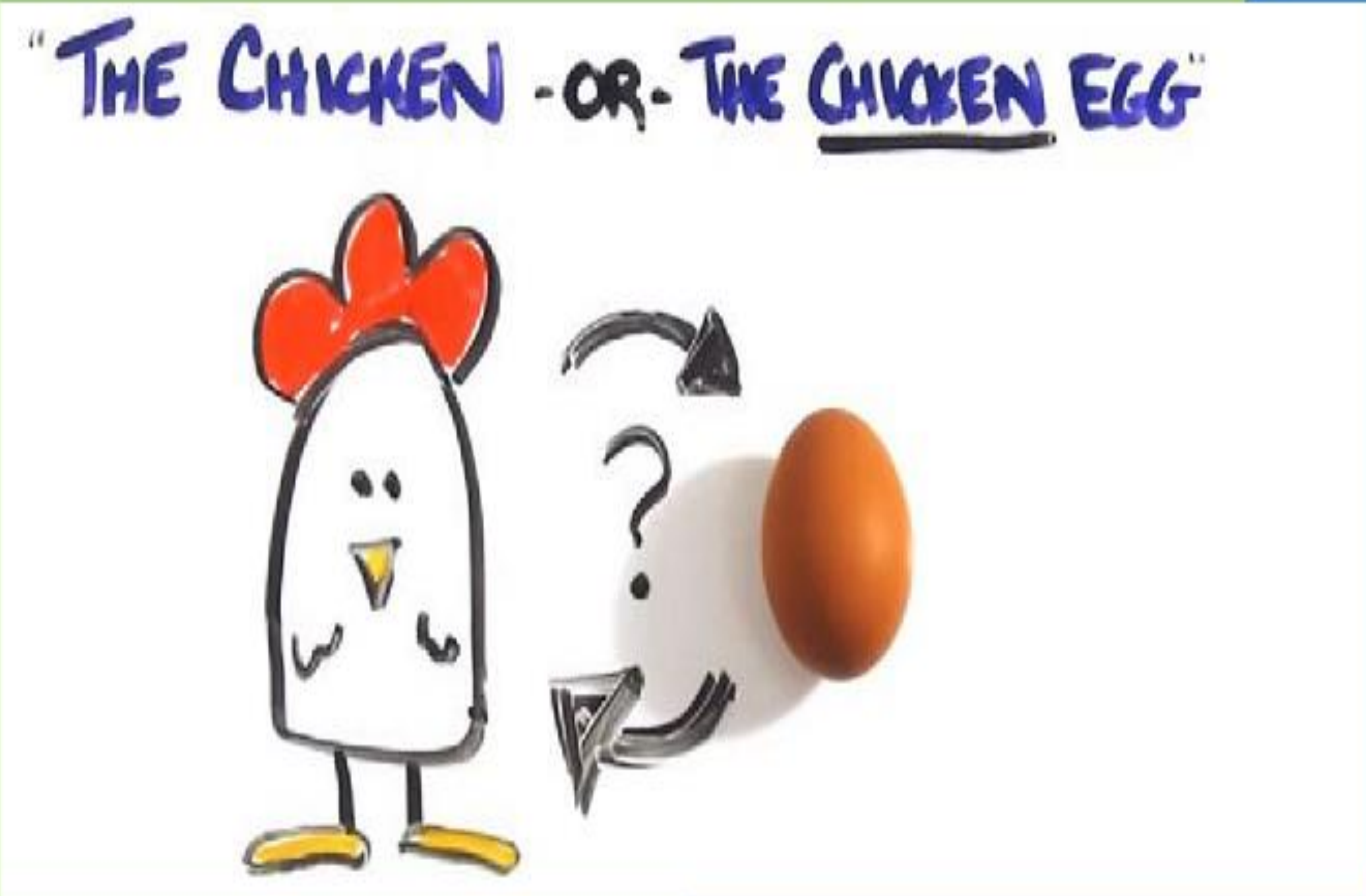
Establish the contours of the "business ecosystem" in which the two-sided platform lives including competition with single-sided and multi-sided platforms.

Use platform concepts to assess effects including in market power for the platform overall and effects on the welfare of platform customers combined.

Focus on ***competitive effects*** rather than a precise market definition.

3) Factors affecting Platforms

… Psychology …



… Information …

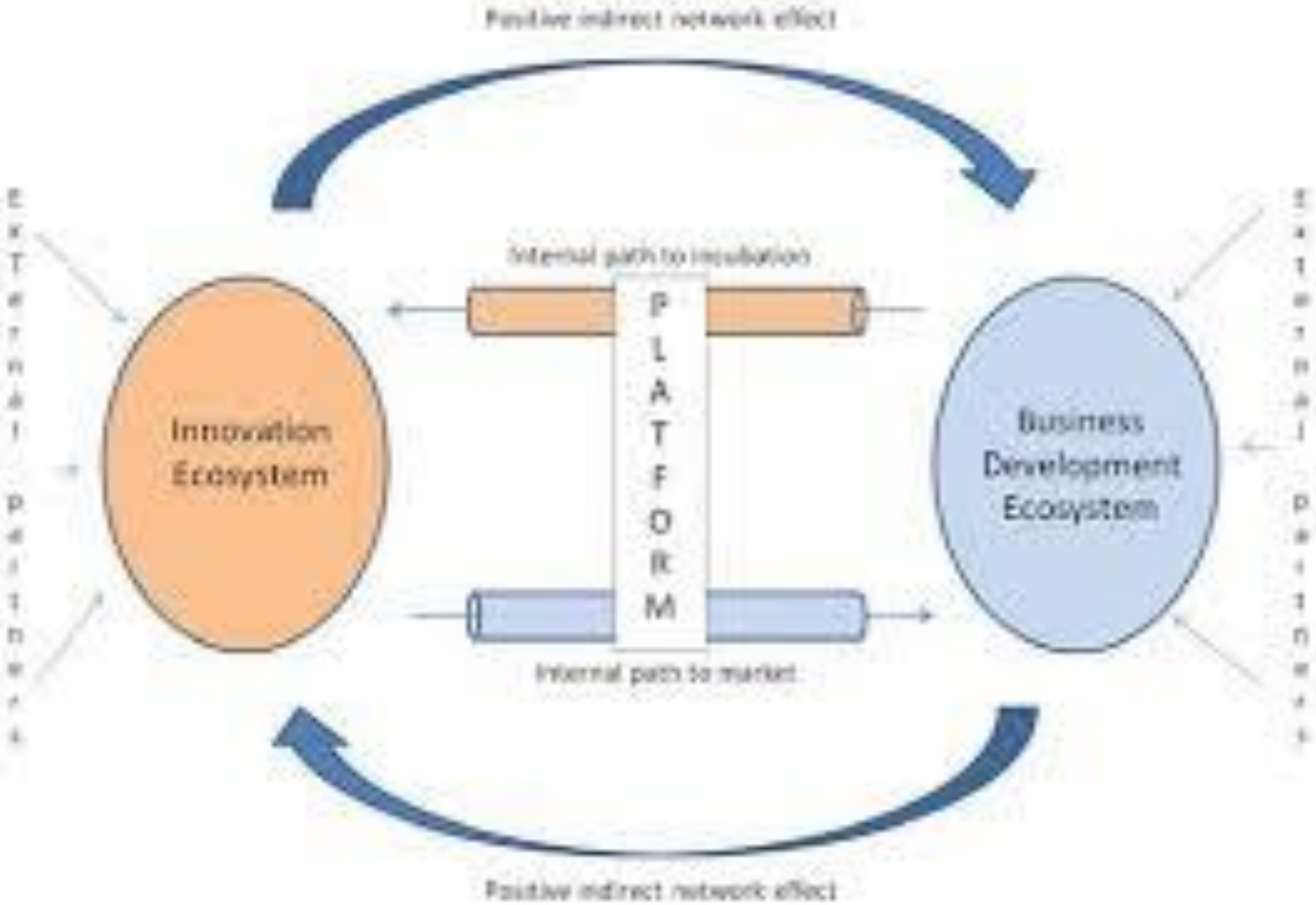
”

Multisided platforms must attract two or more types of customers by enabling them to interact on favorable terms. They may be physical or virtual in nature.

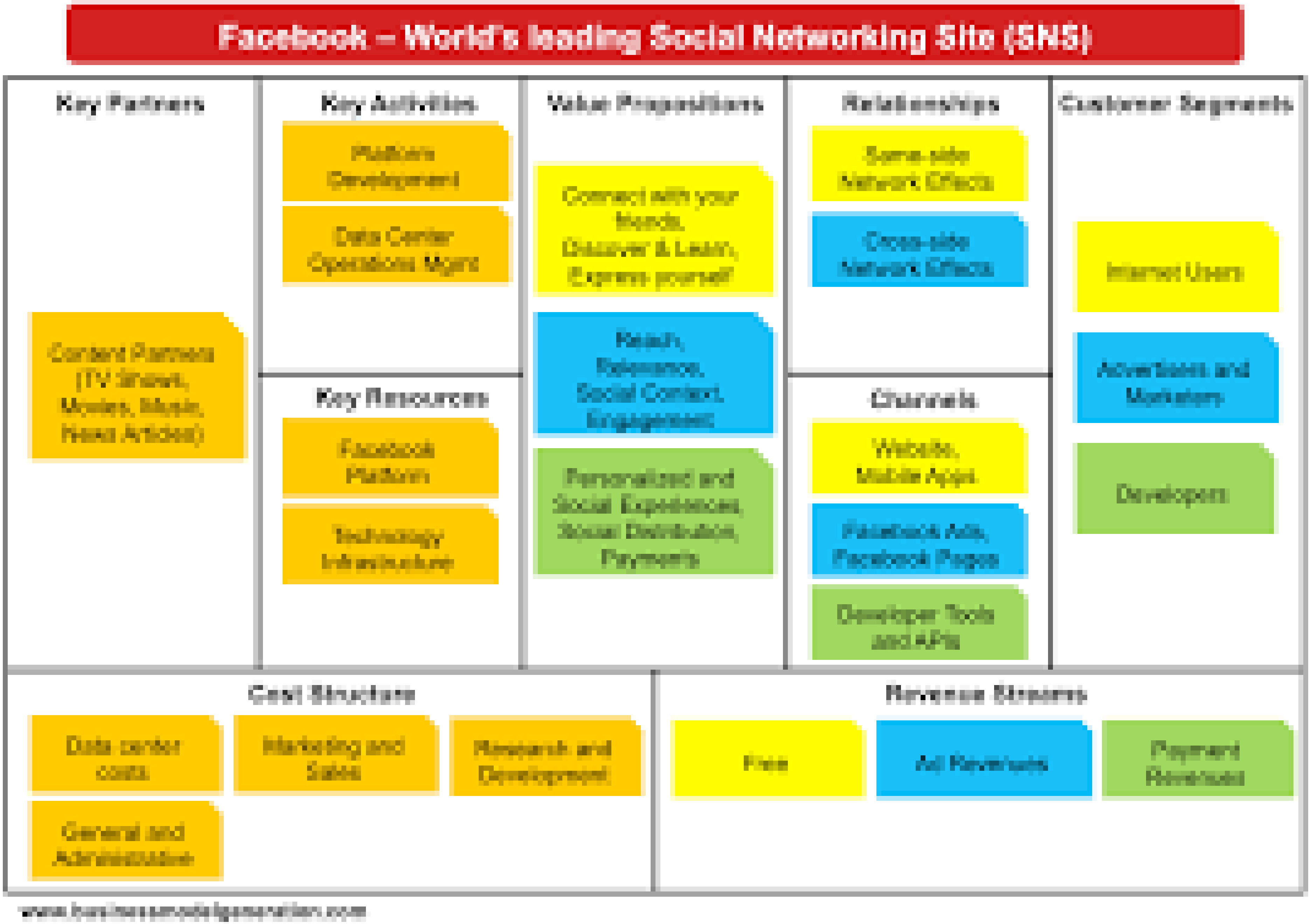
Richard Schmalensee

Matchmakers, The New Economics of Multisided Platforms

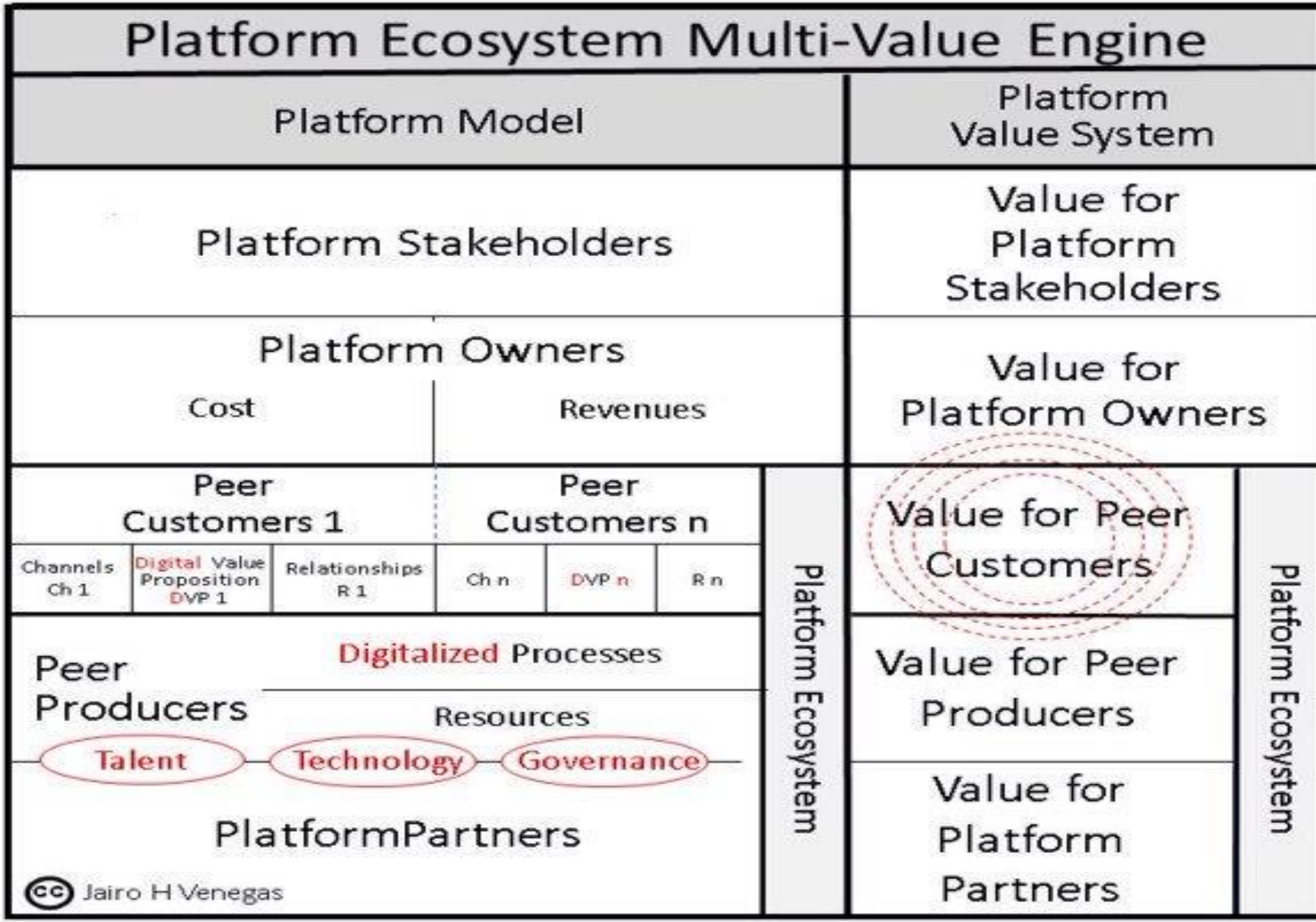
… Value System / Philosophy …



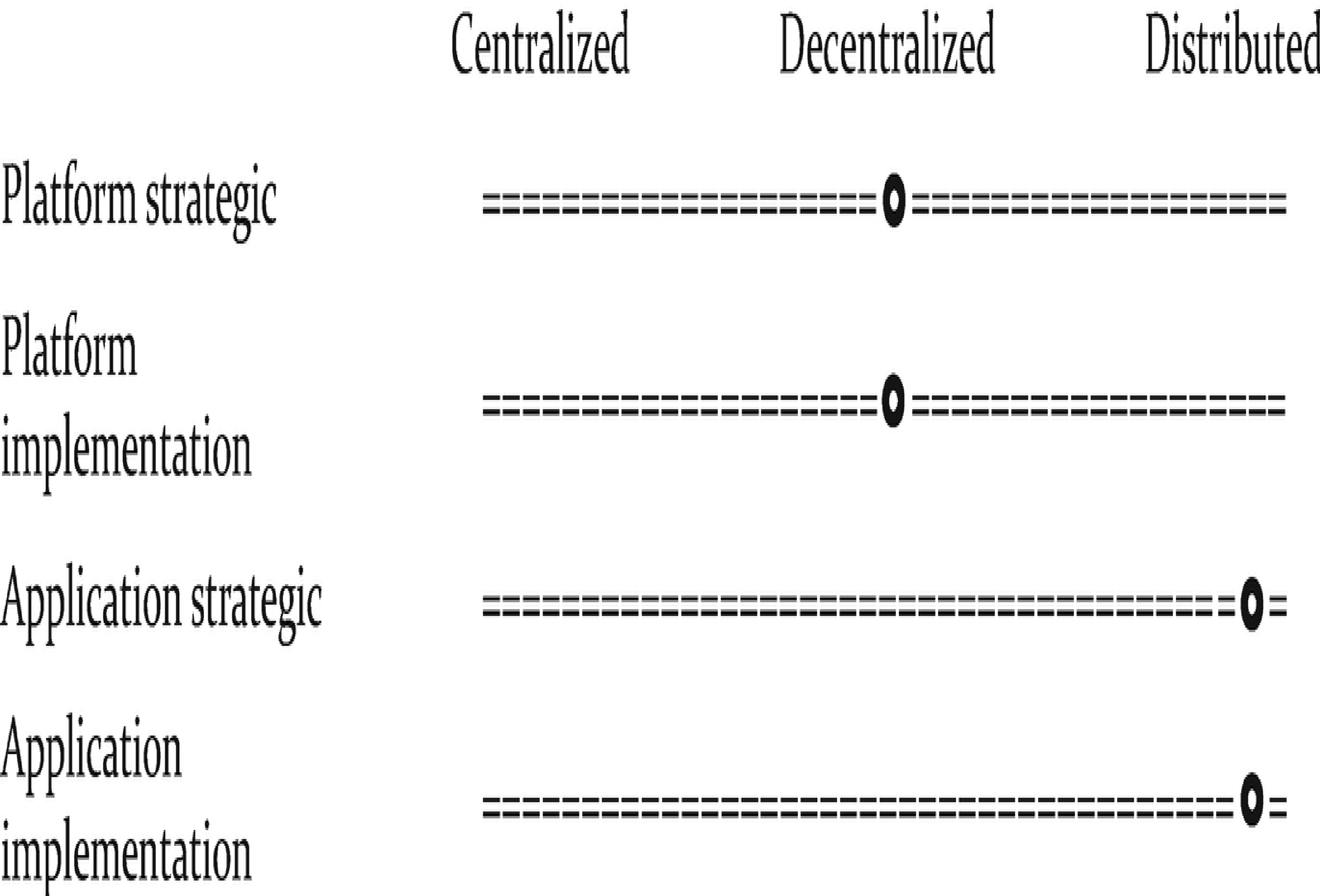
… Bias & Risk Profile …



… Uncertainty …



… Complexity …


Centralized
Decentralized
Distributed
Platform strategic
Platform implementation
Application strategic
Application implementation

… more on Factors …

Factors to Consider in Evaluating Vertical Restraints for Platforms

Impact of restraints on achieving critical mass.

- To what extent do restraints preclude strategies necessary for reaching critical mass and are there effective counterstrategies.

Platform and Industry Stage of Development.

- Restraints more likely to be residue of procompetitive strategy and still provide efficiencies in earlier stages.

Impact on all sides.

- Benefits and costs should be evaluated by looking at impact on all customer sides.

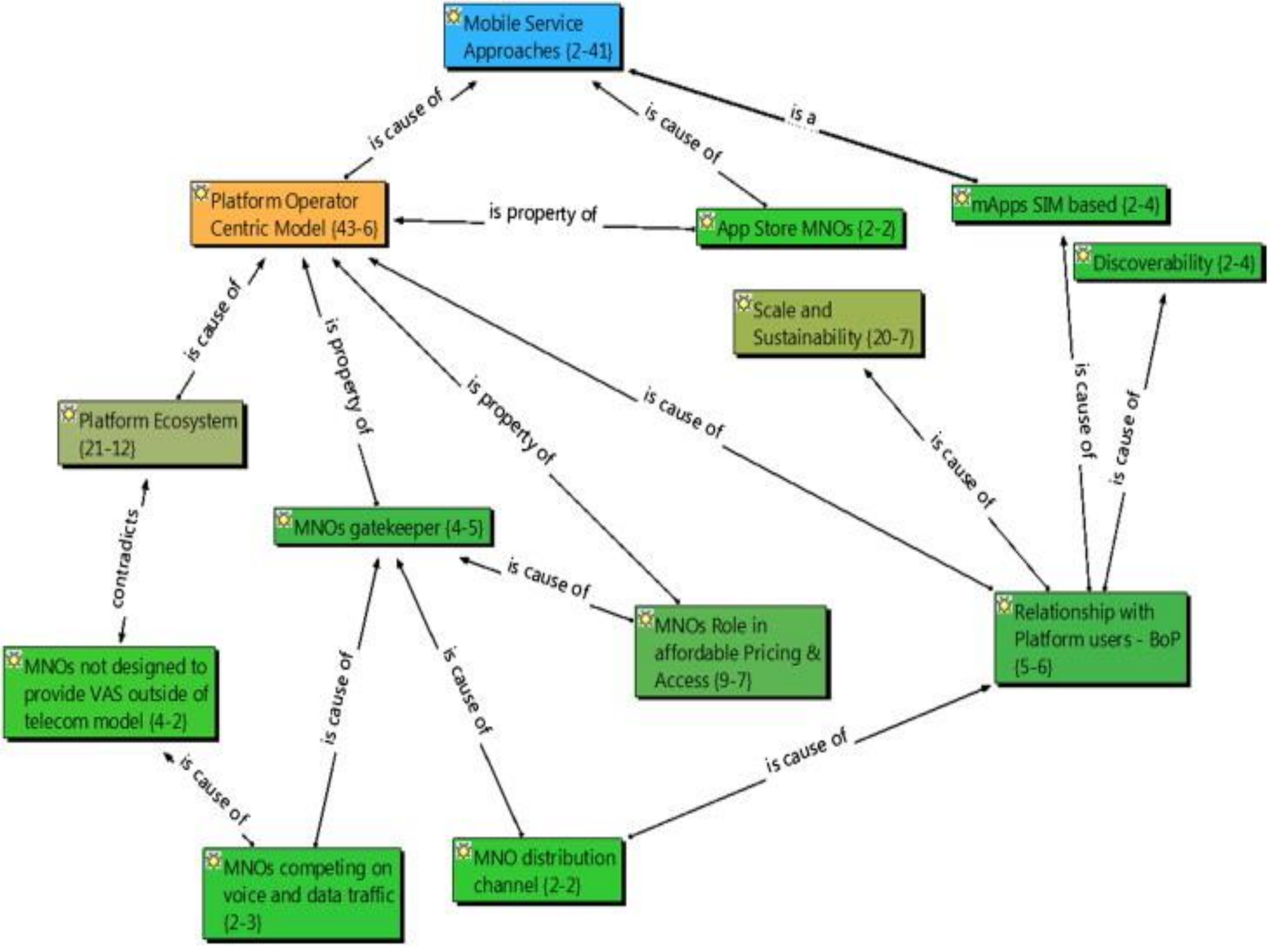
Role in managing externalities

- Possible efficiencies from managing positive and negative platform externalities should be considered.

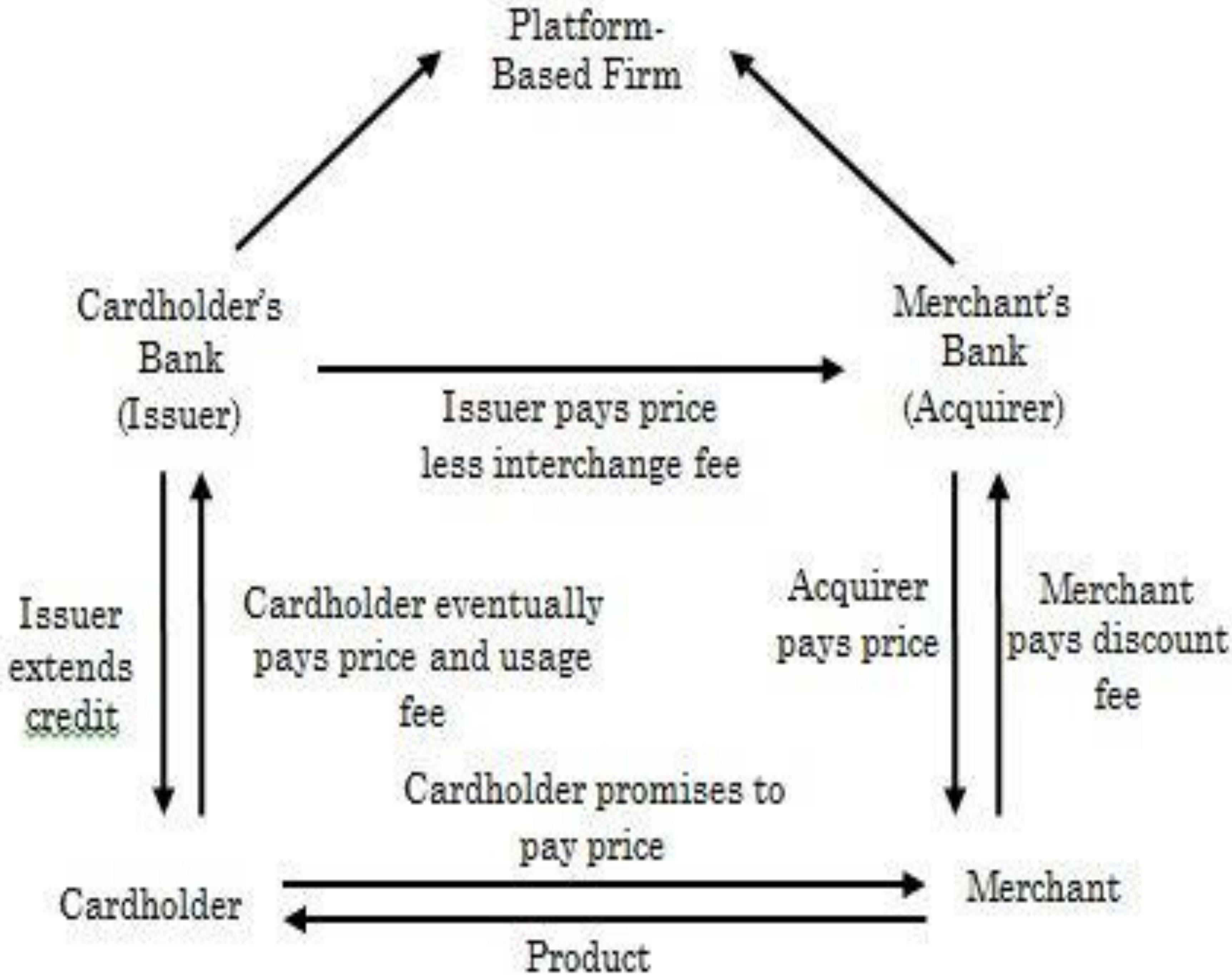
Robustness of standard economic models.

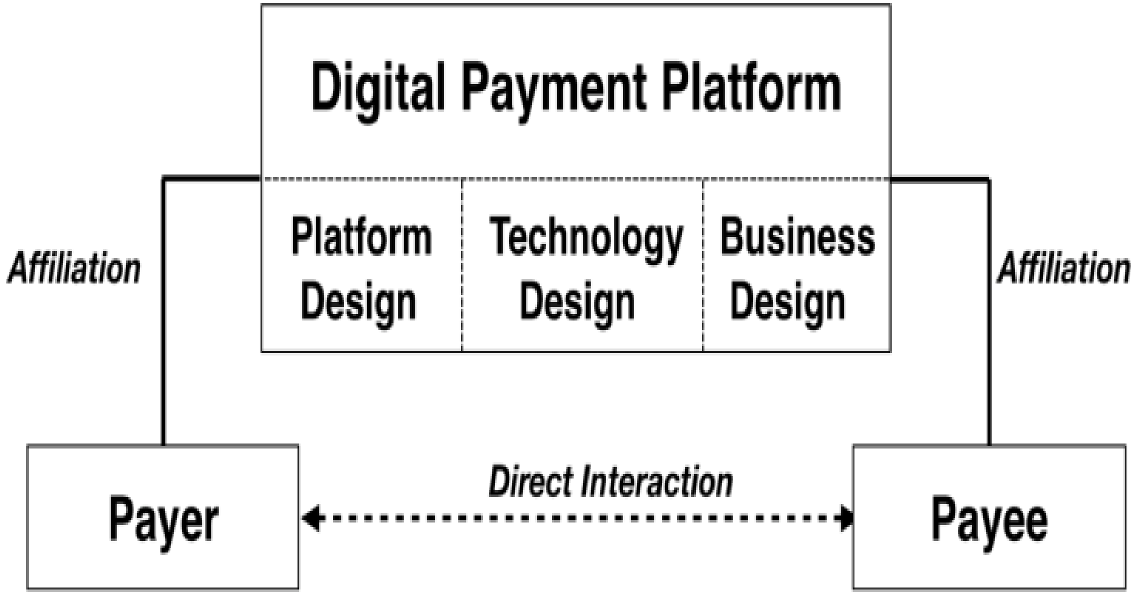
- No reason to believe that the result of economic models that do not consider interdependent demand hold for multisided platforms and results of literature so far show that the results do not in fact hold in important cases.

4) Steps to Platforms



Mobile Service Approaches (2-41)
is cause of
is cause of
is a
Platform Operator Centric Model (43-6)
is property of
App Store MNOs (2-2)
mApps SIM based (2-4)
Discoverability (2-4)
Scale and Sustainability (20-7)
is cause of
is property of
is property of
is cause of
is cause of
is cause of
is cause of
Platform Ecosystem (21-12)
MNOs gatekeeper (4-5)
is cause of
contradicts
MNOs Role in affordable Pricing & Access (9-7)
Relationship with Platform users - BoP (5-6)
MNOs not designed to provide VAS outside of telecom model (4-2)
is cause of
is cause of
is cause of
is cause of
MNOs competing on voice and data traffic (2-3)
MNO distribution channel (2-2)


Platform-
Based Firm
Cardholder's
Bank
(Issuer)
Merchant's
Bank
(Acquirer)
Issuer pays price
less interchange fee
Issuer
extends
credit
Cardholder eventually
pays price and usage
fee
Acquirer
pays price
Merchant
pays discount
fee
Cardholder promises to
pay price
Cardholder
Merchant
Product



Component	Description
Direct Interaction	Classifies a platform as being a Multi-Sided Platform.
Platform Design	Describes open and closed systems, and how complementary products are distributed.
Technology Design	The applied technology based on evolutionary or revolutionary hardware strategies.
Business Design	Market-entry strategies through bundling products and leveraging an installed user base (*envelopment attack*). Alternatively, through Schumpeterian innovation, which is more radical, but rare to achieve.

Types of Legal Tech Startups

Commoditized law solutions via self-service platforms

- Online legal documents
- Smart contracts

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High-tech tools for specific types of legal services

- Document review and e-discovery
- Intellectual property asset management
- Automated document assembly
- Legal contract management
- Augmented intelligence
- Legal research analytics
- Legal practice management

Electronic legal marketplaces, networks and multisided platforms

L2C

- Online listing, reputation, comparison and booking systems
- Legal advice and content portals
- Fixed fee legal service packages for defined consumer problems
- Online reverse auction platforms

L2B / L2L

- Recruiting platforms
- Legal databases
- Insourcing platforms providing contract lawyer staffing solutions
- Legal process outsourcing platforms

Disruptive platforms

Online dispute resolution platforms

Legal artificial intelligence systems

ROSS - IBM Watson's artificial intelligent lawyer

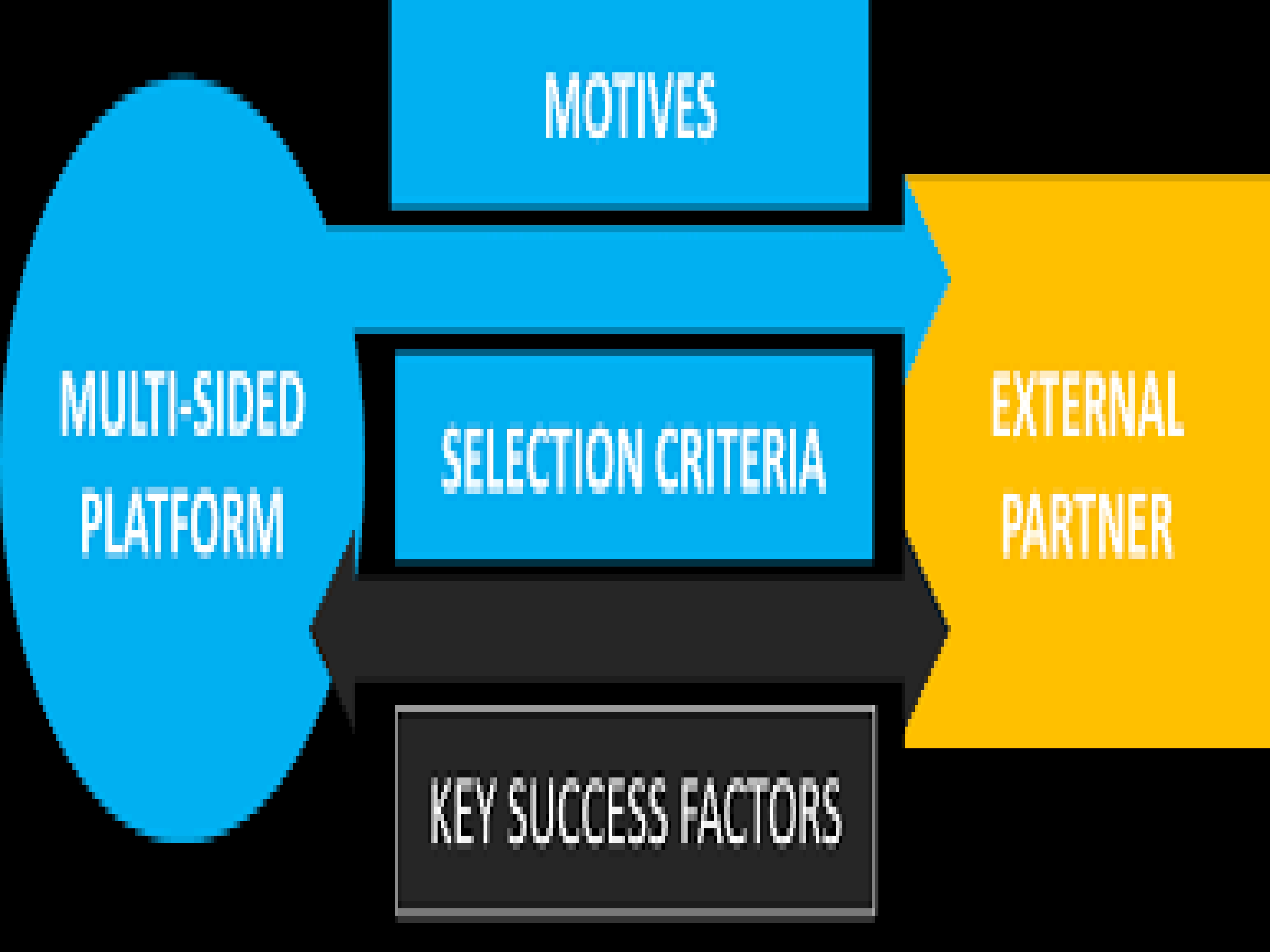
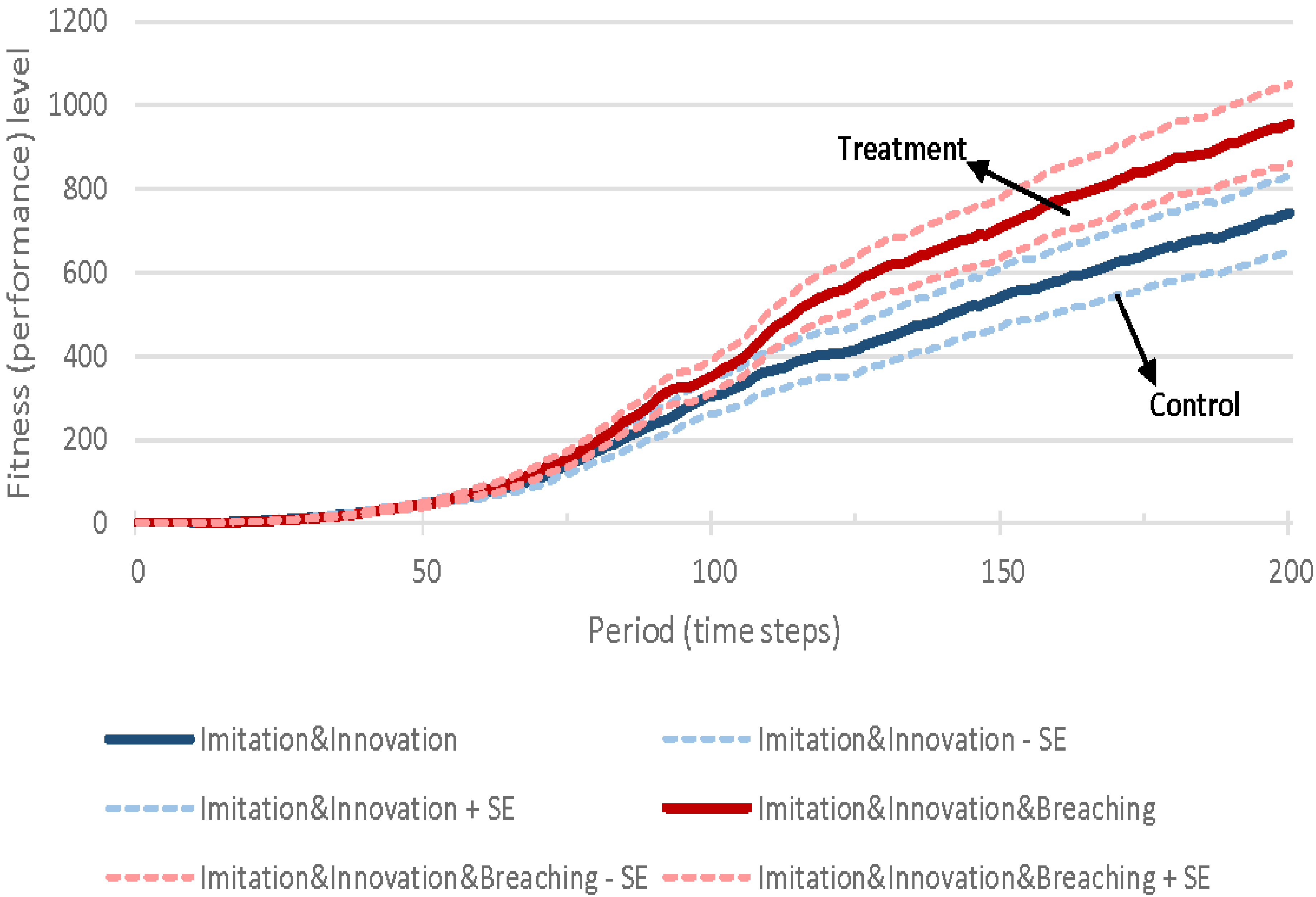
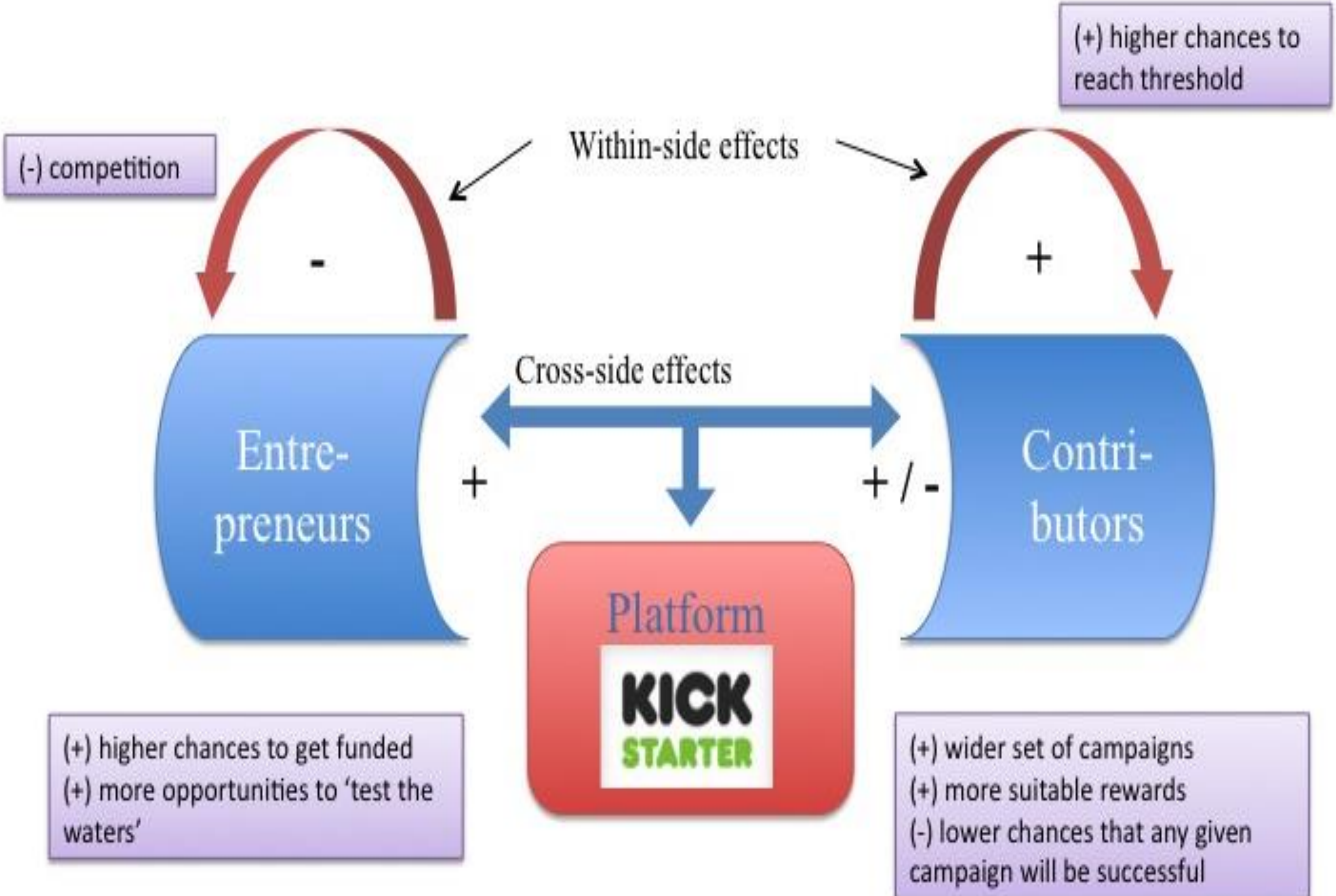

MOTIVES
MULTI-SIDED PLATFORM
SELECTION CRITERIA
EXTERNAL PARTNER
KEY SUCCESS FACTORS

Figure 3: Platform fitness (performance) levels over time

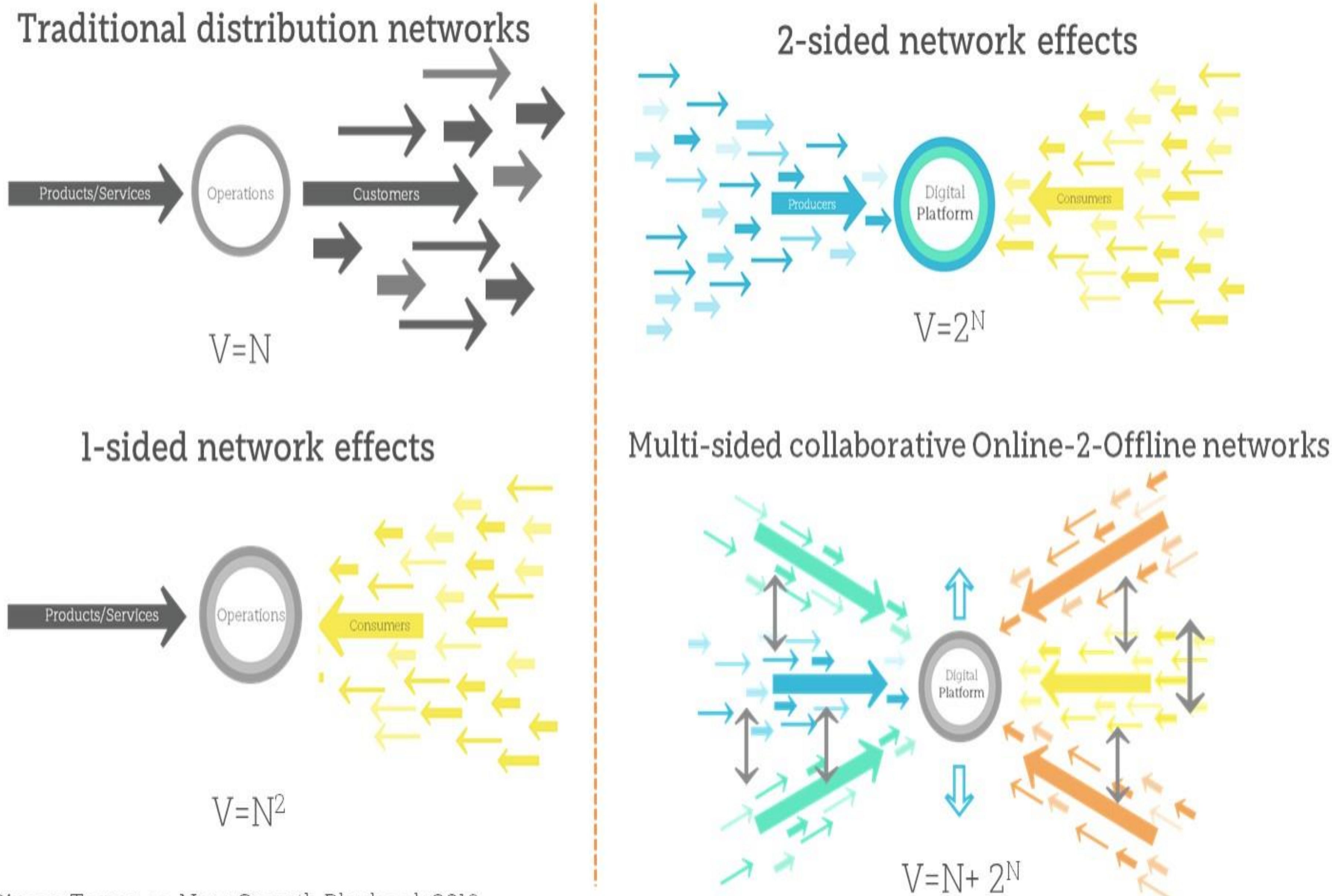


5) Network Effects

… Network ……. multi dimensional effects …



Four main categories of 'network effects'

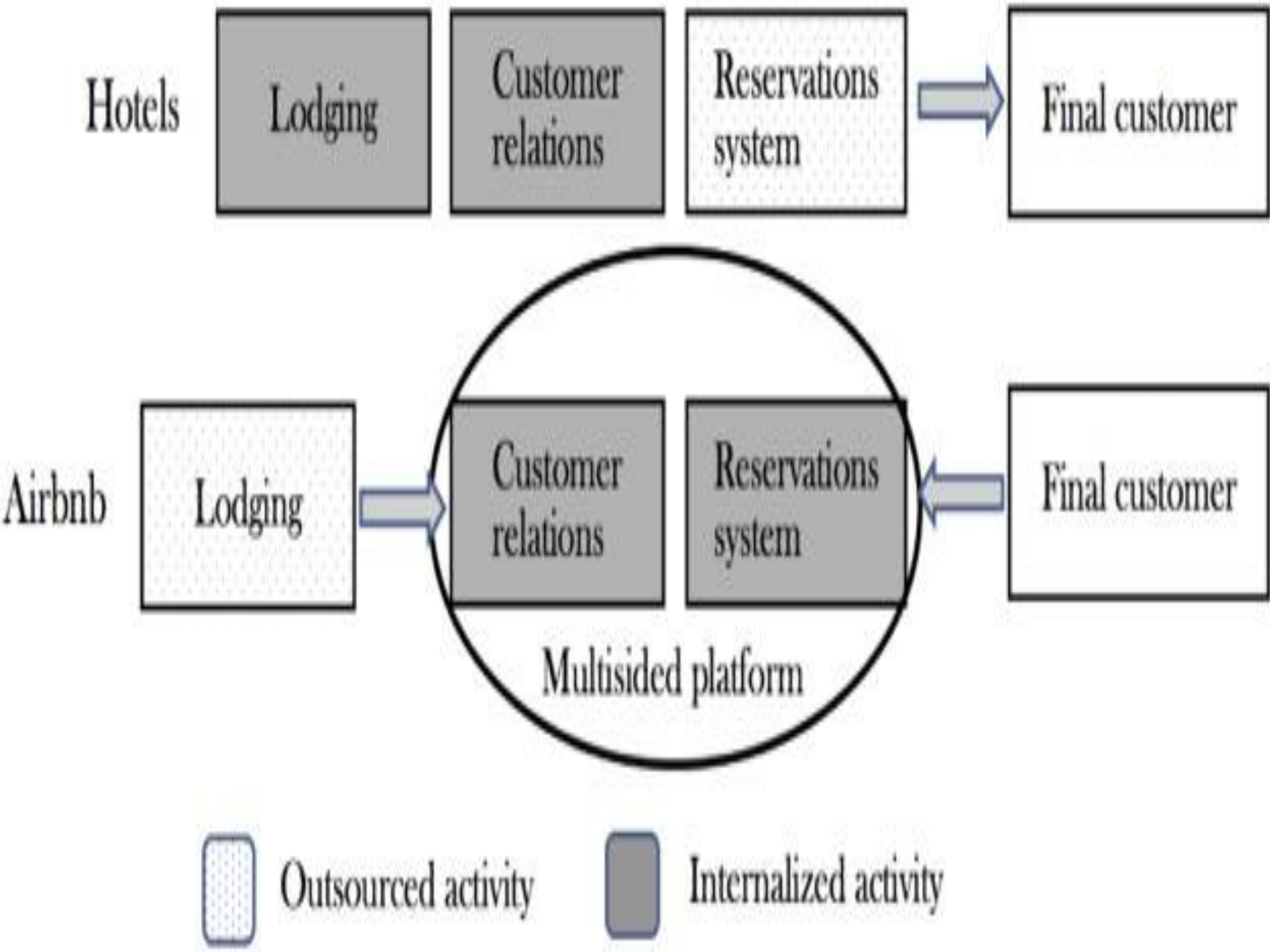


© Simon Torrance, New Growth Playbook 2018

… More effects …

Organizational goal	Description and evidence	
Confrontational strategies to create a coopetitive structure	Implement a divide and conquer strategy Identify potential synergistic networks	"Ali [Alibaba] has always adopted the attack approach to tackle competition, we established Taobao to attack eBay, and we introduced Alimama [an online advertising trade platform for publishers and advertisers] to tackle Baidu.com [the leading Chinese search engine]. Al these subsidiaries are platforms that provide [Alibaba] indirect access to different markets." (Vice-President, Alibaba Group) "Before 2004, we had no intention of joining forces, after 2004 we had a strategy for who we wanted to work with…. Originally it was customers first, shareholders second, workers third. Now it's customers first, partners second, workers third, and shareholders fourth." (Vice-President, Alibaba Group)
IT affordance	**Description and evidence**	
Develop synergies in markets (seller side)	Build trusted, cooperative alliances; build deeper interdependencies	"It is a cooperative yet competitive relationship. Mr Ma, branch president o China Merchants Bank, agrees that the partnership with Alipay is bigge than being competitors." (Executive Vice-President (Strategy), Alipay) "Alibaba has its own logistics system, [links to] many delivery firms, and also a third-party payment service called Zhifubao, these are all the compelling reasons why sellers like to choose Taobao for selling thei goods." (A Taobao.com user)
Access to new products and services (buyer-side)	Expand platform, IT tools, and new markets	"We have proposed five principles which represent five directions in ou development, including e-marketing and business [with Alibaba B2B and Taobao], building trust [TrustPass and evaluation system on Taobao] payment [Alipay], searching [China Yahoo!], and tools [Alisoftware]…. This is because the markets will only get more saturated and the cost o transactions will only go lower, we must have…new innovations to keep our clients happy." (Vice-President, Alibaba Group)
Competitive action	**Description and evidence**	
Open platform with sophisticated supply chain and customer services	Add value to customer services Open and extend operations	"[Having] access to other subsidiaries' databases is a key advantage… I is the difference (between Alimama) and Google…. We can do behavio targeting and content match so different commercials and advertisements are available to different users depending on their profiling." (Senio Manager, Alimama) "…from 2006, we broke up functional units in Alibaba to form subsidiaries that operate freely with their clients." (Vice-President, Alibaba Group)

6) Process


Hotels
Lodging
Customer relations
Reservations system
Final customer
Airbnb
Lodging
Customer relations
Reservations system
Final customer
Multisided platform
Outsourced activity
Internalized activity

WHY NOW?

- AI technology has seen significant advances in the last 2 years, creating the affordability and availability to become relevant to more new applications.
- Users are familiar with sophisticated apps that connect participants in multi-sided markets that provide them with simple, streamlined, and easy-to-use solutions (Amazon, Airbnb, Uber, OpenTable, Expedia etc.).
- Large corporate bar chains (e.g., TGIF, BJ's, Chili's, Lazy Dog) are losing relevance in the marketplace, but concept and neighborhood bars need cost-effective marketing platforms to connect with their customers.
- The liquor and beer industry has invested millions of $ in 2017 for digital data points as an important step to approach digital engagement. Budweiser for example had the first time data points included in their 2018 business plan.

 COPYRIGHT 2018

Revenue Models

- Multisided Platform - Global Personalized Academy dual-diploma: Sold on a per-student, per-semester course basis. Students will need 12 semester courses over three years to graduate. Transcript review is sold separately on a per-student basis with the costs spread over three years.

- Blended Schools Network – All Inclusive Subscription: Sold on a per-student basis. Membership includes access to full digital curriculum catalog and professional development resources. Additional f2f training is available as an upsell.

- Blended Schools Network – Curriculum: Courses sold on a per-enrollment basis packaged with professional development training. Also sold on a per-seat basis when districts require.

- Learning Institute – Enrollments: Tuition is per-student enrollment, per semester.

Questions for discussion

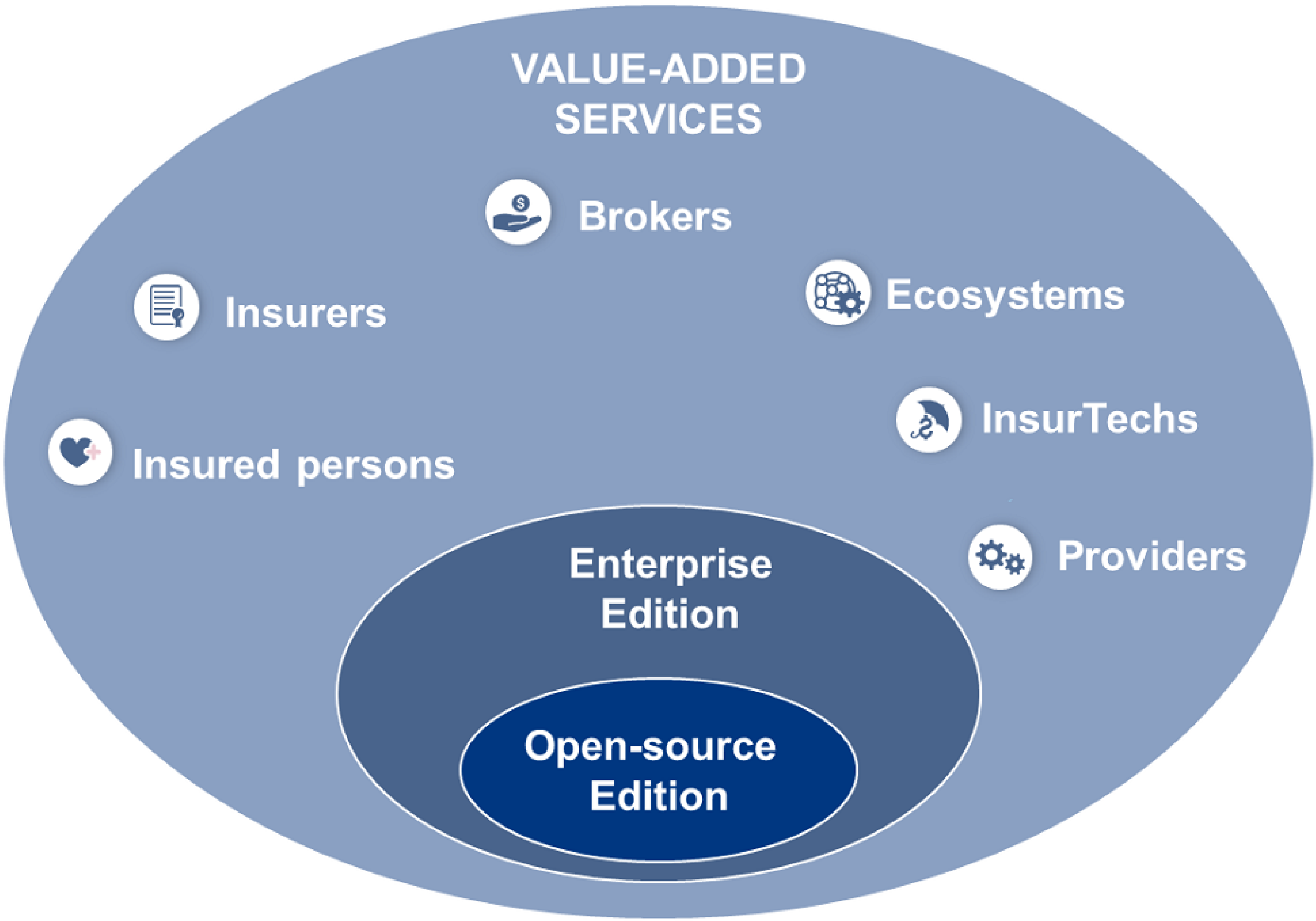
- Who do you think are the primary consumer of the loss data in your country?
- How do you reach them?
- What are the major challenges of information dissemination in your country?

The Shift to Big Data: Multi-sided Business Platforms

CREATED USING POWTOON

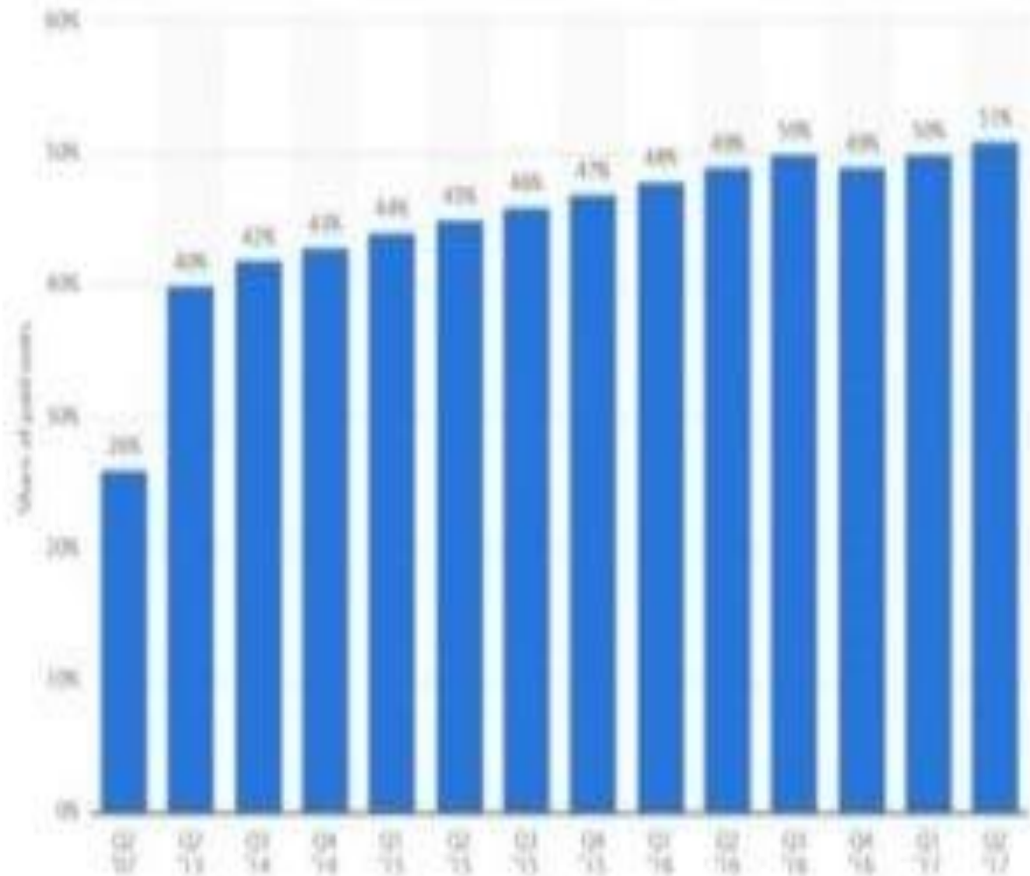

COMPETITION

VISION: INSURANCE ECOSYSTEM



Please note: This is a graphic representation. The indicated size, position & relationship of topics is for conceptual purposes only.

Percentage of paid units sold by third-party sellers on Amazon platform as of 2nd quarter 2017



ABOUT THIS STATISTIC

This statistic gives information on the third-party seller share of the Amazon platform as of the second quarter of 2017, based on paid units. As of the last reported quarter, 51 percent of paid units were sold by third-party sellers. In 2016, Amazon generated 22.99 billion U.S. dollars in third-party seller service revenues, up from 16.09 billion U.S. dollars in the previous year. Seller-service revenues account for the second-largest revenue segment of the online retail platform, after retail product sales and ahead of Amazon Web Service revenues.

SPECIAL FUNCTIONS

Download as ...	Options
Graphic (PNG)	Settings
Excel (XLS)	Print

UBER

MasterCard

Microsoft

Elance
work differently

free

Sotheby's

WeChat

M-PESA

News Corporation

BlaBlaCar

London
Stock Exchange

PayPal

vodafone

VISA

airbnb

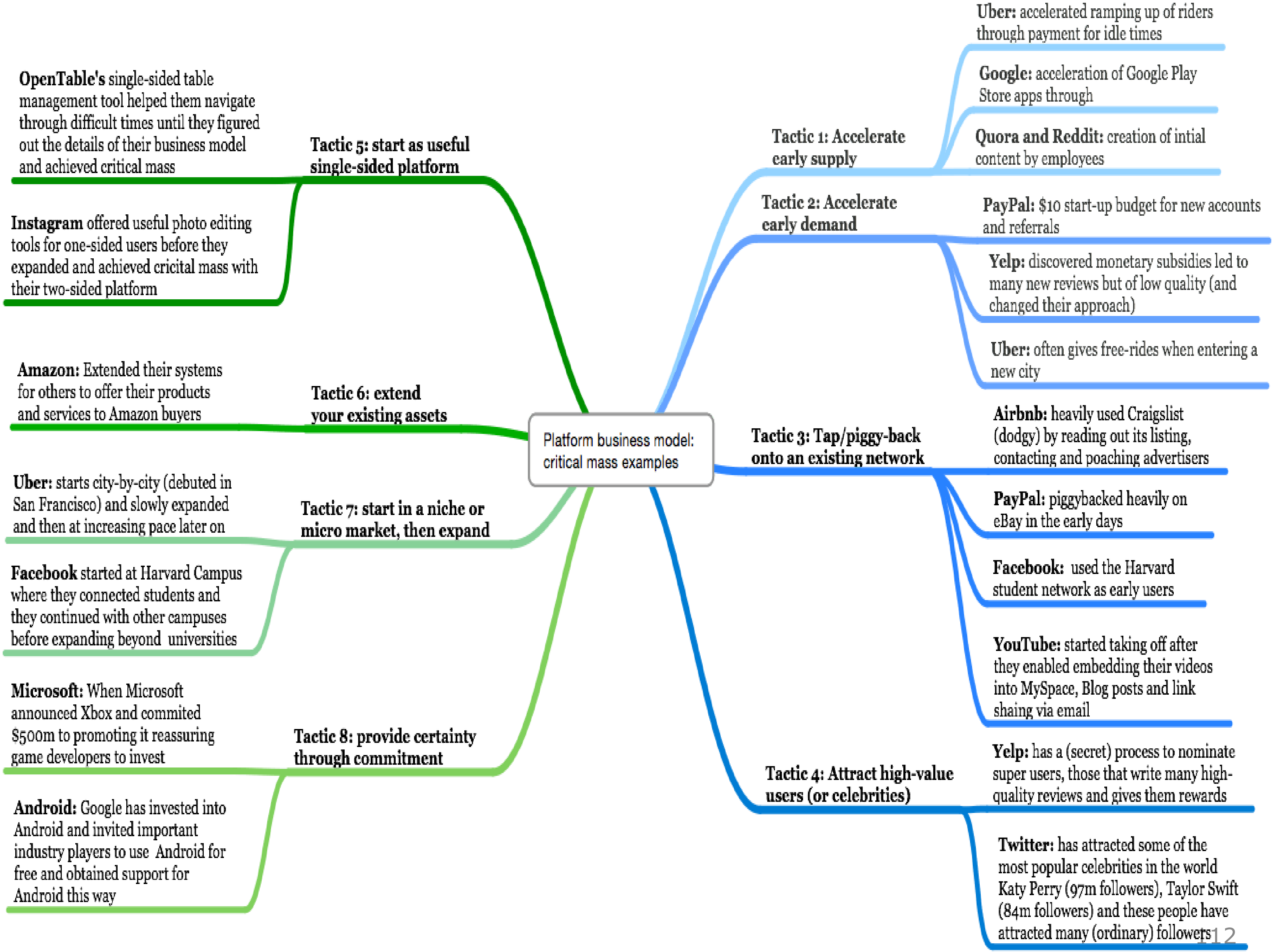
Google

Alibaba.com

CB

flipkart.com

7) Examples



Platform business model: critical mass examples
Tactic 1: Accelerate early supply
Uber: accelerated ramping up of riders through payment for idle times
Google: acceleration of Google Play Store apps through
Quora and Reddit: creation of intial content by employees
Tactic 2: Accelerate early demand
PayPal: $10 start-up budget for new accounts and referrals
Yelp: discovered monetary subsidies led to many new reviews but of low quality (and changed their approach)
Uber: often gives free-rides when entering a new city
Tactic 3: Tap/piggy-back onto an existing network
Airbnb: heavily used Craigslist (dodgy) by reading out its listing, contacting and poaching advertisers
PayPal: piggybacked heavily on eBay in the early days
Facebook: used the Harvard student network as early users
YouTube: started taking off after they enabled embedding their videos into MySpace, Blog posts and link shaing via email
Tactic 4: Attract high-value users (or celebrities)
Yelp: has a (secret) process to nominate super users, those that write many high-quality reviews and gives them rewards
Twitter: has attracted some of the most popular celebrities in the world Katy Perry (97m followers), Taylor Swift (84m followers) and these people have attracted many (ordinary) followers
Tactic 5: start as useful single-sided platform
OpenTable's single-sided table management tool helped them navigate through difficult times until they figured out the details of their business model and achieved critical mass
Instagram offered useful photo editing tools for one-sided users before they expanded and achieved cricital mass with their two-sided platform
Tactic 6: extend your existing assets
Amazon: Extended their systems for others to offer their products and services to Amazon buyers
Tactic 7: start in a niche or micro market, then expand
Uber: starts city-by-city (debuted in San Francisco) and slowly expanded and then at increasing pace later on
Facebook started at Harvard Campus where they connected students and they continued with other campuses before expanding beyond universities
Tactic 8: provide certainty through commitment
Microsoft: When Microsoft announced Xbox and commited $500m to promoting it reassuring game developers to invest
Android: Google has invested into Android and invited important industry players to use Android for free and obtained support for Android this way

Examples (positive effects of more supply side actors to the demand side actors):

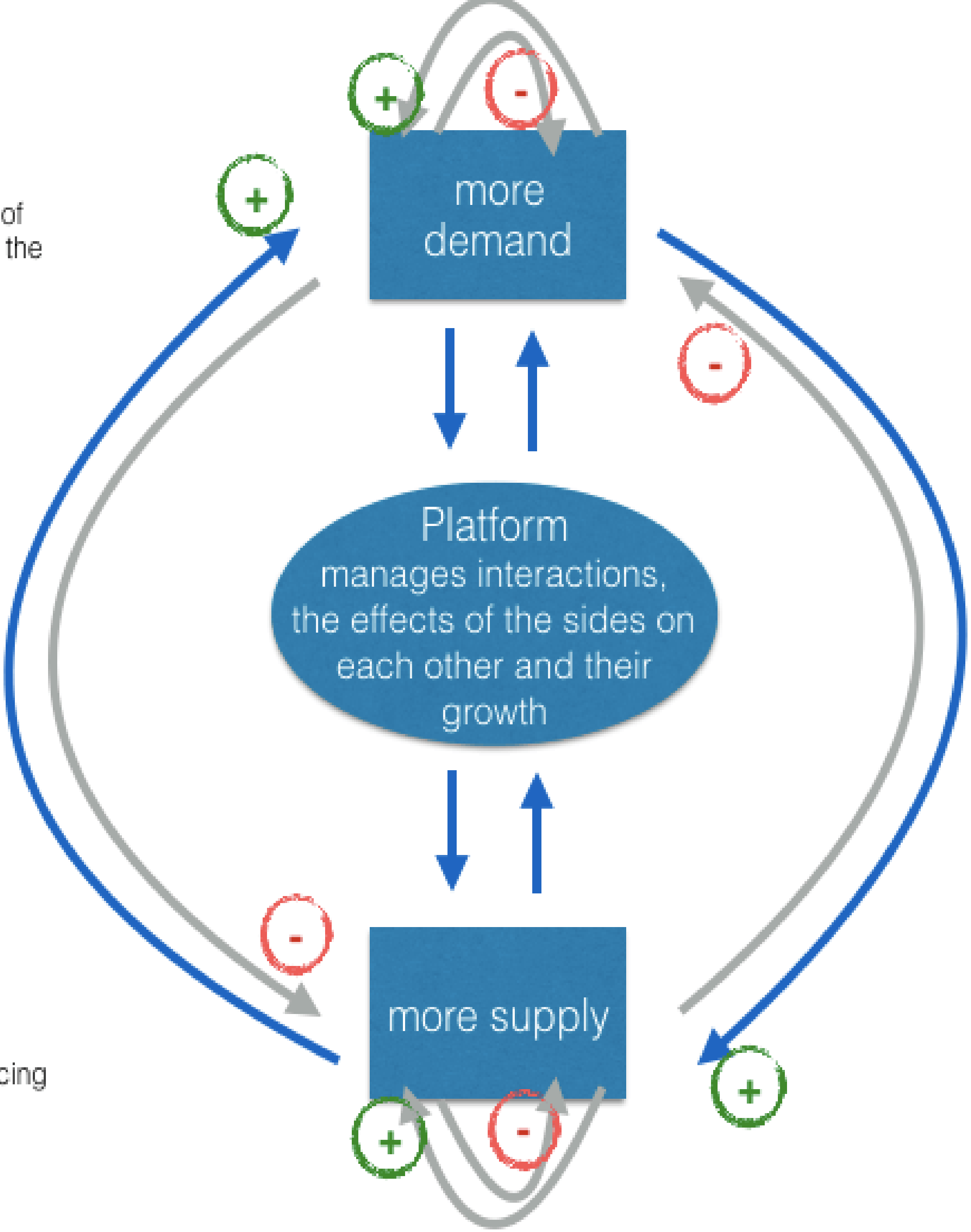
Uber (more drivers):
- lower prices*
- faster pick-ups
- wider geographical coverage

Airbnb (more hosts):
- lower prices
- more choice
- wider geographical coverage

Ebay (more sellers):
- lower prices
- more choice

Paypal (more merchants):
- lower transaction costs
- increasing convenience

* most notable in surge pricing



Examples (positive effects of more demands side actors to the supply side actors):

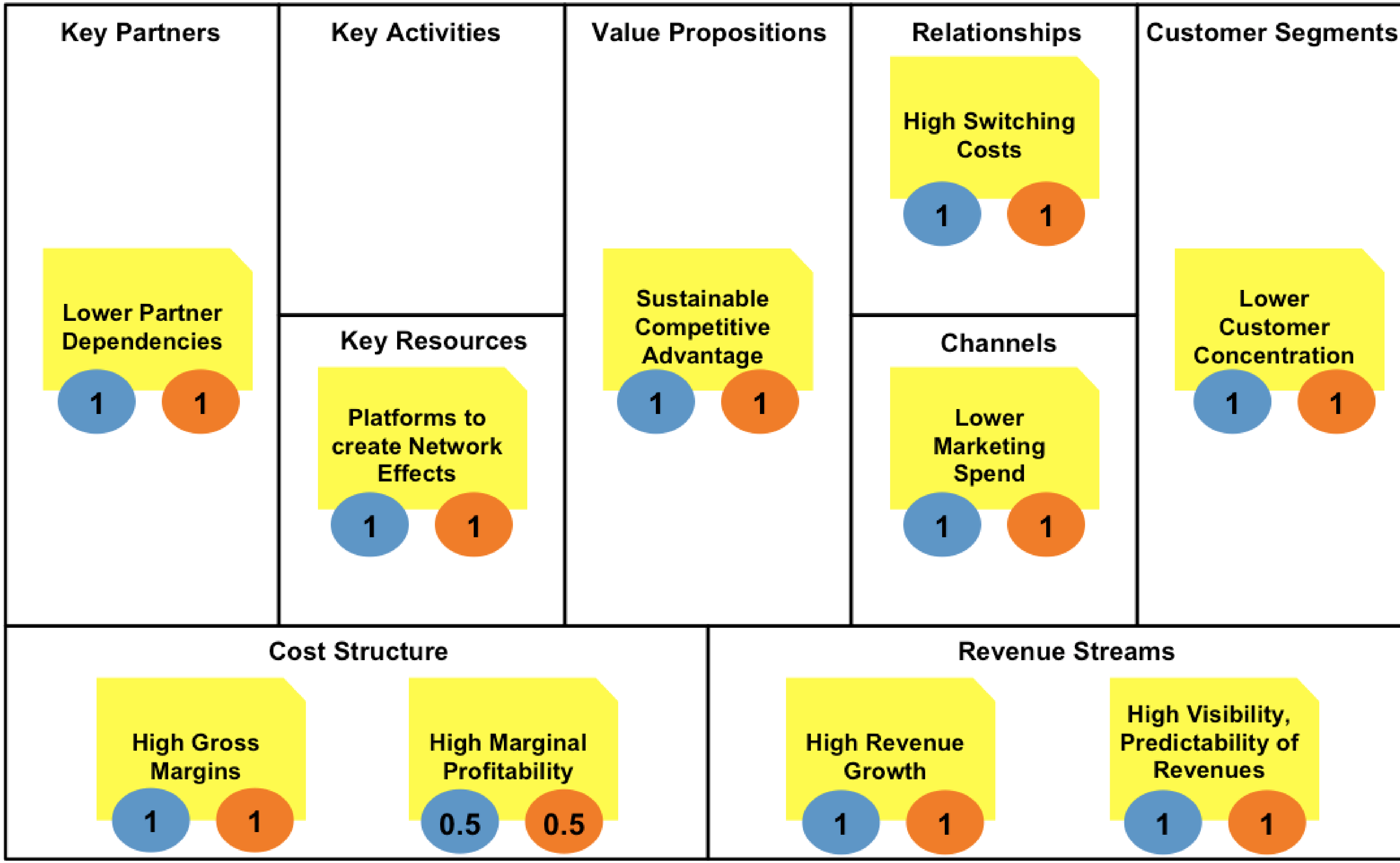
Uber (more passengers):
- less idle time for drivers

Airbnb (more guests):
- higher utilisation

Ebay (more buyers):
- higher revenue & margins
- Economies of scale

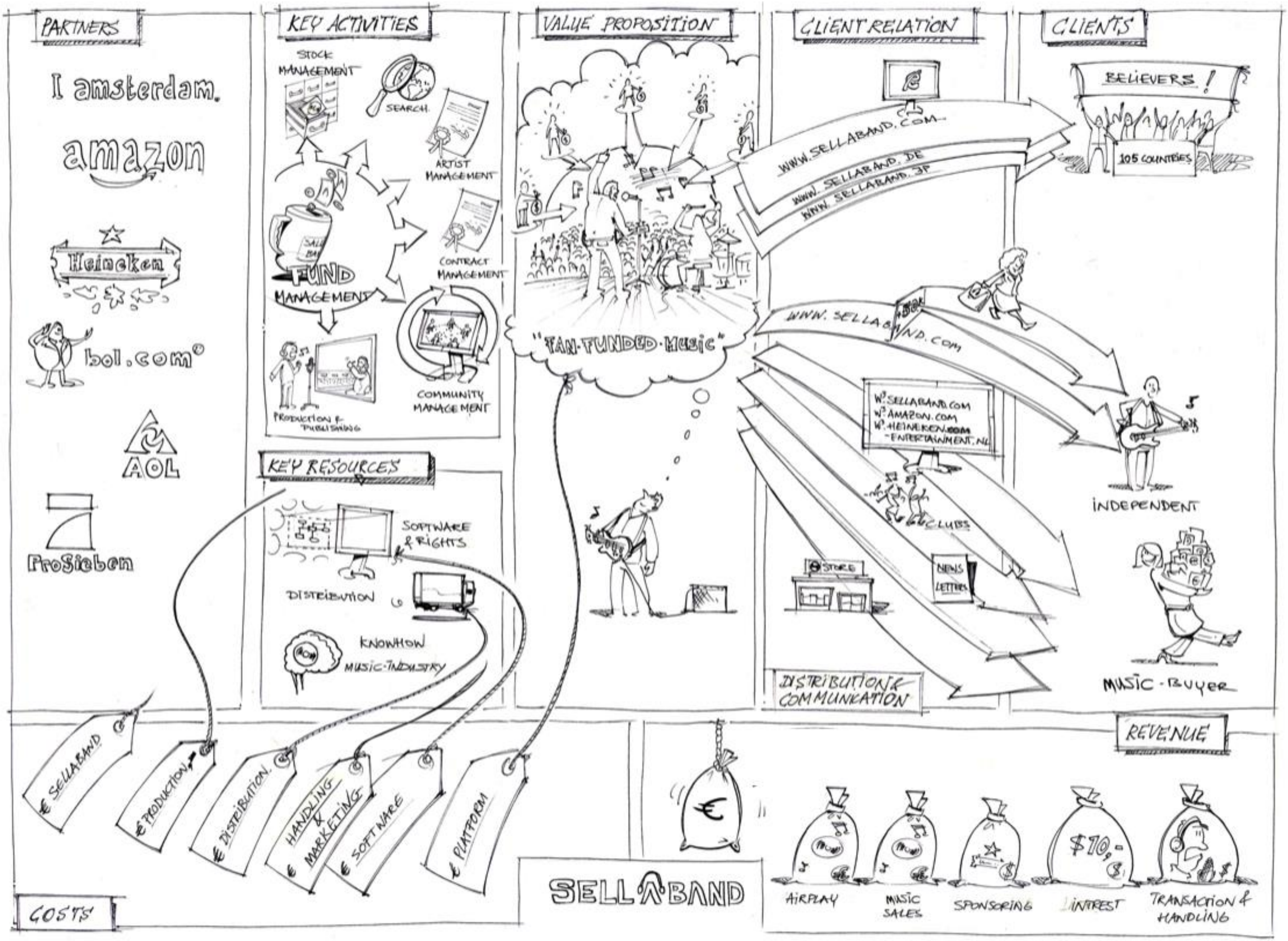
Paypal (more users):
- more sales
- lower unit transaction costs

Comparing Facebook and Google Business Models using Gurley's Test

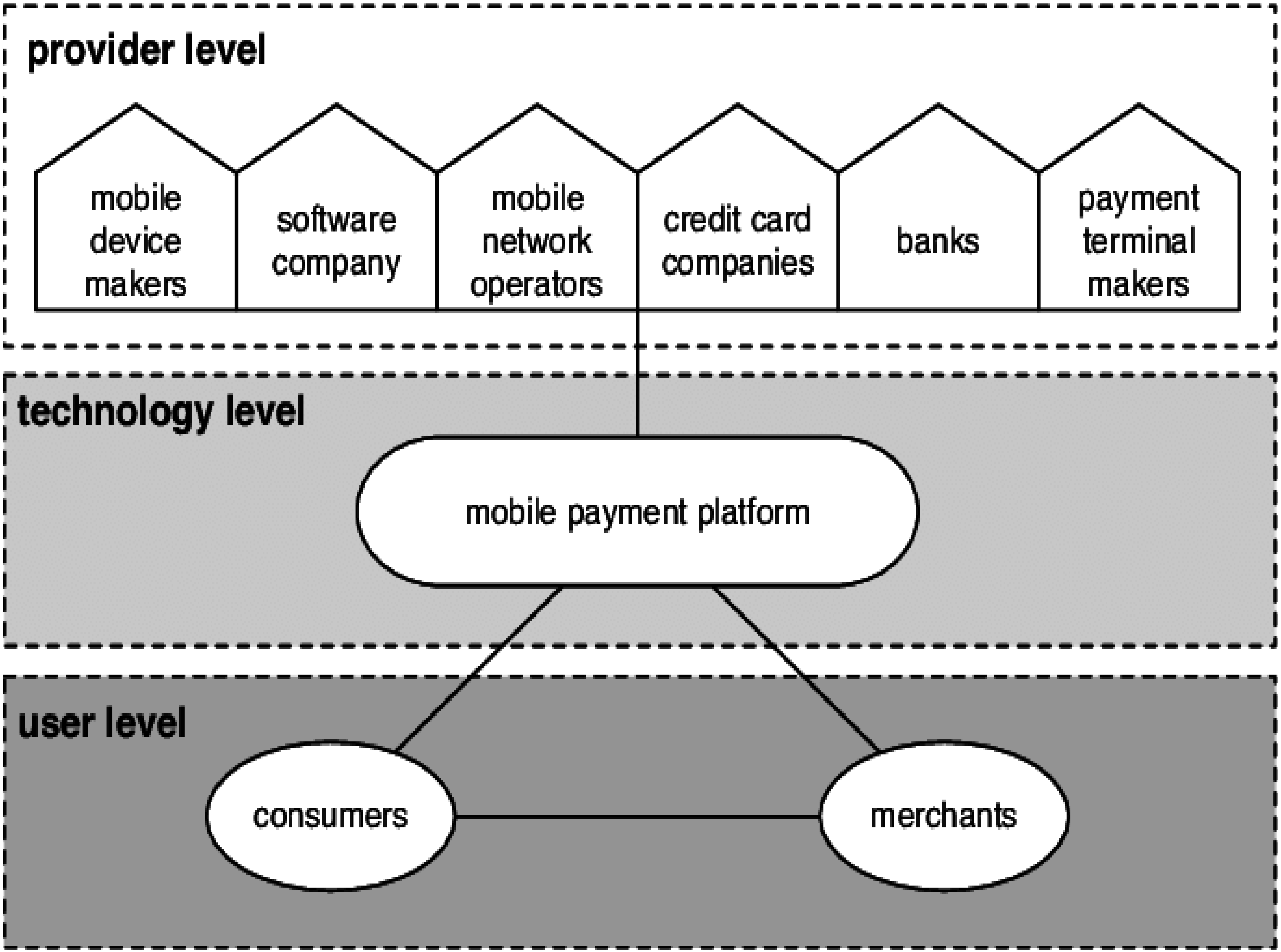


www.businessmodelgeneration.com

TOTAL SCORES Facebook: 9.5 Google: 9.5

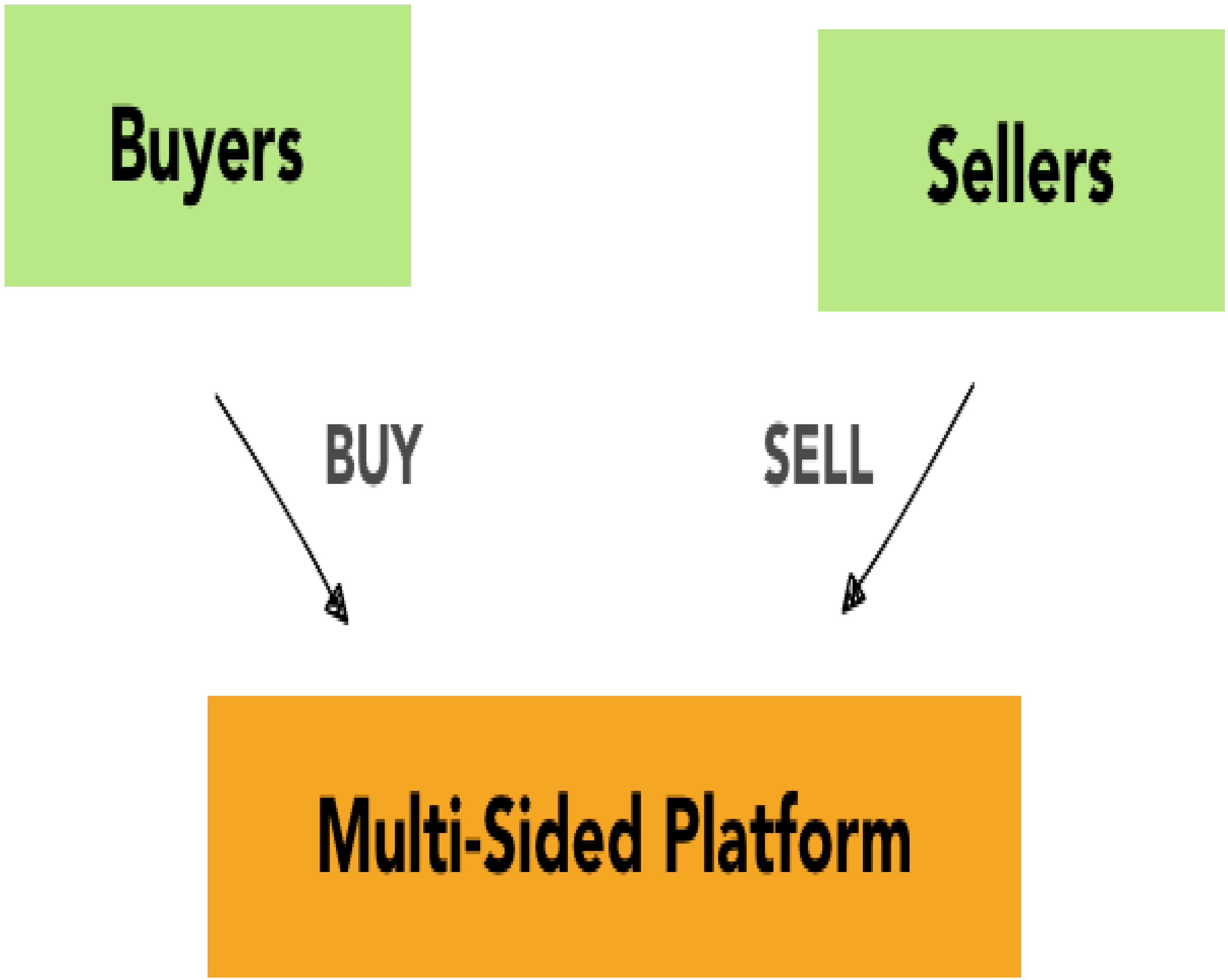


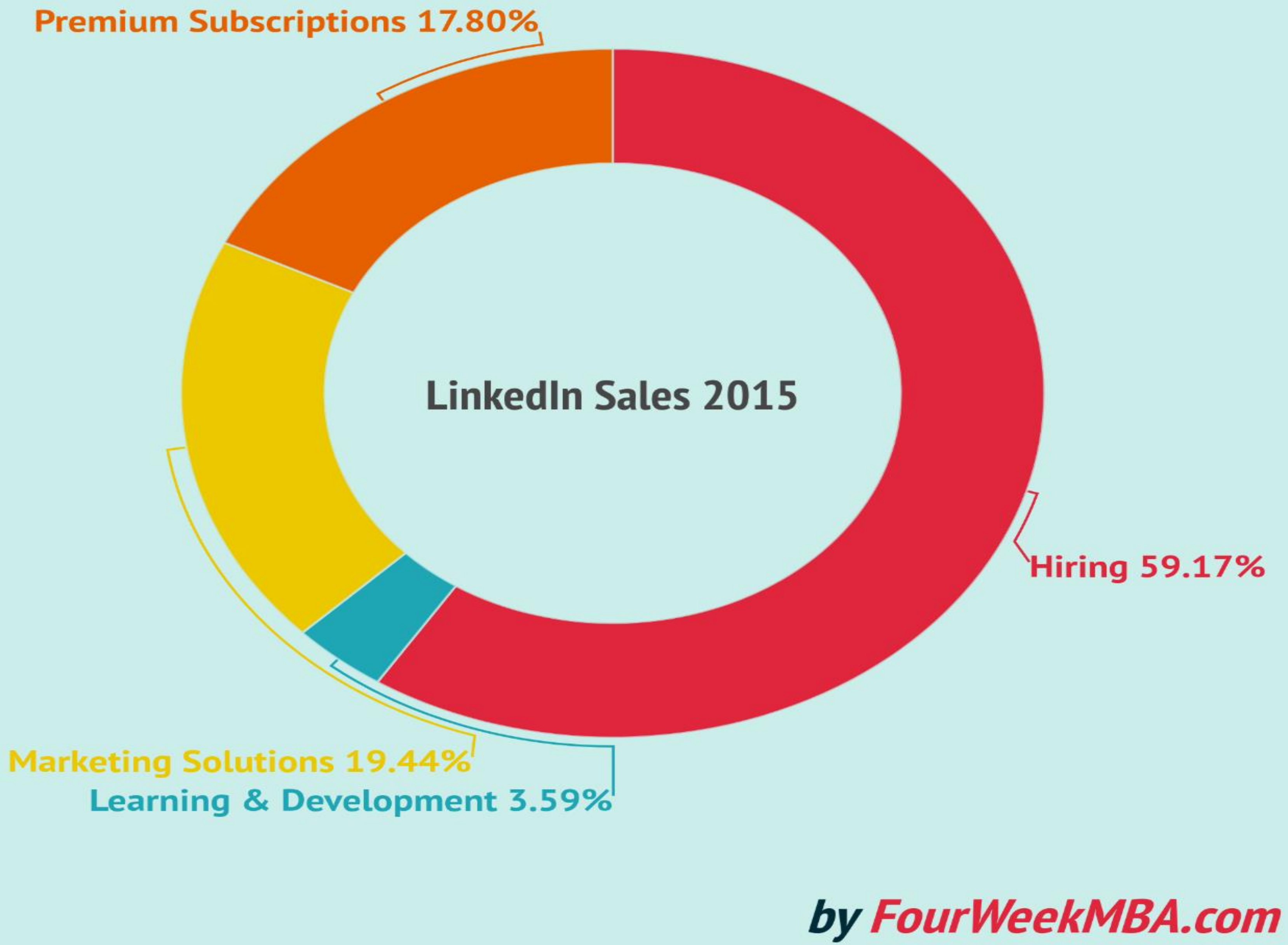
OFFERED TO SELLABAND BY JAM, BUSINESS MODELS INC. AND PWC


provider level
mobile device makers
software company
mobile network operators
credit card companies
banks
payment terminal makers
technology level
mobile payment platform
user level
consumers
merchants

Airport			
Two-sided	Main	Core	Subsidy (Passengers) /Revenue side (Airlines)
Multi-sided	Complimentary	Periphery	Revenue side (Merchants)
Facebook			
One-sided	Main	Core	Subsidy side (Users)
Two-sided	Complimentary	Periphery	Revenue side (Advertisers)
Multi-sided	Complimentary	Periphery	Revenue side (Developers)

Table 4. Summary of the business model evolution of the three analysed cases


Buyers
Sellers
BUY
SELL
Multi-Sided Platform

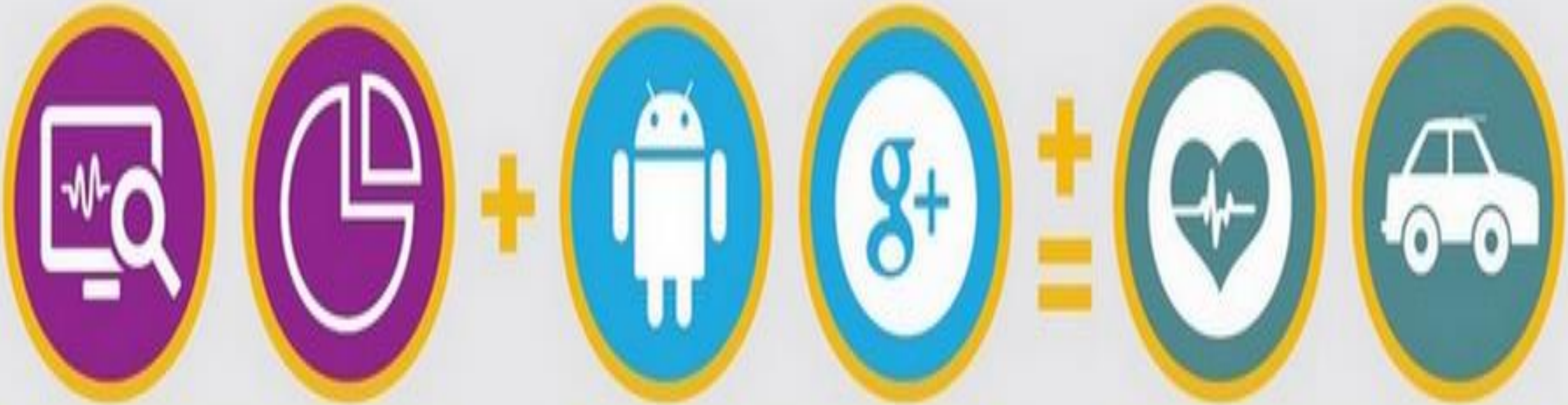

Premium Subscriptions 17.80%
LinkedIn Sales 2015
Hiring 59.17%
Marketing Solutions 19.44%
Learning & Development 3.59%
by FourWeekMBA.com

MULTISIDED PLATFORM
Advertising-supported media (news over-the-air TV networks, Facebook,
Alibaba.com, eBay, Rakuten
Payment systems (American Express, Vi[illegible]are)
Video game consoles
PC operating systems (Windo[illegible] M
Ticketmaster

LinkedIn – World's Largest Professional Network
Key Partners
Equinix (for data center facilities)
Content Providers
Key Activities
Platform Development
Key Resources
LinkedIn Platform
Value Propositions
Manage Professional Identity and Build Professional Network
Identify and Reach the Right Talent
Reach the Target Audience
Access to LinkedIn Database Content via APIs and Widgets
Relationships
Same-side Network Effects
Cross-side Network Effects
Channels
LinkedIn Website, Mobile Apps
Field Sales
Customer Segments
Internet Users
Recruiters
Advertisers and Marketers
Developers
Cost Structure
Web Hosting costs
Marketing and Sales
Product Development
General and Administrative
Revenue Streams
Free Offerings and Premium Subscriptions
Hiring Solutions
Marketing Solutions
www.businessmodelgeneration.com

Technologies	Company Enabled	Why Customers Love Them
	LendingClub Founded 2007, Valuation = $7B	Borrowers get better rates, Investors get better returns
	UBER Founded 2009, Valuation = $40B	Passengers get better, cheaper rides, Drivers make more money
	WhatsApp Founded 2009, Valuation = $19B	Better way to communicate, share text, images, audio, location ....

GOOGLE'S COMPLEMENTARY GROWTH



Core Business
(core profits to protect: search; data sales)

Established Complementary Markets
(subsidized, or free to drive profits back to core business)

New Complementary Markets
(cross industry boundaries in health and home/auto insurance from investments and partnerships)

Complementary markets drive growth and profits back to the core businesses

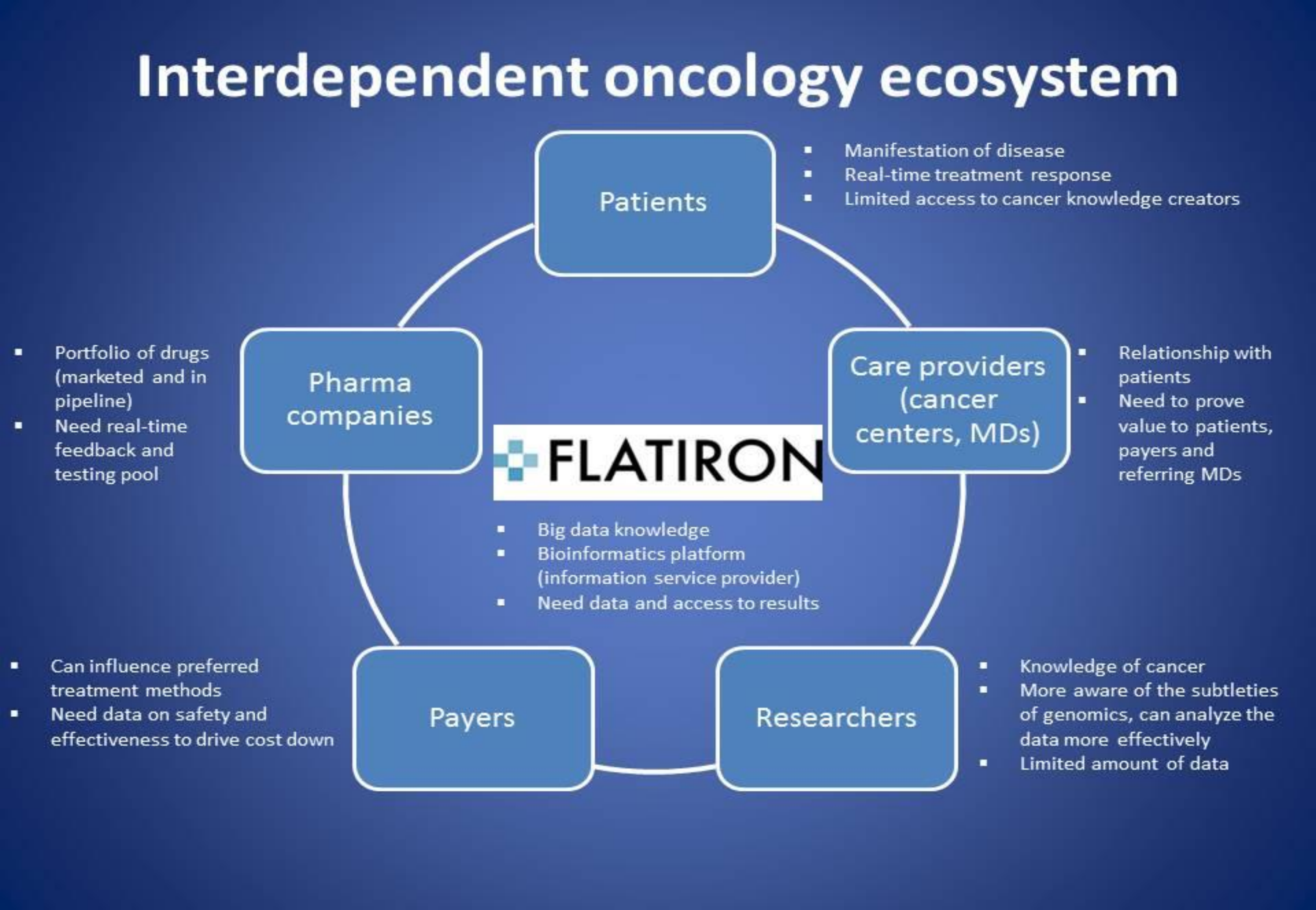
$

Costco
Walmart
Zappos
Amazon
Rakuten
eBay
Taobao
Pure Reseller
Pure Multisided Platform

Where we are going

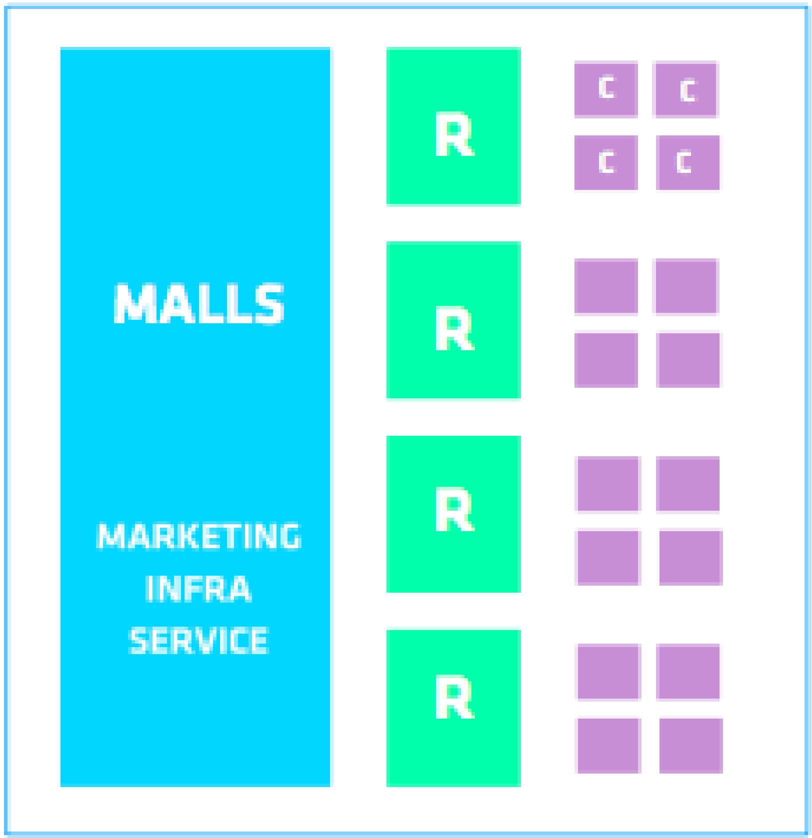
TODAY	TOMORROW	FUTURE (2016/17)
Limited domestic business, primarily Pennsylvania region	Broader domestic penetration and introduction into the international space, starting in China	Multisided platform providing international students with dual-diploma and providing U.S. universities with qualified students

… vital … to …


Interdependent oncology ecosystem
Patients
Manifestation of disease
Real-time treatment response
Limited access to cancer knowledge creators
Pharma companies
Portfolio of drugs (marketed and in pipeline)
Need real-time feedback and testing pool
Care providers (cancer centers, MDs)
Relationship with patients
Need to prove value to patients, payers and referring MDs
FLATIRON
Big data knowledge
Bioinformatics platform (information service provider)
Need data and access to results
Payers
Can influence preferred treatment methods
Need data on safety and effectiveness to drive cost down
Researchers
Knowledge of cancer
More aware of the subtleties of genomics, can analyze the data more effectively
Limited amount of data

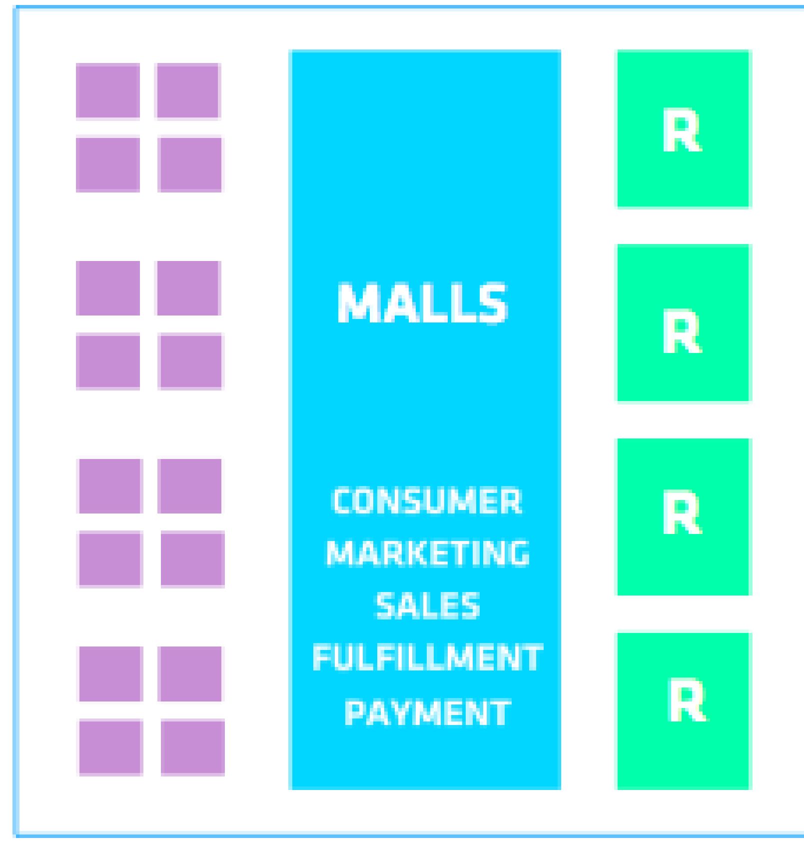
THE BUSINESS OF CONNECTING CONSUMERS & RETAILERS

TRADITIONAL MODEL



REAL ESTATE PLATFORM

FIGITAL MODEL



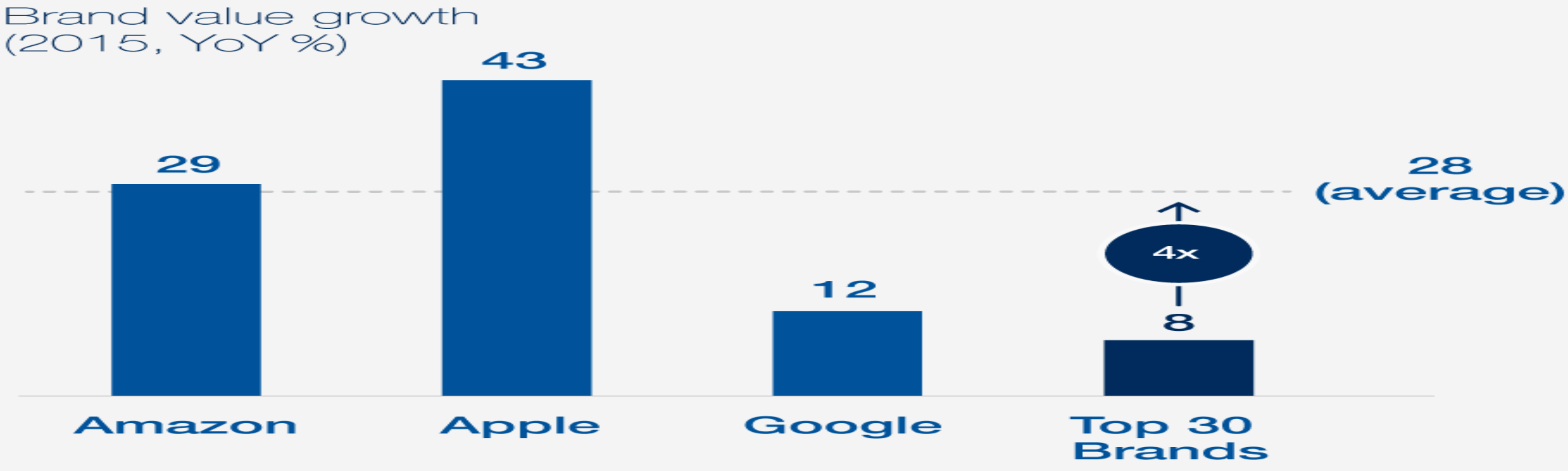
MULTISIDED PLATFORM

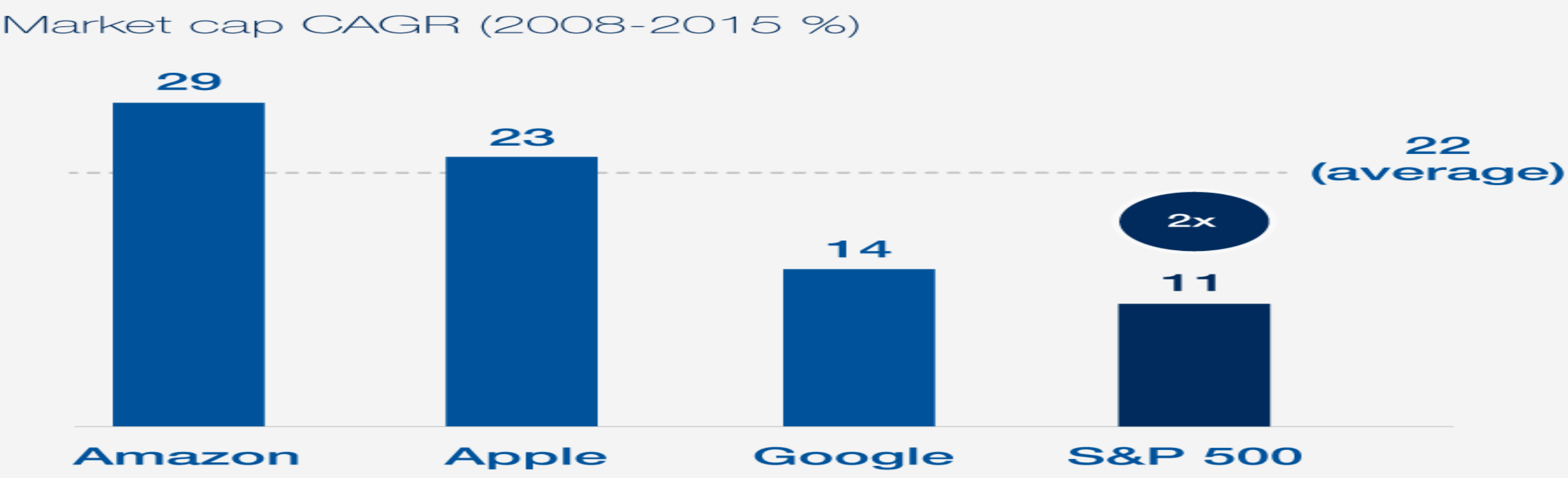
MALLS
CONSUMERS
RETAILERS

8) Statistics

Social Networking	Spring-14	Fall-14
Which of the following do you use?		
Instagram	69%	76%
Twitter	63%	59%
Facebook	72%	45%
Pinterest	21%	22%
Tumblr	21%	21%
Other	30%	21%
Google+	29%	12%
Don't Use Social Networks	n/a	8%
Reddit	7%	7%

Why are platforms noteworthy?





Source: Interbrand, Global Brand Rankings 2015; S&P Capital IQ for Apple, Amazon and Google (Alphabet in 2015); MarketCapitalizations.com for S&P 500 Index, Accenture analysis

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