

MAI 622: AI Entrepreneurship

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MAI 622: AI Entrepreneurship - Module 2

Business Modeling

Module 2 Contents



- The Business Model Canvas
- Business Model Patterns
- The Mission Statement

Learning Objectives



After attending this module, studying the suggested readings, and watching proposed videos students should be able to:

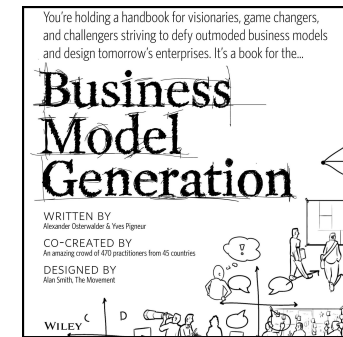
- Understand the concept of **Business Model** and its **key constituents**.
- Recognize and apply the **Business Model Canvas** methodology to develop a business model.
- Understand, recognize and explain the concepts of **multi-sided markets, platforms, SaaS, the Gig economy** and the **"attention" economy**, and **network effects**.
- Understand and explain a wide range of **Business Model Patterns** and explore how they apply in specific **case studies**.
- Understand **how to prepare a mission statement** for your company and **create meaningful mission statements**.

Module 2 Reading List



- **Business Model Generation**, Alexander Osterwalder and Yves Pigneur, Wiley 2010.
- **The Startup Scorecard** for product opportunity evaluation.
 - ▶ <http://nealcabbage.com/framework/opportunity-heuristics/>
- **The mission statement: The basis for startups' strategic planning**
 - ▶ <https://learn.marsdd.com/mars-library/the-mission-statement-the-basis-for-startups-strategic-planning/>
- **How to define a mission and vision for your startup.** 2014
 - ▶ <https://ideamensch.com/how-to-define-a-mission-and-vision-for-your-startup/>
- **30 Inspiring Billion-Dollar Startup Company Mission Statements** by Larry Kim.
 - ▶ <https://www.inc.com/larry-kim/30-inspiring-billion-dollar-startup-company-mission-statements.html>

Reference Readings



Online Videos & Courses



- **From Business Ideas to Business Models, Strategyzer**
 - ▶ <https://youtu.be/wwShFsSFb-Y>
- **Business Model Canvas, Strategyzer:**
 - ▶ <https://youtu.be/wlKP-BaC0jA>
- **Is there any space for more e-commerce or gig-economy startups?** James Mi, Founding Lightspeed China Partners (LCP), (2018).
 - ▶ <https://youtu.be/XGVUEjWJTEM>
- **Interview of Cindy Mi, founder and CEO of VIPKID, with the Y Combinator** (2019)
 - ▶ <https://www.youtube.com/watch?v=EoffBerre24>

Online Videos & Courses



- From Business Ideas to Business Models, Strategyzer:
 - ▶ <https://youtu.be/wwShFsSFb-Y>
- Business Model Canvas, Strategyzer:
 - ▶ <https://youtu.be/wlKP-BaC0jA>
- Business Model Canvas explained, Strategyzer:
 - ▶ <https://youtu.be/QoAOzMTLP5s>
- The Business Model Canvas - 9 Steps to Creating a Successful Business Model by Business Channel.
 - ▶ <https://youtu.be/IP0cUBWTgpY>
- The Business Model Canvas course at Coursera:
 - ▶ <https://www.coursera.org/learn/business-model-canvas>

Module 2: Business Modeling

Topic 2.1: The Business Model Canvas

Business Model Canvas



- Business Model: Introduction
- Customer Segments
- Value Proposition
- Channels
- Customer Relationships
- Revenue Streams
- Key Resources
- Key Activities
- Key Partnerships
- Cost Structure
- Mission Statement

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Business Model

Describes the rationale of how an organisation

creates,
delivers, and
captures

value

The business model is like a **blueprint** for a strategy to be implemented through organizational **structures, processes,** and **systems.**

Business Model description

- A business model can be described through **nine basic building blocks** that show the logic of how a company intends to make money.
- The nine blocks cover the **main areas** of a *business*.
 - ▶ Which are ??

Main areas of a business

- Customers
- Offer
- Infrastructure
- Financial viability

The Business Model Canvas

Designed for: _____ Designed by: _____ Date: _____ Version: _____

Key Partners Who are our key partners? Who are our top five suppliers? Which key resources are we acquiring from partners? Which key activities do partners perform? KEY PARTNERS Distribution and promotion Reduction of risk and uncertainty Acquisition of new human, financial, and physical resources	Key Activities What key activities do our value propositions require? Our Customers' Channels? Customer Relationships? Channels of Distribution? KEY ACTIVITIES Production Distribution Marketing Channels	Value Propositions What value do we deliver to the customer? Which one of our customer's problems are we helping to solve? Which features of our products and services are we offering to attract customers' attention? Which customer needs are we satisfying? VALUE PROPOSITIONS New products Performance Reliability Design Price Risk Reduction Convenience Customization Accessability	Customer Relationships What type of relationship does each of our Customer Segments expect us to establish and maintain with them? Which one of our Customer Segments' business model? Fit with the rest of our value canvas are they? CUSTOMER RELATIONSHIPS Personal assistance Self-Service Automated Services Community Co-creation	Customer Segments Who are our existing, ideal, and potential customers? CUSTOMER SEGMENTS Mass Niche Segments Multi-Sector Multi-Channel
Key Resources What key resources do our value propositions require? Our Customers' Channels? Customer Relationships? Channels of Distribution? KEY RESOURCES Human Financial Physical Intellectual Social Channels	Channels Through which Channels do our Customer Segments want to be reached? How are we reaching them now? Which one of our Customer Segments' business model? Fit with the rest of our value canvas are they? Which one of our Customer Segments' business model? Fit with the rest of our value canvas are they? CHANNELS Direct Indirect Partners Multi-Channel Multi-Sector Multi-Channel Multi-Sector Multi-Channel Multi-Sector	Revenue Streams For what value are our customers really willing to pay? For what do they currently pay? How and how often do they pay? How much does each Revenue Stream contribute to overall revenue? REVENUE STREAMS Transactional Subscription Lending License Advertising Commission Royalty Investment Other	Cost Structure What are the most important costs incurred in our business model? Which key resources are most expensive? Which key activities are most expensive? COST STRUCTURE Variable Fixed Semi-Variable Fixed Overhead Variable Overhead Semi-Variable Overhead Fixed Overhead Variable Overhead Semi-Variable Overhead	

DESIGNED BY: Business Model Foundry AG
The creators of Business Model Generator and Strategyzer

Strategyzer
strategyzer.com



CHECK THE BUSINESS MODEL CANVAS AND IDENTIFY WHICH BLOCKS COVER WHICH AREAS OF BUSINESS:

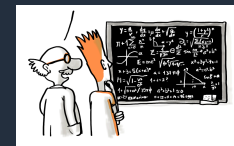
CUSTOMERS

OFFER

INFRASTRUCTURE

FINANCIALS

Business Model Canvas Building Blocks



- An organization serves one or several **Customer Segments**
- It seeks to solve customer problems and satisfy customer needs with **value propositions**
- Value propositions are delivered to customers through communication, distribution, and sales **channels**.
- **Customer relationships** are established and maintained with each customer segment.
- **Revenue streams** result from value propositions successfully offered to customers.
- **Key resources** are the assets required to offer and deliver the previous elements of BMC...
- ...by performing a number of **Key activities**.
- Some activities are outsources and some resources are acquired outside the enterprise through **Key partnerships**.
- The business model elements result in the **cost structure** of the organization.

Customer segment identification

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- Customer, groups represent **separate segments** if:
 - ▶ Their **needs** require and justify a **distinct** offer.
 - ▶ They are reached through different **Distribution Channels**.
 - ▶ They require different types of **relationships**.
 - ▶ They have substantially different **profitabilities**.
 - ▶ They are willing to pay for different **aspects** of the offer.

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Mass markets

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- The Value Propositions, Distribution Channels, and Customer Relationships all focus on **one large group of customers with broadly similar needs and problems**.
- Business models focused on mass markets don't distinguish between different Customer Segments.
- Found in consumer electronics sector.

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Topic 2.1: The Business Model Canvas

Customer segment types

Niche markets

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- The Value Propositions, Distribution Channels, and Customer Relationships are all tailored to the **specific requirements of a niche market**.
 - Such business models are often found in **supplier-buyer relationships**.
- Business models targeting niche markets cater to **specific, specialized** Customer Segments.
 - E.g: many car part manufacturers depend heavily on purchases from major automobile manufacturers.

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Segmented markets

- Some business models distinguish between **market segments** with **slightly different needs** & problems
- The retail arm of a bank like Credit Suisse, could implement a segmented customer business model to cater to two **distinct customer segments based on asset value**:
 - ▶ **Mass Market**: A large group of customers, each with assets of up to \$100,000. These individuals require **accessible, straightforward** banking **solutions**.
 - ▶ **Affluent Clients**: A smaller, more exclusive group whose net worth exceeds \$500,000. This segment demands more **personalized, sophisticated** financial **services**.
 - ▶ Both segments have similar yet distinct needs and problems, necessitating tailored approaches.
- Implications on business model:
 - ▶ **Value Proposition**: Diversified offerings to meet the specific needs of each segment.
 - For mass-market customers: focus might be on accessibility and simplicity.
 - Affluent clients: bespoke investment advice and premium services.
 - ▶ **Distribution Channels**: from digital platforms to personalized, direct engagement.
 - ▶ Customer Relationships: From self-service options to dedicated account managers.
 - ▶ **Revenue streams**: volume-based revenue from the mass market, premium pricing for specialized services

Diversified



- An organization with a **diversified** customer business model serves **two unrelated Customer Segments** with very **different needs** and **problems**:
 - In 2006 Amazon.com decided to diversify its retail business by selling “**cloud computing**” services: online storage space and on-demand server usage.
 - Thus it started catering to a totally different Customer Segment—Web companies—with a totally different Value Proposition.
 - The strategic rationale behind this diversification can be found in Amazon.com’s powerful IT infrastructure, which can be shared by its **retail sales operations** and the new **cloud computing service unit**.

Segmented markets

- **Micro Precision Systems**, which specializes in providing **outsourced micromechanical design** and **manufacturing solutions**, serves multiple different Customer Segments and offers each slightly different value propositions:

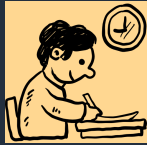
*MPS delivers cutting-edge solutions in microtechnology that meet the demanding needs of its customers. We offer a **comprehensive range of services, from development and prototyping**, to the **industrialization and manufacturing** of systems. Explore the links below to discover the diverse markets that MPS serves.*



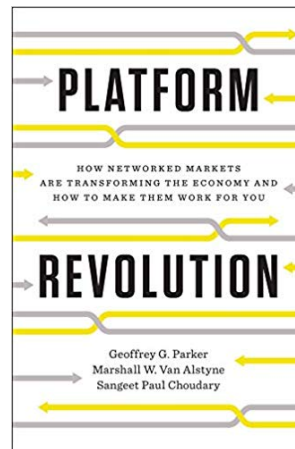
Multi-sided platforms (or markets)

- Some organizations serve **two or more interdependent Customer Segments**.
 - ▶ A **credit card company** needs a large base of **credit card holders** and a large base of **merchants** who accept those credit cards.
 - ▶ Similarly, an enterprise offering a **free newspaper** needs a **large reader base** to attract advertisers. On the other hand, it also needs **advertisers** to finance production and distribution.
 - Both segments are required to make the business model work.

Reading Proposition



- Check out the following books:



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Reading Assignment Online Videos & Courses



- Is there any space for more e-commerce or gig-economy startups? James Mi, Founding Lightspeed China Partners (LCP), a leading China-focused early-stage venture capital firm (2018).
 ▶ <https://youtu.be/XGVUEjWJTEM>
- Interview of Cindy Mi, founder and CEO of VIPKID on platforms for matching students with tutors and delivery of tutoring over the Internet. Y Combinator (2019)
 ▶ <https://www.youtube.com/watch?v=EoffBerre24>

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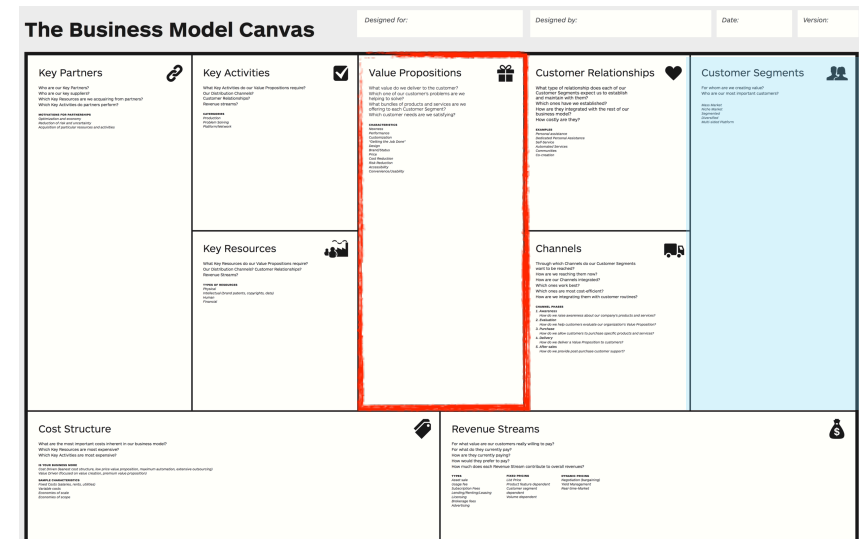
Business Model Canvas



- Business Model: Introduction
- Customer Segments
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- Mission Statement

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Value Propositions



Value Proposition

- Describes the **bundle of products and/or services** that caters to the requirements of a specific **Customer Segment**.
- It is an **aggregation**, or **bundle**, of **benefits** that a company offers customers.

Value Proposition characteristics

- A VP creates value for a Customer Segment through a distinct mix of elements catering to that segment's needs.
- Some VPs may be **innovative** and represent a new or disruptive offer.
- Others may be similar to existing market offers, but with **added features** and attributes.
- Values may be **quantitative** (eg. price, speed of service) or **qualitative** (eg. design, customer experience).

? Key questions

- What **value** do we deliver to the customer?
- Which one of our customer's **problems** are we helping to solve?
- Which customer **needs** are we satisfying?
- What **bundles** of products and services are we **offering** to each Customer Segment?



HOW TO CREATE VALUE?

How to create value?

- **Novelty:** Some Value Propositions satisfy an **entirely new set of needs** that customers previously didn't perceive because there was no similar offering. This is often, but not always, technology related.
 - ▶ *Cell phones*, for instance, created a whole new industry around mobile telecommunication.
 - ▶ On the other hand, products such as *ethical investment funds* have little to do with new technology.

How to create value?

- **Getting the job done:** Value can be created simply by helping a customer get certain jobs done.
 - ▶ **Rolls-Royce's** airline customers rely entirely on Rolls-Royce to manufacture and service their jet engines. This arrangement allows customers to focus on running their airlines. In return, the airlines pay Rolls-Royce a fee for every hour an engine runs.
- **Design** is an important but difficult element to measure.
 - ▶ A product may stand out because of superior design.
 - ▶ In the fashion and consumer electronics industries, design can be a particularly important part of the Value Proposition.

How to create value?

- **Performance:** Improving product or service performance has traditionally been a common way to create value.
 - ▶ The PC sector has traditionally relied on this factor by bringing more powerful machines to market.
 - ▶ But improved performance has its limits: In recent years faster PCs, more disk storage space, and better graphics have failed to produce corresponding growth in customer demand.
- **Customization:** Tailoring products and services to the specific needs of individual customers or Customer Segments creates value.
 - ▶ In recent years, the concepts of **mass customization** and **customer co-creation** have gained importance.
 - ▶ This approach allows for customized products and services, while still taking advantage of economies of scale.

How to create value?

- **Brand/ Status:** Customers may find value in the simple act of **using** and **displaying** a specific brand.
 - ▶ Wearing a Rolex watch signifies wealth, for example.
 - ▶ On the other end of the spectrum, skateboarders may wear the latest "underground" brands to show that they are "in."

How to create value?



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• Cost reduction

- ▶ Helping customers **reduce costs** is an important way to create value.
- ▶ [Salesforce.com](https://www.salesforce.com), for example, sells a hosted **Customer Relationship management** (CRM) application.
- ▶ This relieves buyers from the **expense** and trouble of having to **buy**, **install**, and **manage** CRM software themselves.
- ▶ Salesforce is an example of a **Software as a Service** offer: a software licensing and delivery model in which software is licensed on a subscription basis and is centrally hosted. It is sometimes referred to as "**on-demand software**"

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How to create value?

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- **Risk reduction:** Customers value reducing the risks they incur when purchasing products or services.
- For a **used car buyer**, a *one-year service guarantee* reduces the risk of post-purchase breakdowns and repairs.
- A *service-level guarantee* partially reduces the risk undertaken by a purchaser of **outsourced IT services**.

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Knowledge Check



Think of other possible cost-reduction offerings based on the SaaS model

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How to create value?

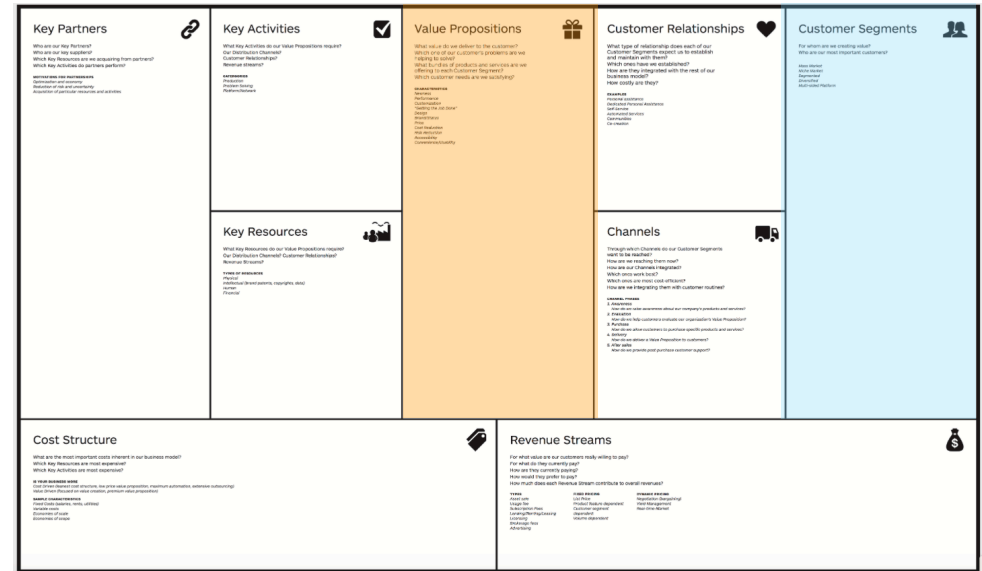
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- **Accessibility:** Making products and services available to customers who previously lacked access to them is another way to create value.
- This can result from business model innovation, new technologies, or a combination of both.
 - ▶ **NetJets**, for instance, popularized the concept of fractional private jet ownership. NetJets offers individuals and corporations access to private jets, a service previously unaffordable to most customers.
 - ▶ **Mutual funds** provide another example of value creation through increased accessibility. This innovative financial product made it possible even for those with modest wealth to build diversified investment portfolios.

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How to create value?

- **Convenience/ Usability:** Making things more convenient or easier to use can create substantial value.
 - ▶ With **iPod** and **iTunes**, Apple offered customers unprecedented convenience searching, buying, downloading, and listening to digital music.
 - It dominated the market (circa 2010)
 - ▶ Is it true now?



Business Model Canvas

MAI4CAREU University of Cyprus Department of Computer Science

- Business Model: Introduction
- Customer Segments
- Value Proposition
- **Channels**
- Customer Relationships
- Revenue Streams
- Key Resources
- Key Activities
- Key Partnerships
- Cost Structure
- Mission Statement

Channels

The diagram is a Business Model Canvas with the following sections:

- Key Partners:** Who are our Key Partners? What do our Key Partners do for us? Which Key Activities do we outsource from partners? Which Key Activities do partners perform? What are our key resources? What are our key activities? What are our key channels? What are our key customer segments? What are our key revenue streams? What are our key cost structures? What are our key revenue streams?
- Key Activities:** What Key Activities do our Value Propositions require? Our Distribution Channels? Customer Relationships? Revenue Streams? What are our key resources? What are our key activities? What are our key channels? What are our key customer segments? What are our key revenue streams? What are our key cost structures? What are our key revenue streams?
- Value Propositions:** What value do we deliver to the customer? What are our customer's top problems and needs? How do we solve these problems and needs? What bundles of products and services are we offering to each Customer Segment? Which customer needs are we targeting? What are our key resources? What are our key activities? What are our key channels? What are our key customer segments? What are our key revenue streams? What are our key cost structures? What are our key revenue streams?
- Customer Relationships:** What type of relationship does each of our Customer Segments expect us to establish and maintain with them? How do we create, build and maintain this relationship? Which channels do we use to reach each Customer Segment? How do we integrate them with customer routines? What are our key resources? What are our key activities? What are our key channels? What are our key customer segments? What are our key revenue streams? What are our key cost structures? What are our key revenue streams?
- Customer Segments:** For whom are we creating value? Who are our most important customer segments? What are our key resources? What are our key activities? What are our key channels? What are our key customer segments? What are our key revenue streams? What are our key cost structures? What are our key revenue streams?
- Key Resources:** What Key Resources do our Value Propositions require? Our Distribution Channels? Customer Relationships? Revenue Streams? What are our key resources? What are our key activities? What are our key channels? What are our key customer segments? What are our key revenue streams? What are our key cost structures? What are our key revenue streams?
- Channels:** Through which Channels do our Customer Segments expect to be reached? How are they currently reached? How do we reach them? Which channels do we use to reach each Customer Segment? How do we integrate them with customer routines? What are our key resources? What are our key activities? What are our key channels? What are our key customer segments? What are our key revenue streams? What are our key cost structures? What are our key revenue streams?
- Cost Structure:** What are the most important costs inherent in our business model? Which Key Resources are most expensive? Which Key Activities are most expensive? How do we integrate them with customer routines? What are our key resources? What are our key activities? What are our key channels? What are our key customer segments? What are our key revenue streams? What are our key cost structures? What are our key revenue streams?
- Revenue Streams:** For what value are our customers really willing to pay? For what do they currently pay? How are they currently paying? How would they prefer to pay? How might each Revenue Stream contribute to overall revenues? What are our key resources? What are our key activities? What are our key channels? What are our key customer segments? What are our key revenue streams? What are our key cost structures? What are our key revenue streams?

Channels

- Describe how a company **communicates with** and **reaches its Customer Segments** to **deliver a Value Proposition Communication, distribution, and sales.**
- Comprise a company's **interface with customers.**
- Play an important role in the **customer experience.**

Channels' functions

- **Raising awareness** among customers about a company's products and services
- **Helping customers evaluate** the Value Proposition of a company
- Allowing customers to **purchase** specific products and services
- **Delivering** a Value Proposition to customers
- Providing post-purchase **customer support**

? Key questions

- Through which Channels do our Customer Segments **want to be reached?**
- How are we **reaching them now?**
- How are our Channels **integrated?**
- Which ones **work best?**
- Which ones are most **cost—efficient?**
- How are we **integrating them with customer routines?**

Channel categories

- Mode of contact with customers:
 - **Direct**
 - **Indirect**
- Ownership:
 - **Own**
 - **Partners'**

Channel categories

- **Owned** Channels can be:
 - ▶ **direct**, such as an in-house sales force or a Web site
 - ▶ **indirect**, such as retail stores owned or operated by the organization.
- **Partner** Channels are **indirect** and span a whole range of options, such as **wholesale** distribution, **retail**, or partner-owned **Web sites**.

Owned vs Partner Channels

- **Partner Channels** lead to **lower margins**, but they allow an organization to expand its reach and benefit from partner strengths.
- **Owned Channels** and particularly direct ones have **higher margins**, but can be costly to put in place and to operate.
- The trick is to find the right balance between the different types of Channels, to:
 - ▶ integrate them in a way to create a **great customer experience**,
 - ▶ and to **maximize revenues**.

Channel categories

- An organization can choose between reaching its customers through its **own** Channels, through **partner** Channels, or through a **mix** of both.
- Finding the **right mix of Channels** to satisfy how customers want to be reached is **crucial** in bringing a Value Proposition to market.

Channel Types and Phases

Channel Types		Channel Phases				
Own	Direct	Sales force				
		Web sales				
Partner	Indirect	Own stores				
		Partner Stores				
		Wholesaler				

Channel Types and Phases

Channel Types		Channel Phases				
Own	Direct	Sales force	1. Awareness	How do we raise awareness about our company's products and services?		
		Web sales				
Partner	Indirect	Own stores				
		Partner Stores				
		Wholesaler				

Channel Types and Phases

Channel Types		Channel Phases				
Own	Direct	Sales force	1. Awareness	2. Evaluation	How do we help customers evaluate our organization's Value Proposition?	
		Web sales				
Partner	Indirect	Own stores				
		Partner Stores				
		Wholesaler				

Channel Types and Phases

Channel Types		Channel Phases					
Own	Direct	Sales force	1. Awareness	2. Evaluation	3. Purchase	How do we allow customers to purchase specific products and services?	
		Web sales					
Partner	Indirect	Own stores					
		Partner Stores					
		Wholesaler					

Channel Types and Phases

Channel Types		Channel Phases						
Own	Direct	Sales force	1. Awareness	2. Evaluation	3. Purchase	4. Delivery	How do we deliver a Value Proposition to customers?	
		Web sales						
Partner	Indirect	Own stores						
		Partner Stores						
		Wholesaler						

Channel Types and Phases

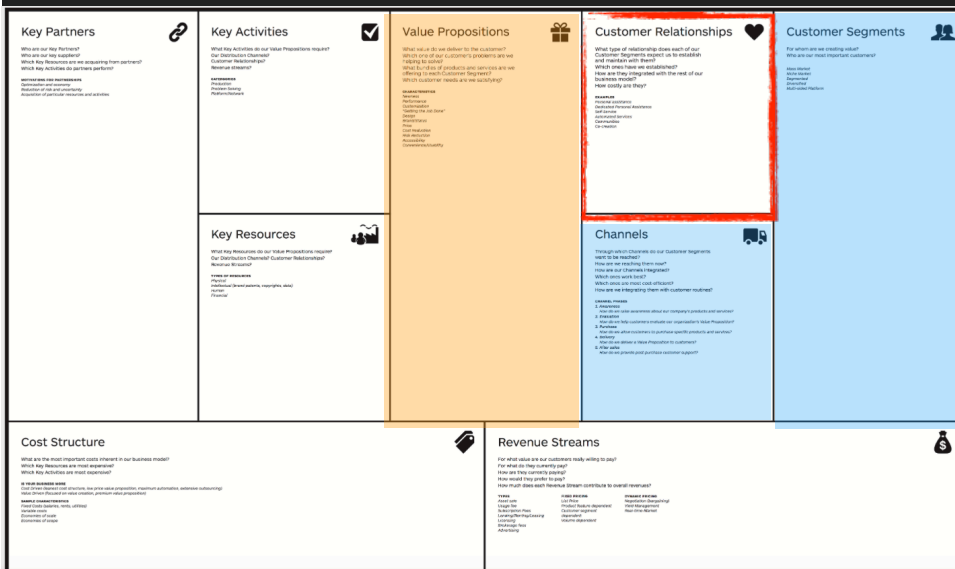
Channel Types		Channel Phases					
Own	Direct	Sales force	1. Awareness	2. Evaluation	3. Purchase	4. Delivery	5. After Sales
	Web sales						
Partner	Indirect	Own stores	How do we raise awareness about our company's products and services?	How do we help customers evaluate our organization's Value Proposition?	How do we allow customers to purchase specific products and services?	How do we deliver a Value Proposition to customers?	How do we provide post-purchase customer support?
		Partner Stores					
		Wholesaler					

Business Model Canvas



- Business Model: Introduction
- Customer Segments
- Value Proposition
- Channels
- **Customer Relationships**
- Revenue Streams
- Key Resources
- Key Activities
- Key Partnerships
- Cost Structure

Customer Relationships



Customer Relationships

- A company should clarify **the type of relationship it wants to establish** with each Customer Segment.
- Relationships can range from **personal** to **automated**.
- Customer relationships may be driven by the following motivations:
 - ▶ Customer **acquisition**
 - ▶ Customer **retention**
 - ▶ Boostings sales (**up-selling**)

Customer Relationships

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- In the early days of Mobile telephony, Mobile network operator Customer relationships were driven by **aggressive acquisition** strategies involving **free** mobile phones.
- When the market became saturated, operators switched to *focusing on customer retention* and *increasing average revenue per customer*.

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A company's **business model** dictates the **type of Customer Relationships** which in turn **deeply influence the overall customer experience.**

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? Key questions

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- What **type of relationship** does each of our Customer Segments expect us to establish and maintain with them?
- Which ones have we **established**?
- How **costly** are they?
- How are they **integrated** with the rest of our business model?

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Customer Relationship categories

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- Personal assistance
- Dedicated personal assistance
- Self-service
- Automated services
- Communities
- Co-creation

These may co-exist in a company's relationship with a particular customer segment

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Personal Assistance

- Relationship is based on **human interaction**.
- The customer can:
 - communicate with a **real customer representative**
 - to get help during the sales process
 - or after the purchase is complete.
- This may happen:
 - ▶ **on-site** at the point of sale
 - ▶ through **call centers**
 - ▶ by **e-mail**,
 - ▶ or through other means.

Self or Automated Service

- **Self-service:** In this type of relationship, a company maintains **no direct relationship** with customers.
 - ▶ It provides all the **necessary means** for customers to help themselves.
- **Automated services:** Mixes a more sophisticated form of customer **self-service** with **automated processes**.
 - ▶ For example, **personal online profiles** give customers access to customized services.
 - ▶ Automated services can recognize individual customers and their characteristics, and offer information related to orders or transactions.
 - ▶ At their best, automated services can simulate a personal relationship (e.g. offering book or movie recommendations).

Dedicated Personal Assistance

- This relationship involves **dedicating a customer representative** specifically to an individual client.
- It represents the **deepest** and **most intimate** type of relationship and normally develops over a **long period of time**.
 - ▶ In private banking services, for example, dedicated bankers serve high net worth individuals.
- Similar relationships can be found in other businesses in the form of **key account managers** who maintain personal relationships with important customers.

Communities

- Increasingly, companies are utilizing user communities to:
 - ▶ become **more involved with customers/prospects** and
 - ▶ **facilitate connections** between community members; online communities allow users to exchange knowledge and solve each other's problems.
 - ▶ help companies **better understand their customers**.
- ▶ Pharmaceutical giant **GlaxoSmithKline** launched a private online community when it introduced *alli*, a new prescription-free weight-loss product.
 - GlaxoSmithKline wanted to increase its understanding of the challenges faced by overweight adults, and thereby learn to better manage customer expectations.

Co-creation

- More companies are going beyond the traditional customer-vendor relationship to **co-create value** with customers.
- ▶ [Amazon.com](https://www.amazon.com) invites customers to write **reviews** and thus create value for other book lovers.
- ▶ Some companies engage customers to **assist with the design** of new and innovative products.
- ▶ Others, such as [YouTube.com](https://www.youtube.com), solicit customers to **create content** for public consumption.

Some Readings



- "The economic potential of generative AI: The next productivity frontier", McKinsey report, June 2023 (<https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/the-economic-potential-of-generative-ai-the-next-productivity-frontier#>)
- "Generative AI at Work", NBER Working Paper, April 2023
- <https://knowledge.insead.edu/series/ai-disruption-and-adaptation>
- "How People Can Create—and Destroy—Value with Generative AI", BCG, 2023
- "What is a Chatbot? Types of Chatbots and How They Work", Shopify, <https://www.shopify.com/blog/chatbots>



SOURCES OF DISRUPTION IN CUSTOMER RELATIONSHIPS?

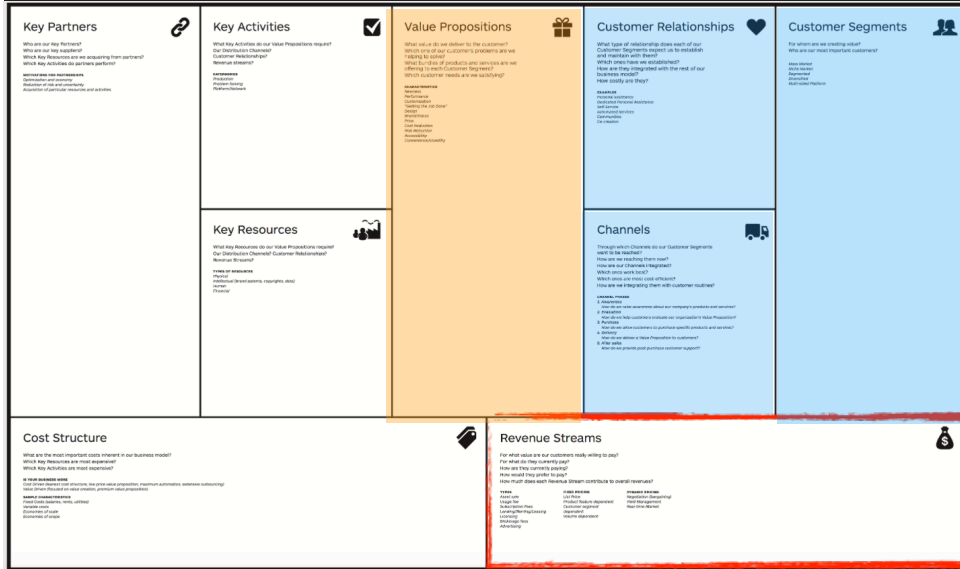


Business Model Canvas



- Business Model: Introduction
- Customer Segments
- Value Proposition
- Channels
- Customer Relationships
- **Revenue Streams**
- Key Resources
- Key Activities
- Key Partnerships
- Cost Structure

Revenue streams



Revenue Streams

- Represent the **cash a company generates from each Customer Segment**
 - Costs must be subtracted from revenues to create earnings
- If customers comprise the heart of a business model, Revenue Streams are its arteries.

Pricing Mechanisms

- Each revenue stream may have different **pricing** mechanisms:
 - ▶ Fixed list prices
 - ▶ bargaining
 - ▶ auctioning
 - ▶ market-dependent
 - ▶ volume-dependent or
 - ▶ yield management

Revenue Streams categories

- **Transaction revenues** resulting from **one-time** customer payments
- **Recurring revenues** resulting from **ongoing payments** to:
 - ▶ deliver a Value Proposition to customers or
 - ▶ provide customer support post-purchase

? Key questions

- For **what value** are your customers really **willing to pay**?
 - ▶ Successfully answering that question allows the firm to generate one or more Revenue Streams from each Customer Segment.
- For **what** do they **currently pay**?
- **How** are they currently paying?
- How would they **prefer to pay**?
- How much does **each Revenue Stream contribute to overall revenues**?

Asset Sale

- The most widely understood Revenue Stream derives from **selling ownership rights** to a **physical (tangible) product**.
 - ▶ **Amazon.com** sells books, music, consumer electronics, and more online.
 - ▶ **Fiat** sells automobiles, which buyers are free to drive, resell, or even destroy.

Generating Revenue Streams

- Asset sale
- Usage fee
- Subscription Fees
- Lending/Renting/Leasing
- Licensing
- Brokerage fees
- Advertising

Usage fee

- This Revenue Stream is generated by the **use of a particular service**.
- The **more a service is used**, the **more the customer pays**.
 - ▶ A **telecom** operator may charge customers for the number of minutes spent on the phone.
 - ▶ A **hotel** charges customers for the number of nights rooms are used.
 - ▶ A **package delivery** service charges customers for the delivery of a Parcel from one location to another.

Subscription Fees

- This Revenue Stream is generated by selling continuous access to a service.
 - ▶ A gym sells its members monthly or yearly subscriptions in exchange for access to its exercise facilities.
 - ▶ World of Warcraft Online, a Web-based computer game, allows users to play its online game in exchange for a monthly subscription fee.
 - ▶ Spotify gives users access to a music library for a subscription fee.



Licensing

- This Revenue Stream is generated by giving customers **permission to use protected intellectual property** in exchange for licensing fees.
 - ▶ Licensing allows rights-holders to generate revenues from their property without having to manufacture a product or commercialize a service.
 - ▶ Licensing is common in the **media industry**, where content owners retain copyright while selling usage licenses to third parties.
 - ▶ Similarly, in technology sectors, patent holders grant other companies the right to use a patented technology in return for a license fee.

Lending/Renting/Leasing

- This Revenue Stream is created by temporarily granting someone the **exclusive right** to use a particular asset for a fixed period in return for a fee.
 - ▶ For the lender this provides the advantage of **recurring revenues**.
 - ▶ Renters or lessees, on the other hand, enjoy the benefits of incurring **expenses for only a limited time** rather than bearing the full costs.
 - ▶ **Zipcar.com** provides a good illustration.
 - ▶ The company allows customers to **rent cars by the hour** in North American cities.
 - ▶ Zipcar.com's service has led many people to decide to rent rather than purchase automobiles.



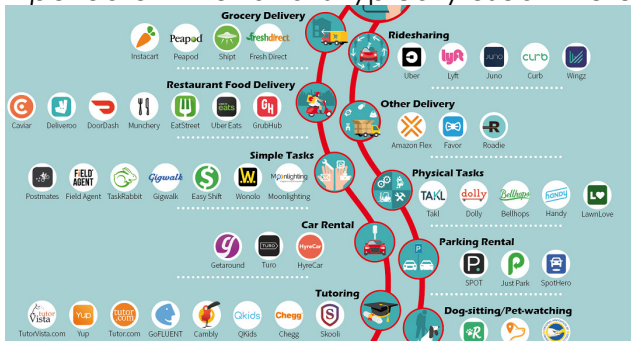
Brokerage fees

- This Revenue Stream derives from **intermediation services** performed on behalf of two or more parties.
 - ▶ **Credit card providers**, for example, earn revenues by taking a percentage of the value of each sales transaction executed between credit card merchants and customers.
 - ▶ **Brokers and real estate agents** earn a commission each time they successfully match a buyer and seller.
 - ▶ **Airbnb, booking.com** etc, earn a commission by matching available rooms with people seeking temporary accommodation.



"Gig" economy

- A gig economy is a free market system in which **temporary positions are common** and organizations contract with **independent workers** for **short-term engagements**.
- The term "gig" is a slang word meaning "a job for a specified period of time" and is typically used in referring to musicians.



Advertising

- This Revenue Stream results from **fees for advertising** a particular **product, service, or brand**.
- Traditionally, the **media industry** and **event organizers** relied heavily on revenues from advertising.
- In recent years other sectors, including software and services, have started relying more heavily on advertising revenues.

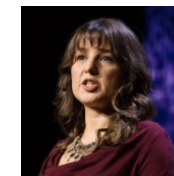
"If you're not paying for the product, then you are the product"



Case Study: Wired, 1/2018



"the core business model underlying [Internet] platforms is **harvesting attention** with a **massive surveillance infrastructure** to allow for **targeted**, mostly automated **advertising** at very large scale"



Zeynep Tufeksi, UNC
Wired, 1/2018

Case study: Antitrust Case against Facebook



“Today, using Facebook means to accept a product linked to broad-scale commercial surveillance.”

“The Antitrust Case Against Facebook,”
Srinivasan, Berkeley Business Law Jour
2001



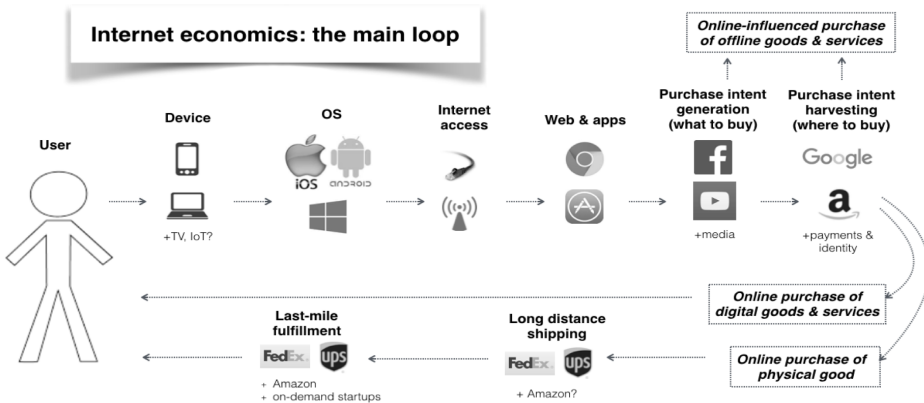
M. D. Dikaiakos



94 M. D. Dikaiakos

The “attention” economy

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Source: <https://medium.com/@cdixon/the-internet-economy-fc43f3eff58a>

Case Study: Cambridge Analytica



“We were able to form a model to predict the personality of every single adult in the United States....

If you know the personality of the people you're targeting, you can nuance your messaging to resonate more effectively with those key audience groups. ...

We ... understand exactly which messages are going to appeal to which audiences....

Today, communication is ... being individualized for every single person in this room.”

Alexander Nix, CEO, Cambridge Analytica

September 2016

Case Study



“New retail: our marketplace platforms handle **billions of transactions each month** in **shopping, daily services & payments**.

These transactions provide us with the **best insights into consumer behavior & shifting consumption trends**.

we are the most comprehensive ecosystem of commerce platforms, logistics & payments to support the digital transformation of the retail sector.”

*Joe Chai, co-founder, **Alibaba Group** September 2016*



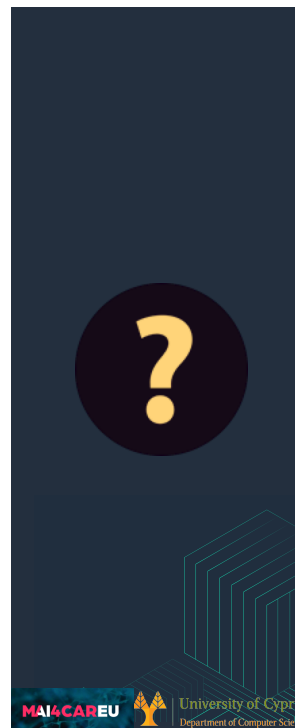
Computational Advertising Impact

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People were much more likely to purchase a product when they viewed an ad that was consistent with their predicted personality trait.

Targeted messaging based on people’s personalities resulted in up to **40% more clicks** and **up to 54% more purchases** than mismatched messaging

“Psychological Targeting as an Effective Approach to Digital Market Persuasion” S. Matz et al. PNAS (2017)



PERSONALIZED TARGETING: DOES IT WORK?

Revenue Streams and Pricing

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- Each Revenue Stream might have different pricing mechanisms.
- The type of pricing mechanism chosen can make a big difference in terms of revenues generated.
- There are two main types of **pricing mechanisms**:
 - fixed
 - dynamic

Pricing Mechanisms

Fixed Menu Pricing	Dynamic Pricing
Predefined prices are based on static variables	Prices change based on market conditions

Pricing Mechanisms

Fixed Menu Pricing	Dynamic Pricing
Predefined prices are based on static variables	Prices change based on market conditions
List price	Fixed prices for individual products, services, or other Value Propositions

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Pricing Mechanisms

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List price	Fixed prices for individual products, services, or other Value Propositions		
Product feature-dependent	Price depends on the number or quality of dependent Value Proposition features		
Customer segment dependent	Price depends on the type and characteristic of a Customer Segment		
Volume dependent	Price as a function of the quantity purchased		

Pricing Mechanisms

Fixed Menu Pricing		Dynamic Pricing	
Predefined prices are based on static variables		Prices change based on market conditions	
		Negotiation (bargaining)	Price negotiated between two or more partners depending on negotiation power and/or negotiation skills

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Lecture 29/2/2024




Review



The Business Model Canvas

Key Partners Who are the most important suppliers and partners that make the business model work? - Strategic alliances, joint ventures, networks, etc.	Key Activities What key activities must the business model perform to be successful? - Production, problem-solving, etc.	Value Propositions What value does the business model provide to its customers? - Products, services, etc.	Customer Relationships How does the business model establish, maintain, and enhance relationships with its customer segments? - Personalized, self-service, etc.
Key Resources What key resources must the business model possess to be successful? - Financial, human, intellectual, etc.	Channels Through which channels does the business model reach its customer segments? - Direct, indirect, etc.	Customer Segments Which customer segments does the business model target? - Mass, niche, etc.	Revenue Streams How does the business model generate revenue? - Sales, subscriptions, etc.
Cost Structure What are the most important costs incurred by the business model? - Variable, fixed, etc.		Revenue Streams How does the business model generate revenue? - Sales, subscriptions, etc.	

Customers

Infrastructure

Offer

Financials




M. D. Dikaikakos

Business Model Canvas

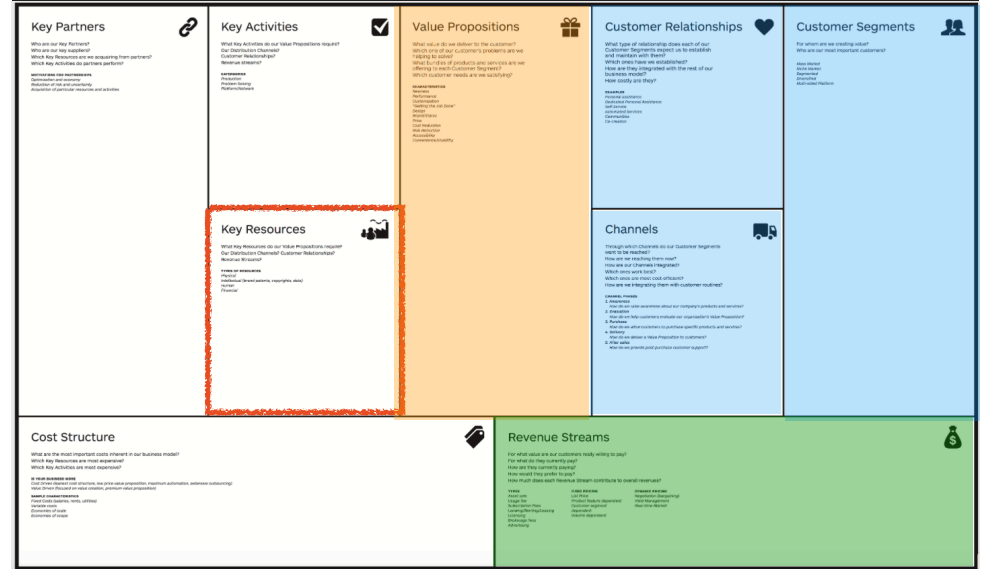


- Business Model: Introduction
- Customer Segments
- Value Proposition
- Channels
- Customer Relationships
- Revenue Streams
- **Key Resources**
- Key Activities
- Key Partnerships
- Cost Structure

Key Resources

- The Key Resources Building Block describes the **most important assets required** to make a business model work
- Why do we need Key Resources for a business model?
- To allow an enterprise to:
 - create and offer a Value Proposition;
 - reach markets
 - maintain relationships with Customer Segments, and
 - earn revenues.
- Different Key Resources are needed depending on the type of business model.
 - A **microchip manufacturer** requires capital-intensive **production facilities**, whereas a **microchip designer** focuses more on **human resources**.

Key Resources

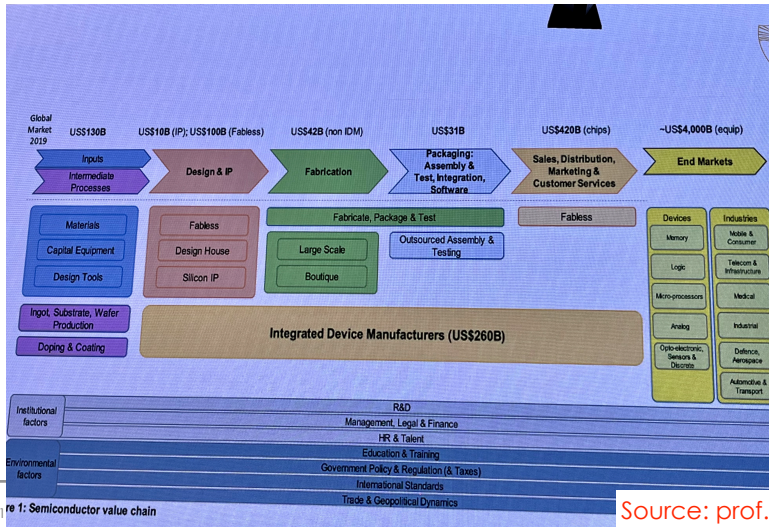


Key Resources

- Key resources can be:
 - physical
 - financial
 - intellectual, or
 - human.
- Key resources can be
 - owned or leased by the company or
 - acquired from key partners.

Key Resources

- May entail a complex web of relationships



Source: prof. Max Nikias, USC

KR: Physical Resources

- Physical assets such as **manufacturing facilities, buildings, vehicles, machines, systems, point-of-sales systems,** and **distribution networks.**
- Retailers like **Walmart** and **Amazon.com** rely heavily on physical resources, which are often capital-intensive.
 - The former has an enormous global network of **stores** and related **logistics** infrastructure.
 - The latter has an extensive **IT, warehouse,** and **logistics** infrastructure.

? Key questions

What Key Resources are required due to:

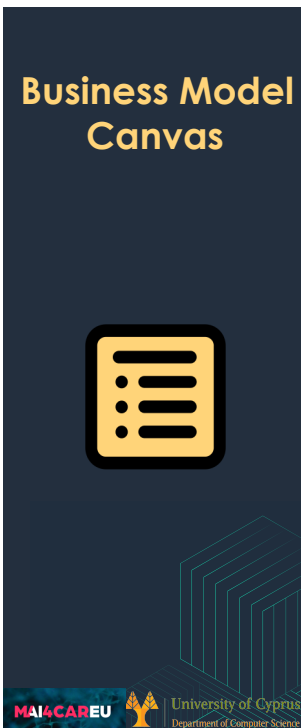
- Your **Value Proposition?**
- Your **Distribution Channels?**
- Your **Customer Relationships?**
- Your **Revenue Streams?**

KR: Intellectual Resources

- Intellectual resources (**intangibles**) such as **brands, proprietary knowledge, patents and copyrights, partnerships,** and **customer databases** are increasingly important components of a strong business model.
- Intellectual resources are **difficult to develop** but when successfully created may offer substantial value.
 - ▶ Consumer goods companies such as **Nike** and **Sony** rely heavily on **brand** as a Key Resource.
 - ▶ **Microsoft** and **SAP** depend on **software** and related **intellectual property** developed over many years.
 - ▶ **Qualcomm**, a designer and supplier of chipsets for broadband mobile devices, built its business model around **patented microchip designs** that earn the company substantial licensing fees.

KR: Human Resources

- Every enterprise requires human resources, but people are particularly prominent in certain business models.
- For example: human resources are crucial in **knowledge-intensive** and **creative industries**.
 - ▶ A pharmaceutical company such as **Novartis**, for example, relies heavily on human resources:
 - ▶ Its business model is predicated on an army of experienced scientists and a large and skilled sales force.

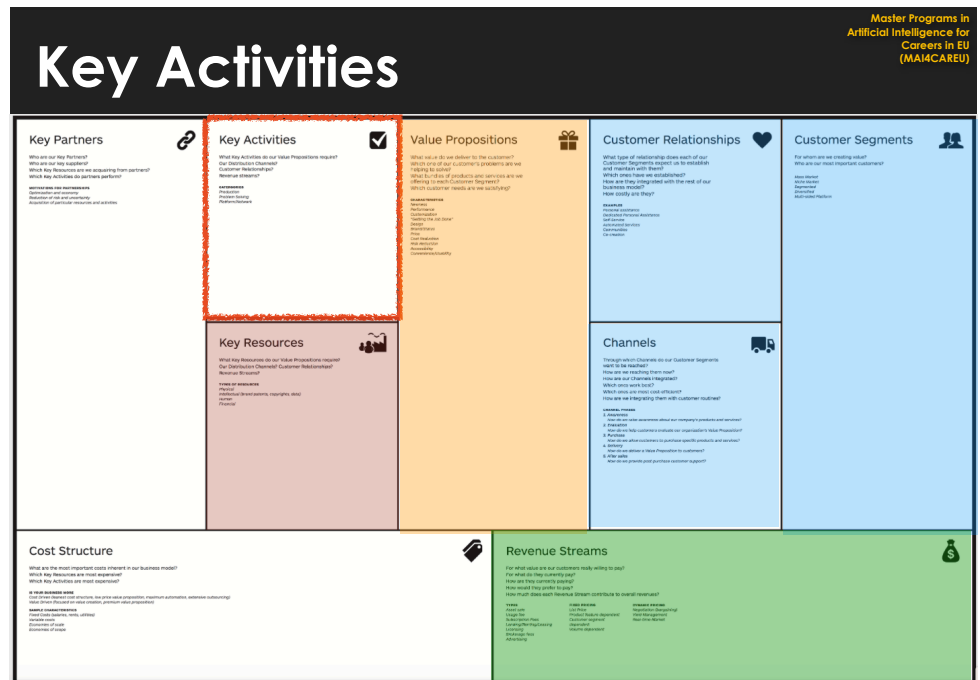


Business Model Canvas

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KR: Financial Resources

- Some business models call for **financial resources** and/or **financial guarantees**, such as: **cash**, **lines of credit**, or a **stock option pool for hiring** key employees.
- **Ericsson**, the telecom manufacturer, provides an example of financial resource leverage within a business model:
 - ▶ Ericsson may opt to borrow funds from banks and capital markets, then use a portion of the proceeds to provide **vendor financing** to equipment customers, thus ensuring that orders are placed with Ericsson rather than competitors.



Key Activities

What key activities do our Value Propositions require? Our Distribution Channels? Customer Relationships? Revenue Streams?

What key activities do our Key Partnerships require? Our Distribution Channels? Customer Relationships? Revenue Streams?

What key activities do our Key Resources require? Our Distribution Channels? Customer Relationships? Revenue Streams?

What key activities do our Key Partnerships require? Our Distribution Channels? Customer Relationships? Revenue Streams?

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What key activities do our Key Partnerships require? Our Distribution Channels? Customer Relationships? Revenue Streams?

What key activities do our Key Resources require? Our Distribution Channels? Customer Relationships? Revenue Streams?

Key Activities

- The Key Activities building block describes the:
 - ▶ most important things a company must do to make its business model work.
 - ▶ most important actions a company must take to operate successfully.
- Key Activities:
 - ▶ Are required to create and offer a Value Proposition, reach markets, maintain Customer Relationships, and earn revenues.
 - ▶ Differ depending on business model type.
- For software maker Microsoft, Key Activities include software development
- For PC manufacturer Dell, Key Activities include supply chain management.
- For consultancy McKinsey, Key Activities include problem solving.

Production Activities

- These activities relate to designing, making, and delivering a product in substantial quantities and/or of superior quality.
- Production activity dominates the business models of manufacturing firms.

? Key questions

What Key Activities are required to:

- Provide your Value Propositions?
- Manage your Distribution Channels?
- Develop and Maintain your Customer Relationships?
- Expand your Revenue Streams?

Problem solving Activities

- Key Activities of this type relate to coming up with new solutions to individual customer problems.
- The operations of consultancies, hospitals, and other service organizations are typically dominated by problem-solving activities.
- Their business models call for activities such as knowledge management and continuous training.

Platform/Network Activities

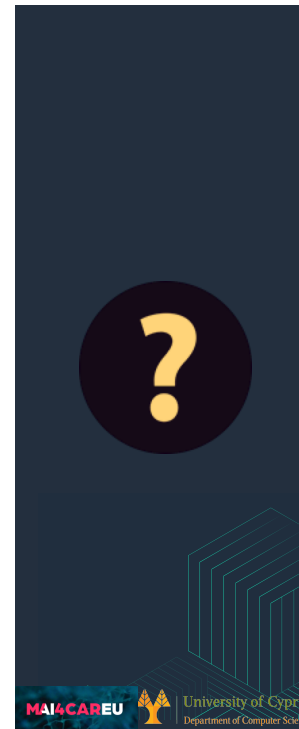
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- Business models designed, with a **platform as a Key Resource**, are dominated by **platform** or **network-related** Key Activities.
- **Networks, matchmaking platforms, software**, and even **brands** can function as a platform.
 - ▶ **eBay's** business model requires that the company continually develop and maintain its platform: the Web site at eBay.com.
 - ▶ **Visa's** business model requires activities related to its Visa credit card transaction platform for merchants, customers and banks.
 - ▶ **Microsoft's** business model requires managing the interface between other vendors' software and its Windows operating system platform.
- Key activities in this category relate to **platform management**, **service provisioning**, and **platform promotion**.

Network effects

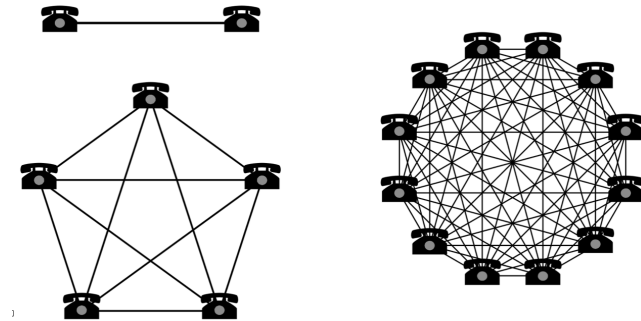
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- Network effects means that:
 - ▶ the value of a network is larger than the sum of the value of its nodes;
 - ▶ and the value of the network grows faster than the size of its nodes.
- Network effects occur when, *from a consumer's perspective*, a product becomes more useful as more people use it.
 - ▶ The classic example is the **telephone**, where a greater number of users increases the value to each. A positive externality is created when a telephone is purchased without its owner intending to create value for other users, but does so regardless.
 - ▶ **Online social networks** work similarly, with sites like Twitter and Facebook increasing in value to each member as more users join. [**Metcalf's Law**]



Platforms typically seek to capture value that emanate from **network effects**

WHAT ARE NETWORK EFFECTS?



Business Model Canvas



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Key Partnerships

- Describes the **network of suppliers** and **partners** that make the business model work.
- Companies forge partnerships for many reasons, and partnerships are becoming a cornerstone of many business models.
- Companies create **alliances** to:
 - ▶ optimize their business models,
 - ▶ reduce risk, or
 - ▶ acquire resources.

Key Partnerships



Importance of Relationships



- **Apple:** The valuable and durable relationships with its **suppliers** - including both its **physical supply chain** and the **developers** who support the Apple ecosystem
- **German Mittelstand** (Germany's cadre of profitable, globally competitive medium sized manufacturing businesses): the sources of their profitability include strong, durable, **information-rich relationships** with **suppliers** and **customers**

["Restarting the Future", Haskel & Westlake, 2022]

Main Partnership Types

- **Strategic alliances** between non-competitors
- **Coopetition**: strategic partnerships between competitors
- **Joint ventures** to develop new businesses
- **Buyer-supplier relationships** to assure reliable supplies

Motivations for partnerships

- **Optimization** and **economy of scale**
- The most basic form of partnership or **buyer-supplier relationship** is designed to optimize the allocation of resources and activities.
- It is **illogical** for a company to **own all resources** or **perform every activity by itself**.
- Optimization and economy of scale partnerships are usually formed to **reduce costs**, and often involve **outsourcing** or **sharing infrastructure**.

? Key questions

- Who are your **Key Partners**?
- Who are your key **Suppliers**?
- Which **Key Resources** are you acquiring from partners?
- Which **Key Activities** do partners perform?

Reduction of risk and uncertainty

- Partnerships can help **reduce risk** in a competitive environment characterized by uncertainty.
- It is not unusual for competitors to form a strategic alliance in one area while competing in another.
 - ▶ E.g: **Blu-ray**, was an optical disc format jointly developed by a group of the world's leading consumer electronics, personal computer, and media manufacturers.
 - ▶ The group cooperated to bring Blu-ray technology to market, yet individual members competed in selling their own Blu-ray products.

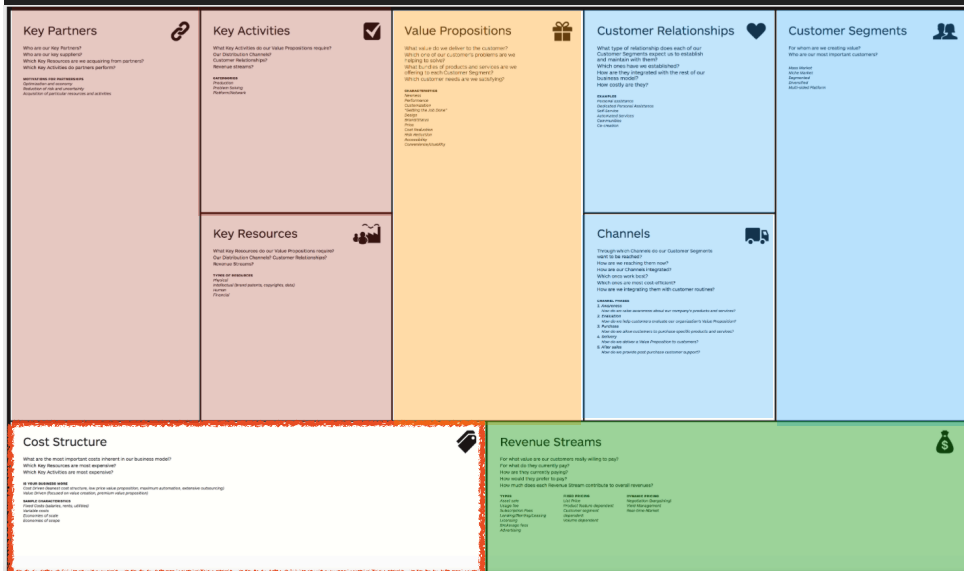
Acquisition of particular resources and activities

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- Few companies own all the resources or perform all the activities described by their business models.
- Rather, they **extend their own capabilities by relying on other firms** to furnish particular resources or perform certain activities.
- Such partnerships can be motivated by needs to acquire **knowledge, licenses, or access to customers**.
 - ▶ A **mobile phone manufacturer**, for example, may license an operating system for its handsets rather than developing one in-house.
 - ▶ An **insurer** may choose to rely on independent brokers to sell its policies rather than develop its own sales force.

Key Partnerships

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Cost Structure

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- The Cost Structure describes **all costs** incurred to operate a business model.
- This building block describes **the most important costs** incurred while operating under a particular business model.
- Costs are incurred when **creating and delivering value, maintaining Customer Relationships, and generating revenue**.
- Such costs can be **calculated relatively easily** after defining Key Resources, Key Activities, and Key Partnerships.



Key questions

- What are the **most important costs inherent** in your business model?
- Which **Key Resources** are most expensive?
- Which **Key Activities** are most expensive?

Cost Structure

- Naturally enough, costs should be minimized in every business model.
- But low Cost Structures are more important to some business models than to others.
- Therefore it can be useful to distinguish between **two broad classes of business model Cost Structures**:
 - ▶ **cost-driven**
 - ▶ **value-driven**
 - ▶ (many business models fall in between these two extremes).

Cost-driven

- Cost-driven business models **focus on minimizing costs** wherever possible.
- This approach aims at creating and maintaining the **leanest possible Cost Structure**, using low price Value Propositions, maximum automation, and extensive outsourcing.
- No frills airlines, such as **easyJet**, and **Ryanair** typify cost-driven business models.

Value-driven

- Some companies are less concerned with the cost implications of a particular business model design, and instead **focus on value creation**.
- **Premium Value Propositions** and a **high degree of personalized service** usually characterize value-driven business models.
 - ▶ Luxury hotels, with lavish facilities and exclusive services, fall into this category.

Cost-structure characteristics

Fixed costs

- Costs that **remain the same despite the volume** of goods or services produced.
 - ▶ Examples include salaries, rents, and physical manufacturing facilities.
 - ▶ Some businesses, such as manufacturing companies, are characterized by a high proportion of fixed costs.

Variable costs

- Costs that **vary proportionally with the volume** of goods or services produced.
 - ▶ Some businesses, such as music festivals, are characterized by a high proportion of variable costs.

Cost-structure characteristics

Economies of **scale**

- Cost advantages that a business enjoys as its **output expands**.
- Larger companies, for instance, benefit from **lower bulk purchase rates**. This and other factors cause average cost per unit to fall as output rises.

Economies of **scope**

- Cost advantages that a business enjoys due to a larger scope of operations.
- In a large enterprise, for example, the same marketing activities or Distribution Channels may support multiple products.

Reading Assignment



Read the following articles on how to evaluate opportunities and how to prepare a mission statement for your company:

- **The Startup Scorecard: How to Evaluate Product Opportunities**
 - <http://nealcabbage.com/framework/opportunity-heuristics/>
- **The mission statement: The basis for startups' strategic planning**
 - <https://learn.marsdd.com/mars-library/the-mission-statement-the-basis-for-startups-strategic-planning/>
- **How to define a mission and vision for your startup.** (2014)
 - <https://ideamensch.com/how-to-define-a-mission-and-vision-for-your-startup/>
- **30 Inspiring Billion-Dollar Startup Company Mission Statements** by Larry Kim.
 - <https://www.inc.com/larry-kim/30-inspiring-billion-dollar-startup-company-mission-statements.html>

Mission and Vision

- A **mission statement** clarifies a company's **current purpose** and why it exists, acting as a guide to navigate the entrepreneurial landscape.
- A **vision statement** outlines the **future direction and goals** of the company, serving as an inspiration for growth and evolution.

Crafting Impactful Statements

- Mission and vision statements should be **succinct**, resonating with the **core** of the business and its **aspirations**.
- They should inspire and provide clarity to all stakeholders, including customers, employees, and investors.

Developing Your Mission Statement

- Reflect on the company's purpose, the needs it meets, and the future it aspires to create.
- Regularly assess and refine these statements to ensure they remain meaningful and aligned with the company's path.
- Dive into questions about the startup's core purpose, the customer needs it serves, and the inspiration behind its inception.
- The mission should encapsulate the startup's value addition and its aspirations for societal or category improvement.

Mission Statement questions

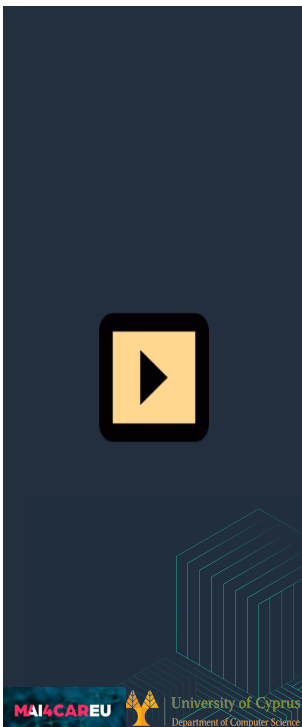
- What's our purpose?
- What's our reason for being?
- Why do we exist?
- Who do we serve?
- How do we serve those customers?
- What problem(s) do we solve?
- What was the unmet need, inspiration, or fulcrum event that compelled us to start a new business?
- How do we add value?
- How do we want to make our customers' lives, our category, or society better?

Crafting Your Vision Statement

- Contemplate where the company is headed, what motivates the daily grind, and the long-term achievements that will define success.
- Vision should embody the brand's future identity and the impact it aims to have in the years to come.

? Vision Statement questions

- Where do we want to go?
- Why do we get up and go to work every day?
- What truly motivates us about what we do?
- What do we want our brand to become?
- What do we want to achieve in the future?
- Five or 10 years from now, how would we know we'd been successful?



- Winning pitch of MIT's 2024 Entrepreneurship Development Program (Jan 2024)

<https://vimeopro.com/user79071710/edp-halo>

Guidelines

- Keep statements **short** and **simple**.
- **Believe in them** and associate with others that believe in them.
- Make them **personal**, **motivating**, and **captivating** in some way.
- Integrate them as a **living, breathing part of your culture**.
- **Use them as a yardstick** regularly in judging your opportunities, decisions, and direction.
- **Refine or rediscover them** if you find that they are no longer resonating or meaningful.

Module 2: Business Modeling

Topic 2.2: Business Model Patterns

You're holding a handbook for visionaries, game changers, and challengers striving to defy outmoded business models and design tomorrow's enterprises. It's a book for the...

Business Model Generation

WRITTEN BY
Ches B. Chesbrough & Ross Stuber
CO-CREATED BY
A community of 450+ thinkers from 40 countries
DESIGNED BY
Marty Stober

WILEY

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- **Pattern** in architecture is the idea of capturing architectural design ideas as archetypal and reusable descriptions.
- **Business model pattern:** business models with similar characteristics, similar arrangements of business model Building Blocks, or similar behaviors.

Business Model Patterns



- **Unbundled**
- Long Tail
- Multi-sided
- Free Advertising
- Freemium (RedHat, Skype)
- Open Business Models

Unbundling Business Models

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- The concept of the **“unbundled” corporation** holds that there are three fundamentally different types of businesses, depending on their key focus:
 - ▶ **Customer Relationship**
 - ▶ **Product innovation**, and
 - ▶ **Infrastructure**.
- Each type has different **economic**, **competitive**, and **cultural** imperatives.
- The three types may co-exist within a single corporation, but ideally they are **“unbundled”** into separate entities in order to avoid conflicts or undesirable trade-offs.

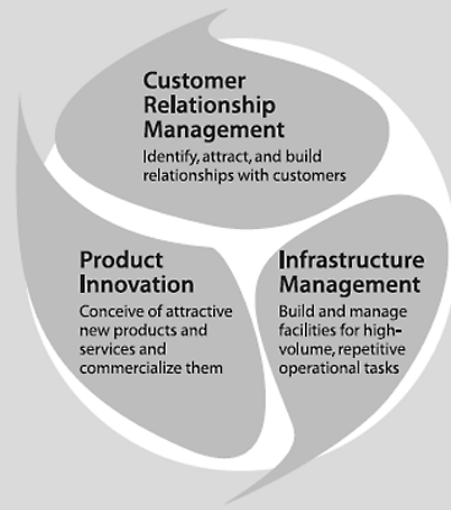
Roles of “unbundled” corporations

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- **Customer Relationship businesses:** finding and acquiring customers and building relationships with them.
- **Product innovation businesses:** develop new and attractive products and services
- **Infrastructure businesses:** build and manage platforms for high volume, repetitive tasks.
- Companies **should separate these businesses and focus on only one of the three internally** [Hagel and Singer]
 - ▶ Each type of business is driven by different factors: when bundled together within the same organisation, they can conflict with each other or produce undesirable trade-offs.



Rethinking the Traditional Organization



As interaction costs fall, companies will come under pressure to unbundle their core processes, each of which has very different

165 "Unbundling the Corporation" John Hagel III and Marc Singer, HBR, March-April 1999

Three Core Business Types

	Product Innovation	Customer Relationship Management	Infrastructure Management
Economics	Early market entry enables charging premium prices and acquiring large market share; speed is key		
Culture	Battle for talent; low barriers to entry; many small players thrive		
Competition	Employee centered; coddling the creative stars		

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Three Core Business Types

	Product Innovation	Customer Relationship Management	Infrastructure Management
Economics	Early market entry enables charging premium prices and acquiring large market share; speed is key	High cost of customer acquisition makes it imperative to gain large wallet share; economies of scope are key	
Culture	Battle for talent; low barriers to entry; many small players thrive	Battle for scope; rapid consolidation; a few big players dominate	
Competition	Employee centered; coddling the creative stars	Highly service oriented; customer-comes-first mentality	

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Three Core Business Types

	Product Innovation	Customer Relationship Management	Infrastructure Management
Economics	Early market entry enables charging premium prices and acquiring large market share; speed is key	High cost of customer acquisition makes it imperative to gain large wallet share; economies of scope are key	High fixed costs make large volumes essential to achieve low unit costs; economies of scale are key
Culture	Battle for talent; low barriers to entry; many small players thrive	Battle for scope; rapid consolidation; a few big players dominate	Battle for scale; rapid consolidation; a few big players dominate
Competition	Employee centered; coddling the creative stars	Highly service oriented; customer-comes-first mentality	Cost focused; stresses standardization, predictability, and efficiency

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- “Unbundling the Corporation” John Hagel III and Marc Singer, HBR, March–April 1999

<https://hbr.org/1999/03/unbundling-the-corporation>

Private Banking Case Study



- Traditionally, private banking institutions were vertically integrated and performed tasks ranging from wealth management to brokerage to financial product design:
 - ▶ Outsourcing was costly, and
 - ▶ private banks preferred keeping everything in-house due to **secrecy** and **confidentiality** concerns.
- But secrecy became less of an issue with the **demise of the mystique** surrounding Swiss banking practices, and **outsourcing became attractive** with the breakup of the banking value chain due to the emergence of specialty service providers such as:
 - ▶ **transaction banks**, which focus exclusively on handling banking transactions
 - ▶ **financial product boutiques**, which concentrate solely on designing new financial products.

Private banking unbundling



- Zurich-based private banking institution **Maerki Baumann** is an example of a bank that has unbundled its business model.
 - ▶ It spun its **transaction-oriented platform business** into a **separate entity called Incore Bank**, which does banking services to other banks and securities dealers.
 - ▶ Maerki Baumann now focuses solely on building **Customer Relationships and advising clients**.

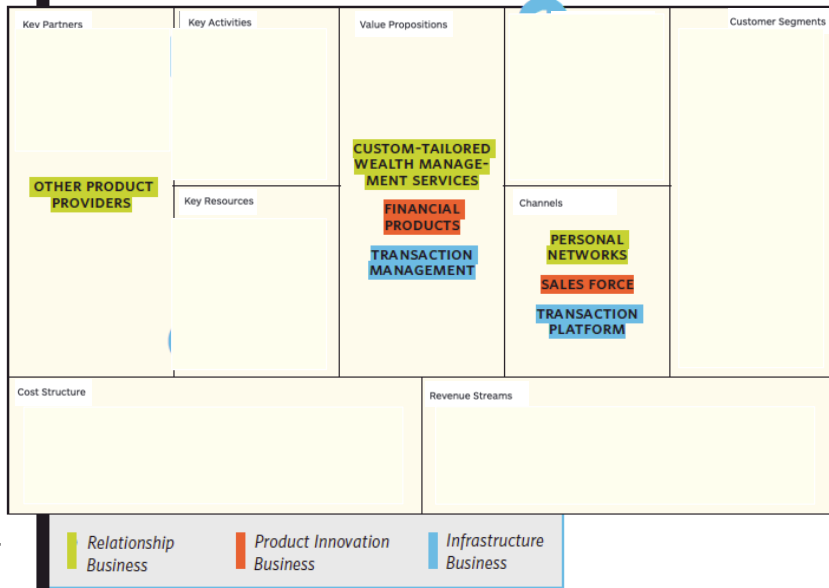
Private banking unbundling



- Geneva-based Pictet, the largest Swiss private bank, has preferred to remain **integrated**.
 - ▶ This 200-year-old institution develops **deep Customer Relationships**, **handles many client transactions**, and **designs its own financial products**.
- Though the bank has been successful with this model, it has to carefully manage **trade-offs** between three fundamentally different types of businesses.

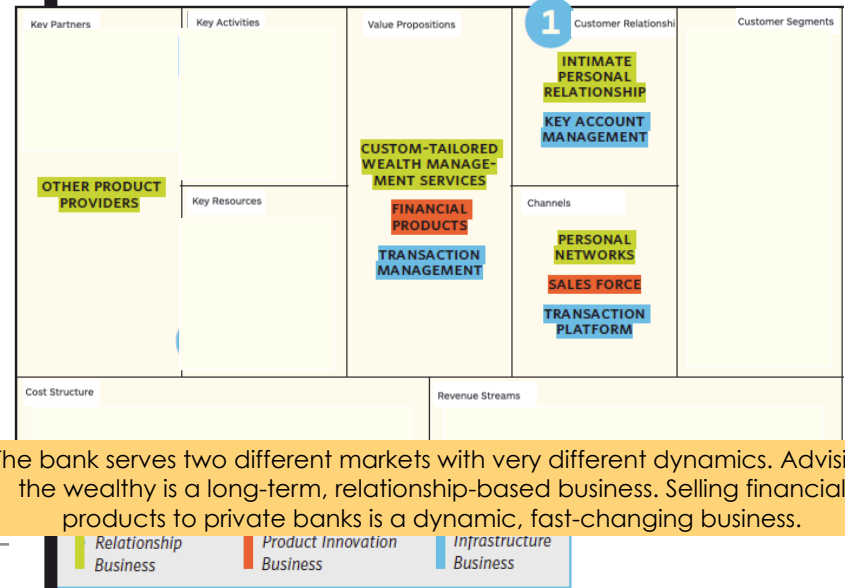
The Private Banking Model

Value Proposition, Channels, Key Partners



The Private Banking Model:

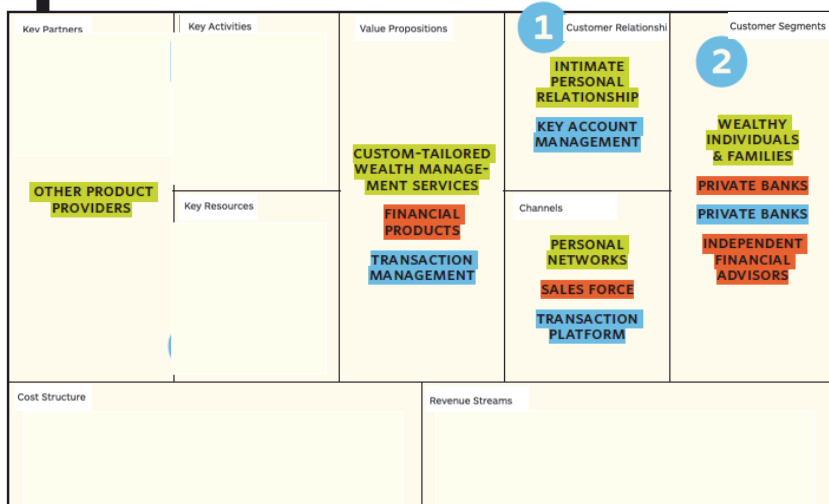
Customer Relationships



The bank serves two different markets with very different dynamics. Advising the wealthy is a long-term, relationship-based business. Selling financial products to private banks is a dynamic, fast-changing business.

The Private Banking Model trade-offs:

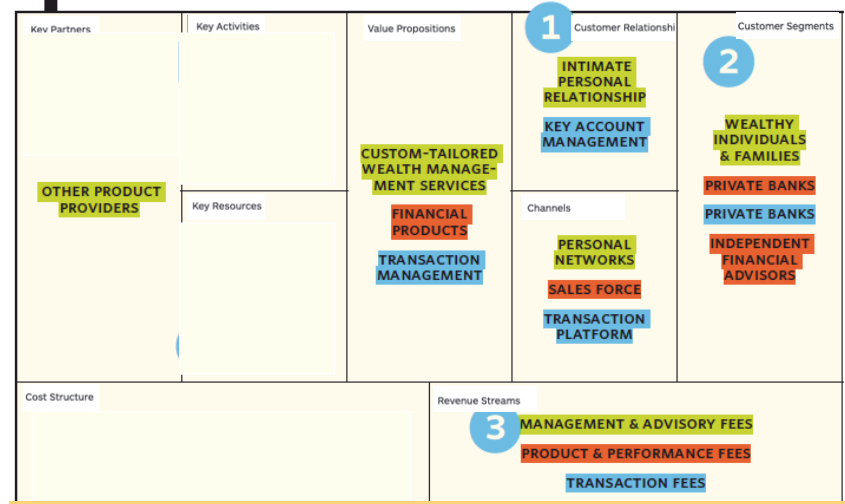
Customer segments



The bank aims to sell its products to competing banks in order to increase revenues—but this creates a conflict of interest.

The Private Banking Model trade-offs:

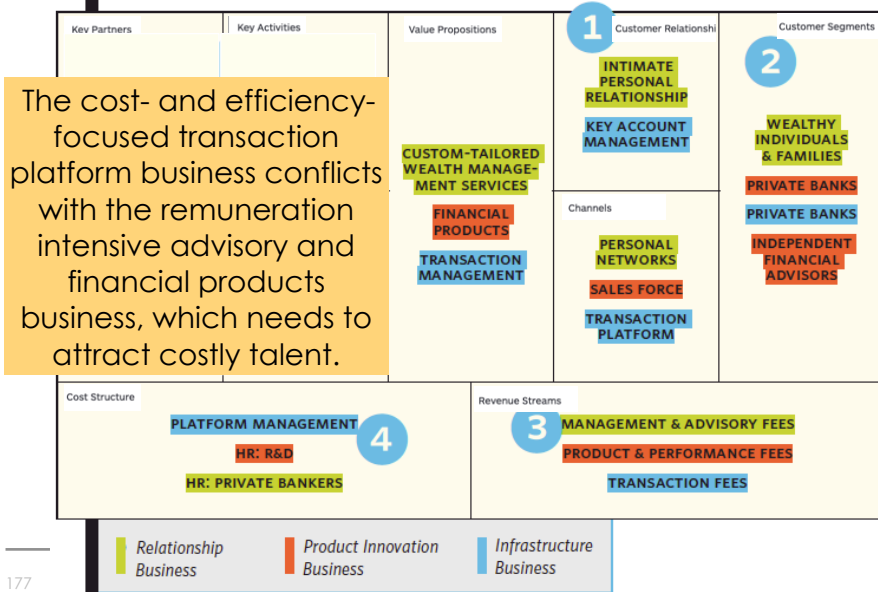
Revenue streams



The bank's product division pressures advisors to sell the bank's own products to clients. This conflicts with client interest in neutral advice. Clients want to invest in the best products on the market, regardless of origin.

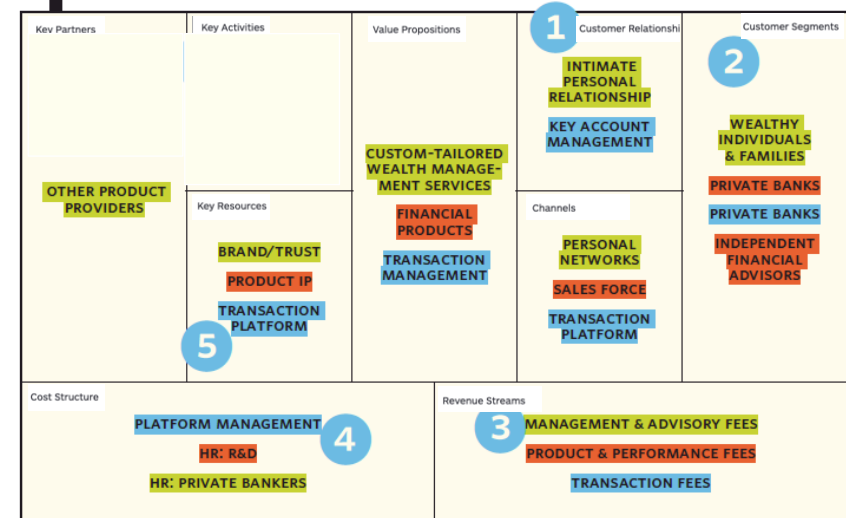
The Private Banking Model trade-offs:

Cost structure



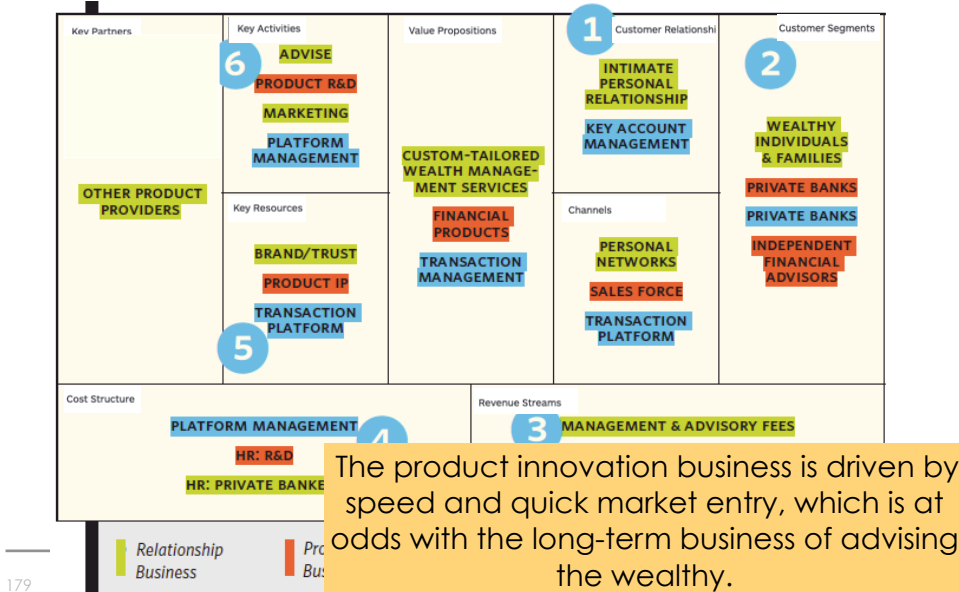
The Private Banking Model trade-offs:

Key resources



The Private Banking Model trade-offs:

Key activities

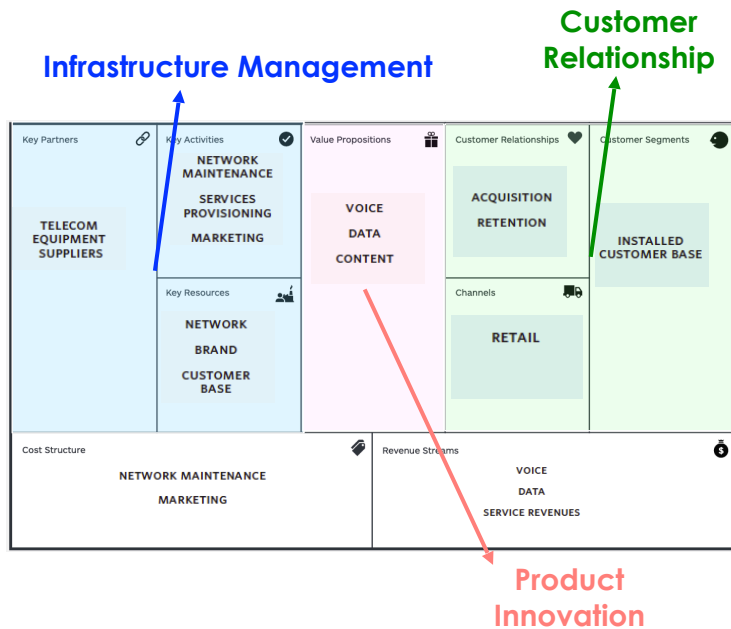


Unbundling the Mobile Telco

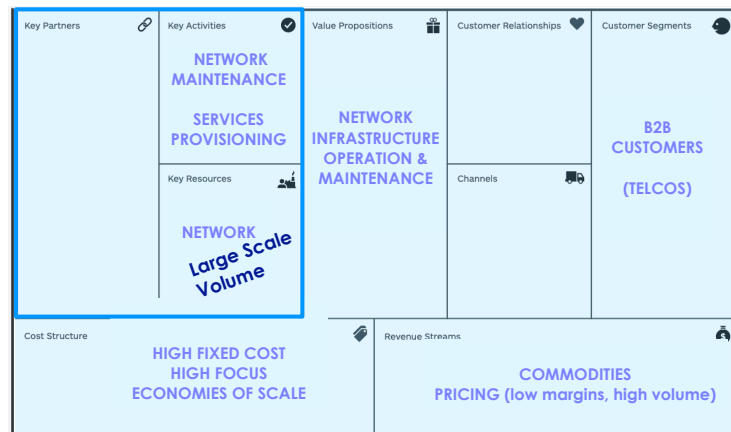


- Mobile telecommunication firms have started unbundling their businesses.
- Traditionally they competed on network quality, but now they are striking network sharing deals with competitors or outsourcing network operations altogether to equipment manufacturers. **Why?**
- Because they realize that their key asset is no longer the network—it is their brand and their Customer Relationships.

Equipment Manufacturers



Equipment Manufacturers

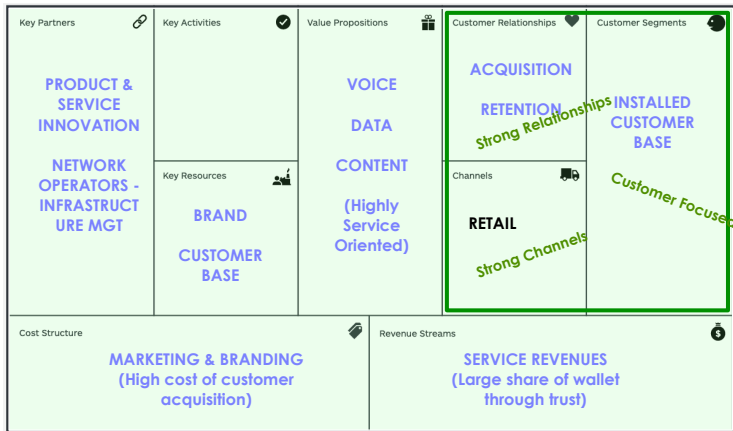


- Telcos such as France Telecom, KPN, and Vodafone have **outsourced operation and maintenance** of some of their networks to equipment manufacturers such as Nokia Siemens Networks, Alcatel-Lucent, and Ericsson.
- Equipment manufacturers **can run the networks at lower cost** because they service several telcos at a time and thus benefit from **economies of scale**.

Unbundled Telco

- After unbundling its infrastructure business, a telco can sharpen its focus on **branding** and **segmenting customers and services**.
- **Customer relationships** comprise its **key asset** and its **core business**.
- By concentrating on customers and increasing share of wallet with current subscribers, it can leverage investments made over the years **acquiring** and **retaining customers**.
- One of the first mobile telcos to pursue strategic unbundling was Bharti Airtel, now one of India's leading telcos.
 - ▶ It outsourced network operations to Ericsson and Nokia Siemens Networks and IT infrastructure to IBM, allowing the company to focus on its core competency: **building Customer Relationships**.

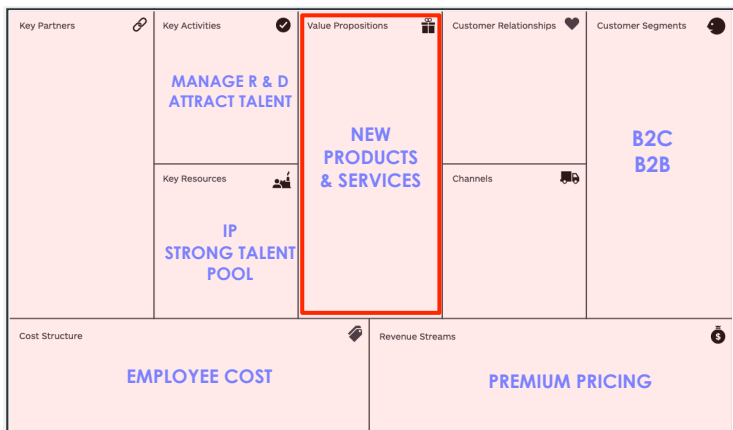
Unbundled Telco



Content Providers

- For **product and service innovation**, the unbundled telco can turn to smaller, creative firms.
- Innovation requires creative talent, which smaller and more dynamic organizations typically do a better job of attracting.
- Telcos work with multiple third-parties that assure a constant supply of new technologies, services, and media content such as mapping, games, video, and music.
- Two examples are Mobilizy of Austria and Sweden's tat.
 - ▶ Mobilizy focuses on location-based service solutions for smartphones (it developed a popular mobile travel guide)
 - ▶ tat concentrates on creating advanced mobile user interfaces.

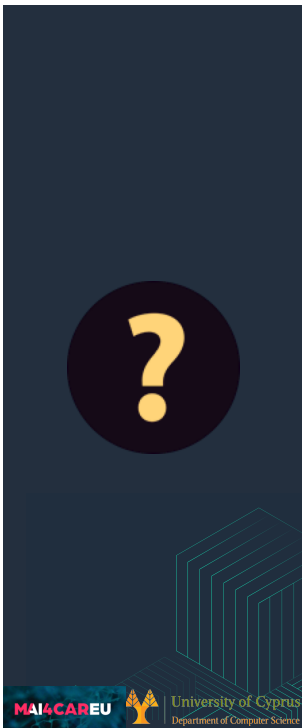
Content Providers



Business Model Patterns



- Unbundled
- **Long Tail**
- Multi-sided
- Free Advertising
- Freemium (RedHat, Skype)
- Open Business Models

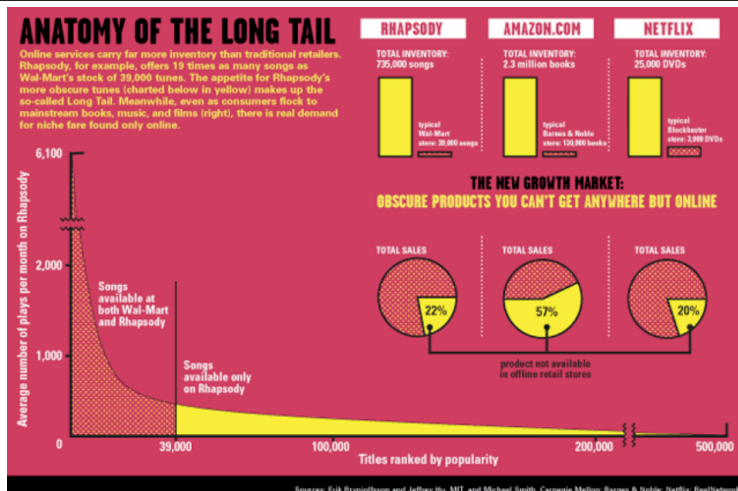


WHAT IS THE LONG TAIL?

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The Long Tail

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<https://www.wired.com/2004/10/tail/>

The Long Tail



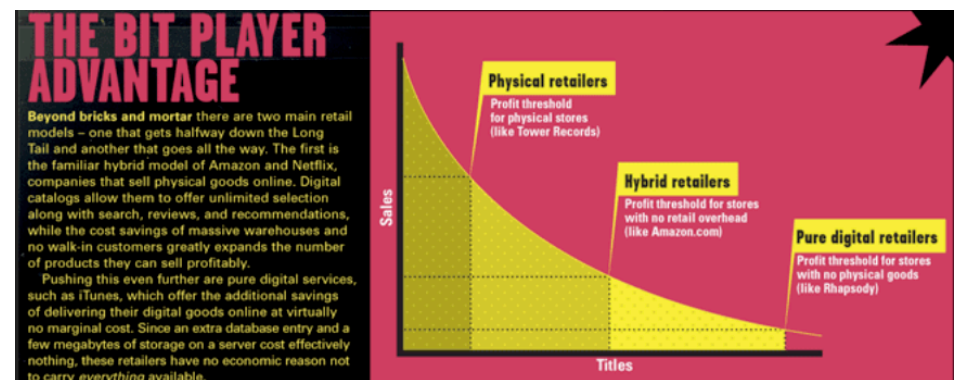
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- Long tail business models are about **selling less of more**.
- They focus on **offering a large number of niche products**, each of which sells relatively **infrequently**.
 - ▶ Aggregate sales of niche items can be as lucrative as the traditional model whereby a small number of bestsellers account for most revenues.
- Long tail business models **require low inventory costs** and **strong platforms** to make niche content readily available to interested buyers.

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The Long Tail

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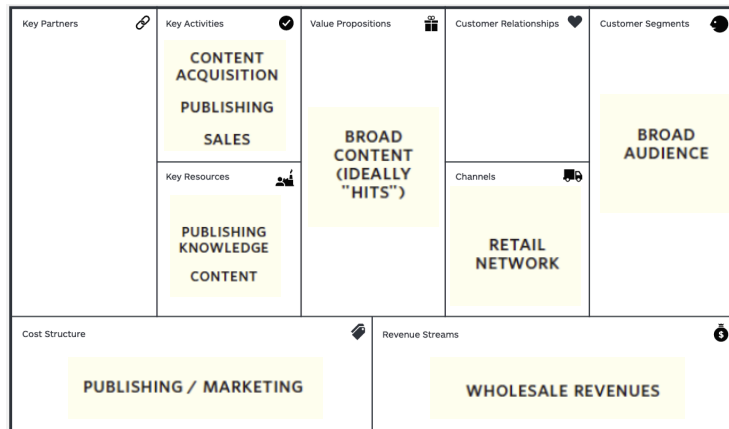
Factors contributing to Long Tail Business Models

- **Democratization of tools of production:** Falling technology costs gave individuals access to tools that were prohibitively expensive just a few years ago. Millions of passionate amateurs can now record music, produce short films, and design simple software with professional results.
- **Democratization of distribution:** The Internet & the Cloud have made digital content distribution a commodity, and dramatically lowered inventory, communications, and transaction costs, opening up new markets for niche products.
- **Falling search costs to connect supply with demand:** The real challenge of selling niche content is finding interested potential buyers. Powerful search and recommendation engines, user ratings, and communities of interest have made this much easier.

The Transformation of the Book Publishing Industry

- The traditional book publishing model is built on a **process of selection** whereby publishers screen many authors and manuscripts and select those that seem most likely to achieve minimum sales targets.
 - ▶ Less promising authors and their titles are rejected because it would be unprofitable to copyedit, design, print, and promote books that sell poorly.
 - ▶ Publishers are most interested in books they can print in **quantity** for sale to **large audiences**.

The Old Model



The New Model

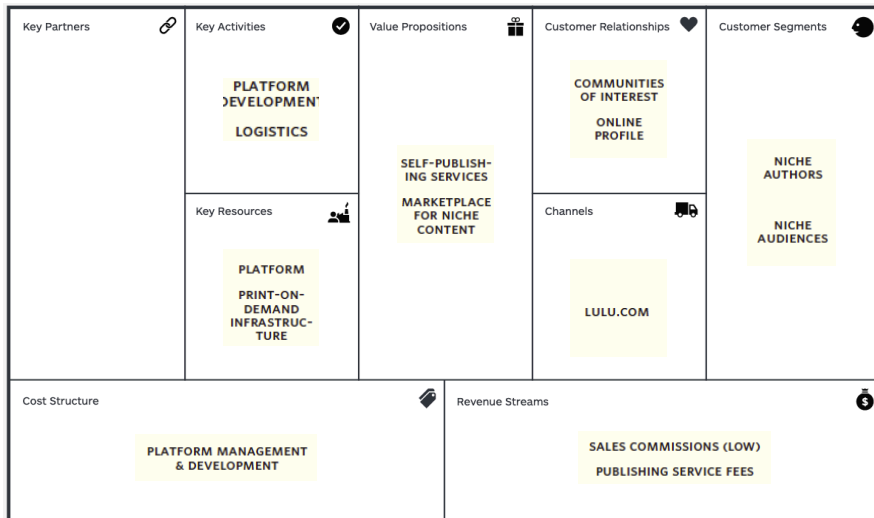


- Lulu.com turned the traditional bestseller-centric publishing model on its head by **enabling anyone to publish**.
- Lulu.com's business model is based on **helping niche and amateur authors bring their work to market**.
- It eliminates traditional entry barriers by providing authors the tools to craft, print, and distribute their work through an online marketplace.
- This contrasts strongly with the traditional model of selecting "market-worthy" work.
 - ▶ The more authors Lulu.com attracts, the more it succeeds, because authors become customers.
- Lulu.com is a **multi-sided platform** that serves and connects authors and readers with a Long Tail of user-generated niche content.
 - ▶ This works because books are printed only in response to actual orders.
 - ▶ The failure of a particular title to sell is irrelevant to Lulu.com, because such a failure incurs no costs.

The New Model



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LEGO's Digital Designer



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- Using software called **LEGO Digital Designer**, customers can:
 - ▶ Invent and design their own buildings, vehicles, themes, and characters, choosing from thousands of components and dozens of colors.
 - ▶ Design the box containing the customized kit.
- With LEGO Factory, LEGO turned passive users into active participants in the LEGO design experience.
 - ▶ This requires transforming the supply chain infrastructure, and because of low volumes LEGO has not yet fully adapted its support infrastructure to the new LEGO Factory model.
 - ▶ Instead, it simply tweaked existing resources and activities.

LEGO's Long Tail



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- Intensifying competition in the toy industry forced LEGO to seek innovative new paths to growth:
 - ▶ **Licensing** the rights to use characters from blockbuster movies such as Star Wars, Batman, and Indiana Jones. While such licensing is expensive, it proved to be an impressive revenue generator.
 - ▶ In 2005 LEGO started experimenting with **user-generated content**. It introduced LEGO Factory, which allows customers to assemble their very own LEGO kits and order them online.

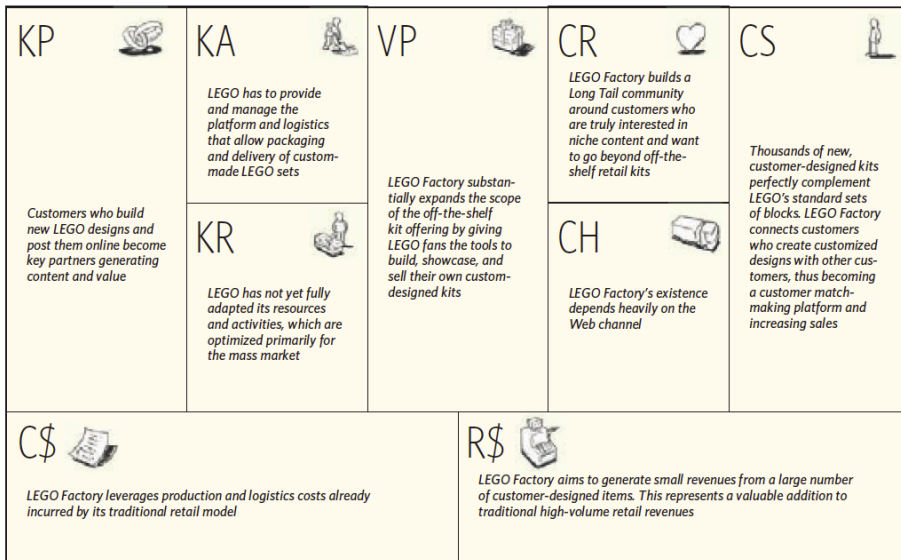
LEGO's Business Model



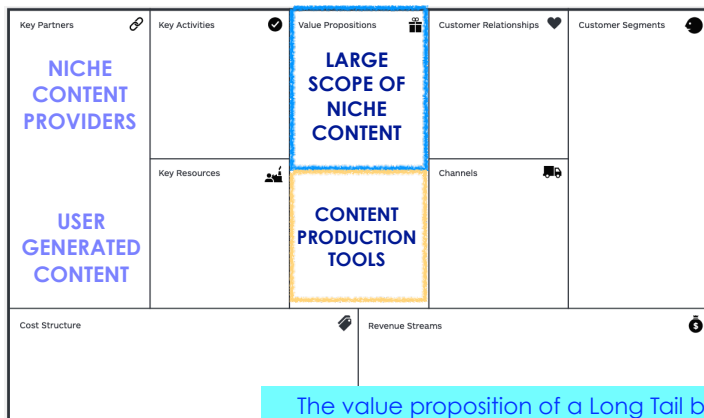
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- LEGO took a step *beyond mass customization* by entering Long Tail territory.
- In addition to helping users design their own LEGO sets, LEGO Factory **sells user-designed sets online**.
- What's important for LEGO is that the **user-designed sets expand a product line** previously focused on a **limited number of best-selling kits**:
 - ▶ A first step towards implementing a Long Tail model as a complement—or even alternative—to a traditional mass-market model.

LEGO Factory: Customer-Designed Kits

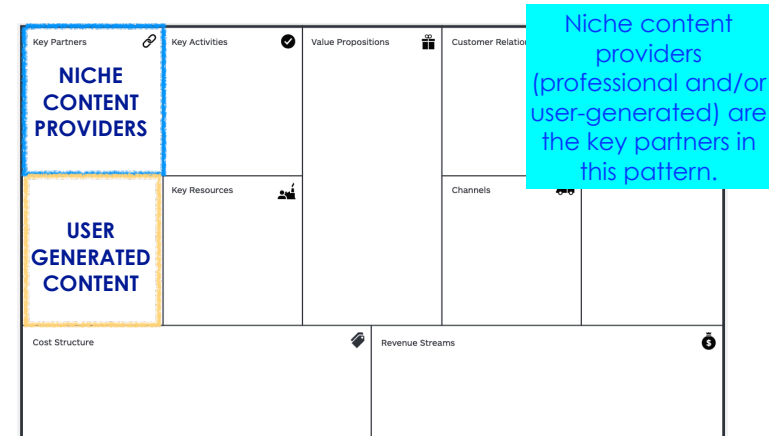


The Long Tail Pattern

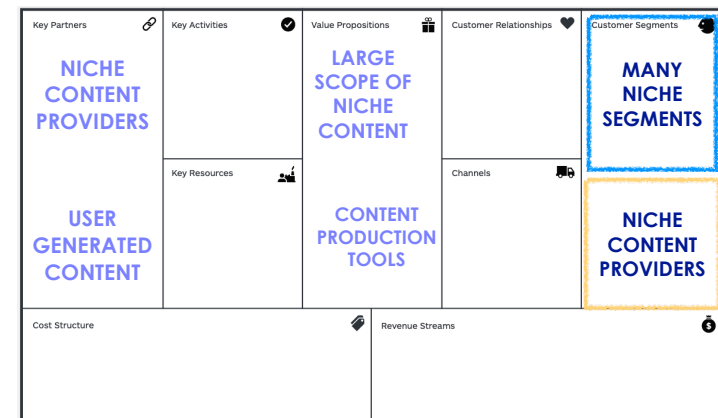


The value proposition of a Long Tail business model is characterized by offering a wide scope of "non-hit" items that may co-exist with "hit" products. Long Tail business models may also facilitate and build on user-generated content.

The Long Tail Pattern

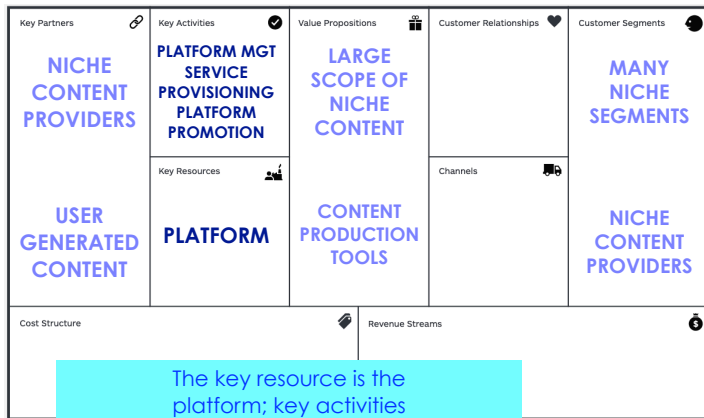


The Long Tail Pattern



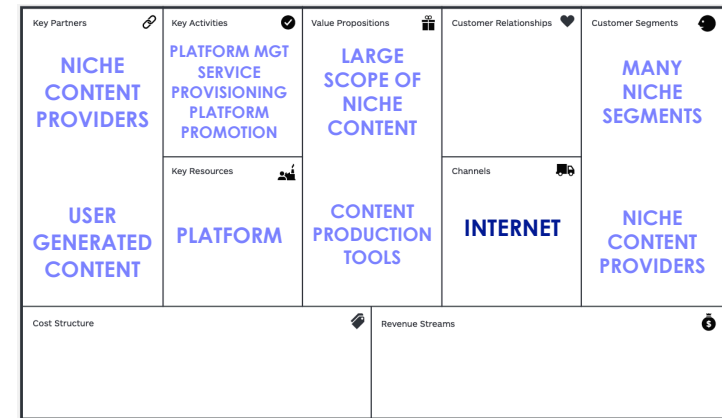
Long Tail business models focus on niche customers.

The Long Tail Pattern



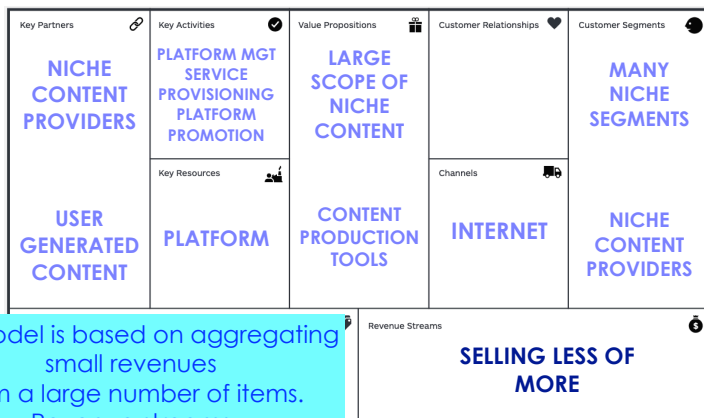
The key resource is the platform; key activities include platform development and maintenance and niche content acquisition and production.

The Long Tail Pattern



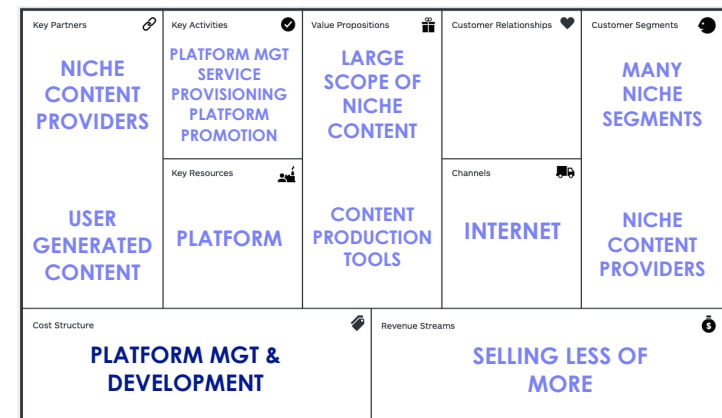
Long Tail business models usually rely on the Internet as a customer relationship and/or transaction channel.

The Long Tail Pattern



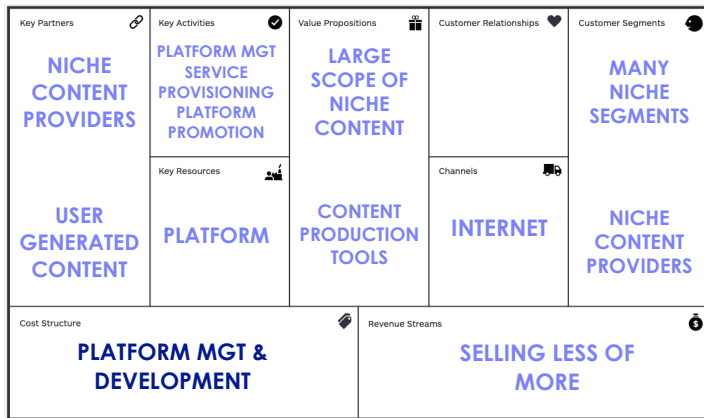
This model is based on aggregating small revenues from a large number of items. Revenue streams vary; they may come from advertising, product sales, or subscriptions.

The Long Tail Pattern



The main costs incurred cover platform development and maintenance.

The Long Tail Pattern



Multi-sided platforms



- Multi-sided platforms **bring together two or more distinct but interdependent groups of customers.**
- Such platforms **are of value** to one group of customers **only if the other groups of customers are also present.**
- The platform **creates value by facilitating interactions** between the different groups.
- A multi-sided platform **grows in value to the extent that it attracts more users**, a phenomenon known as the **network effect**.

Business Model Patterns



- Unbundled
- Long Tail
- **Multi-sided**
- Free Advertising
- Freemium (RedHat, Skype)
- Open Business Models

Multi-sided platforms



- Known by economists as **multi-sided markets**, are an important business phenomenon that has existed for a long time
- Proliferated with the rise of **information technology**.
- Examples:
 - ▶ Visa credit card
 - ▶ Microsoft Windows operating system
 - ▶ Financial Times
 - ▶ Google
 - ▶ Wii and PSP game consoles,
 - ▶ Facebook etc
- They represent an increasingly important business model pattern.

Multi-sided platforms



- They create **value as intermediaries** by connecting these groups:
 - ▶ Credit cards, for example, link merchants with cardholders;
 - ▶ computer operating systems link hardware manufacturers, application developers, and users;
 - ▶ Newspapers link readers and advertisers;
 - ▶ Video gaming consoles link game developers with players.
- The key is that the **platform must attract and serve all groups simultaneously** in order to create **value**.

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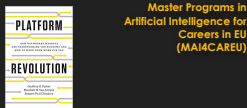
Multi-sided platforms



- The platform's **value** for a particular user group depends substantially on the **number of users on the platform's "other sides."**
- One way multi-sided platforms solve this problem is by **subsidizing** a Customer Segment.
 - Though a platform operator incurs costs by serving all customer groups, it often decides to lure one segment to the platform with an inexpensive or free Value Proposition in order to subsequently attract users of the platform's "other side."
- One difficulty multi-sided platform operators face is understanding which side to subsidize and how to price correctly to attract customers.

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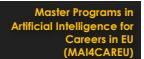
Key questions



- Operators of multi-sided platforms must ask themselves:
 - ▶ Can we attract **sufficient numbers of customers** for **each side** of the platform?
 - ▶ Which side is more **price sensitive**? Can that side be enticed by a subsidized offer?
 - ▶ Will the other side of the platform generate **sufficient revenues** to cover the subsidies?

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Google's business model



- Prior to Google, the business model or "value capture framework" of search engines was to fit as many banner advertisements on a page as possible, and to charge as much as possible for them.
- Google, used simple text ads and targeted them based on the keywords used in a particular search.
- Advertisers found this technique more attractive than banner ads, because they had better data on the effectiveness of individual ads, and could make more effective ads based on the data.
 - ▶ This **highly innovative business model** is what made Google the juggernaut it is today, not the technical proficiency of its search algorithm.
- Ironically, this idea of commercially viable contextual search was not Google's but rather came from **Overture**, which was the first to bring to the commercial market a credible keyword-based advertising solution under the name of **GoTo.com**.
 - ▶ Google simply embraced the idea more enthusiastically and executed a rollout plan that made it the de facto leader in online advertising.

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Google's business model



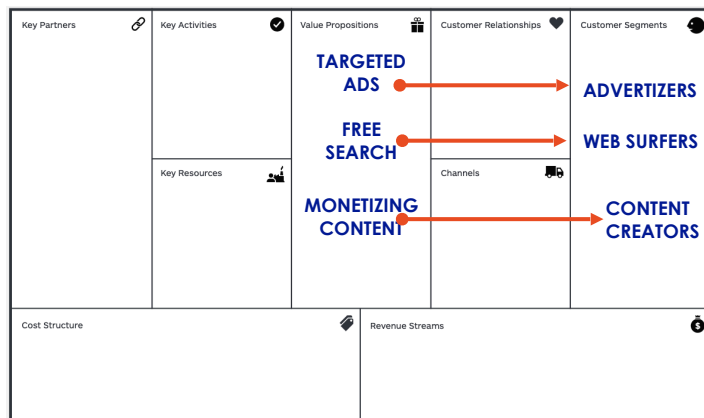
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- The heart of Google's business model is its Value Proposition of **providing extremely targeted text advertising globally over the Web.**
- Through a service called **AdWords**, advertisers can publish advertisements and sponsored links on Google's search pages (and on an affiliated content network as we will later see).
- The ads are displayed alongside search results when people use the Google search engine.
- Google ensures that only ads relevant to the search term are displayed.
- The service is attractive to advertisers because it allows them to tailor online campaigns to specific searches and particular demographic targets.
- The model only works, though, if many people use Google's search engine. The more people Google reaches, the more ads it can display and the greater the value created for advertisers.

Google's Business Model



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Google's business model



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- Google's Value Proposition to advertisers depends heavily **on the number of customers it attracts to its Web site.**
- So Google caters to this second group of consumer customers with a powerful search engine and a growing number of tools such as Gmail (Web based e-mail), Google maps, etc.
- To extend its reach even further, Google designed a third service that enables its ads to be displayed on other, non- Google Web sites.
- This service, called **AdSense**, allows third parties to earn a portion of Google's advertising revenue by showing Google ads on their own sites.
- AdSense automatically analyzes a participating Web site's content and displays relevant text and image ads to visitors. The Value Proposition to these third party Web site owners, Google's third Customer Segment, is to enable them to earn money from their content.

Google's Revenue Model



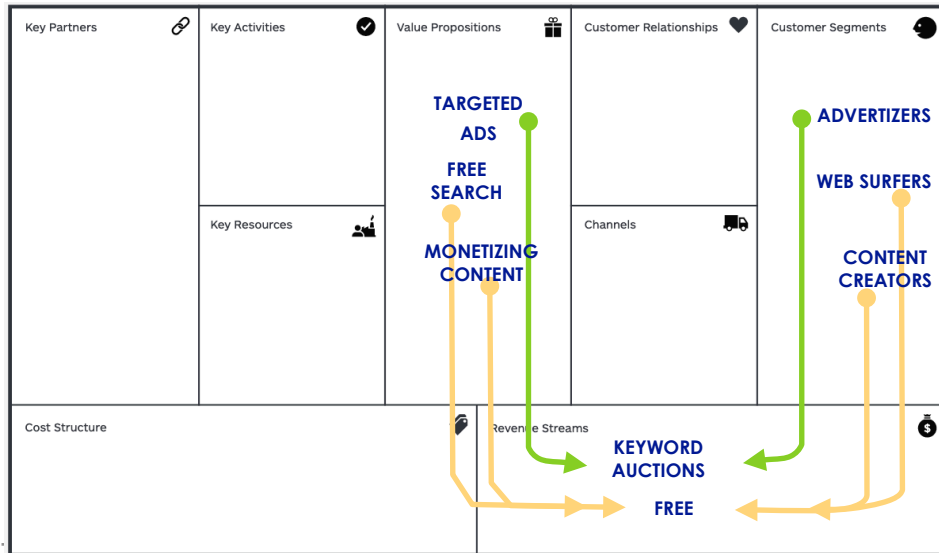
Master Programs in Artificial Intelligence for Careers in EU (MAIACAREU)

- As a multi-sided platform Google has a very distinct revenue model:
 - ▶ It makes money from one Customer Segment, **advertisers**, while subsidizing free offers to two other segments: **Web surfers** and **Content owners**.
- This is logical because **the more ads** it displays to Web surfers, the **more it earns from advertisers**.
- **Increased advertising earnings**, in turn, motivates **even more content owners to become AdSense partners**.
- Advertisers don't directly buy advertising space from Google. They bid on ad-related keywords associated with either search terms or content on third party Web sites.
- The bidding occurs through an **AdWords auction service**: the more popular a keyword, the more an advertiser has to pay for it.
- The substantial revenue that Google earns from AdWords allows it to continuously improve its free offers to search engine and AdSense users.

Google's Revenue Model



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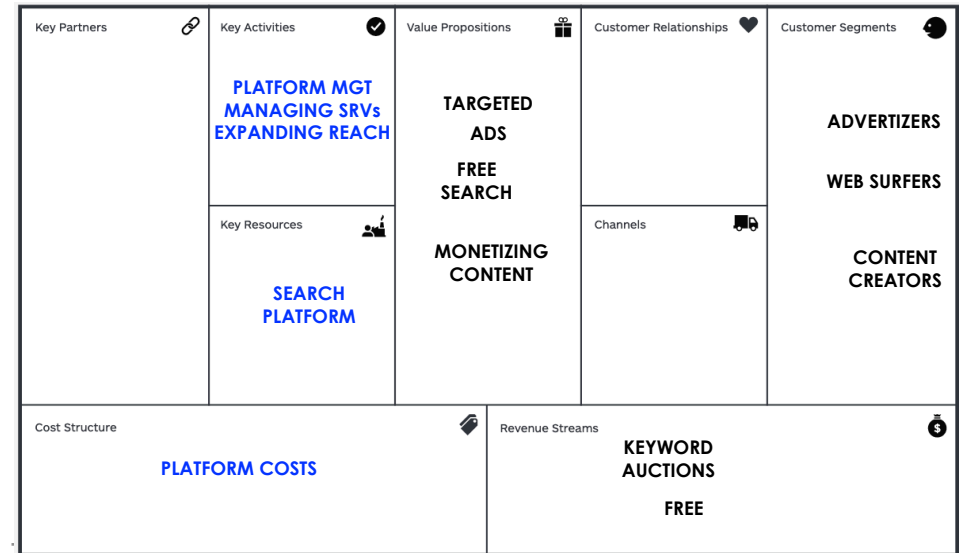


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Google's Key Resources



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Apple's Evolution into a Platform Operator

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Apple introduced the iPod in 2001 as a stand-alone product. Users could copy their CDs and download music from the Internet onto the device. The iPod represented a technology platform for storing music from various sources. At this point, though, Apple was not exploiting the platform aspect of the iPod in its business model.

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Apple's Evolution into a Platform Operator

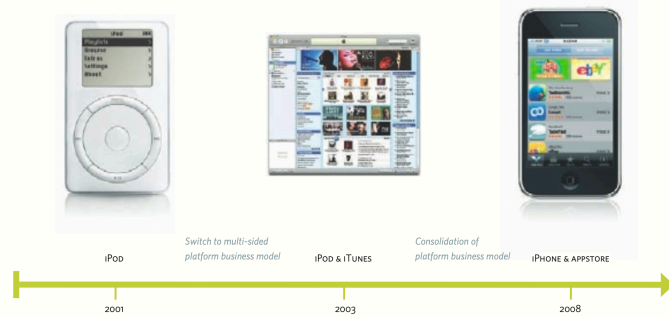
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In 2003 Apple introduced the iTunes Music Store, which was closely integrated with the iPod. The store allowed users to buy and download digital music in an extremely convenient way. The store was Apple's first attempt at exploiting platform effects. iTunes essentially connected "music rightsholders" directly with buyers. This strategy catapulted Apple to its position today as the world's largest online music retailer.

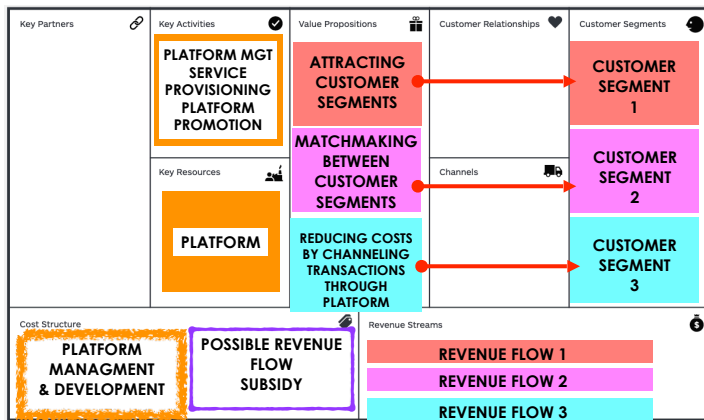
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Apple's Evolution into a Platform Operator



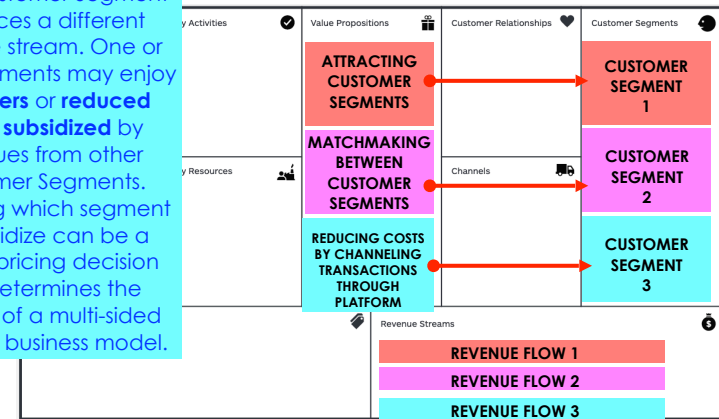
In 2008 Apple consolidated its platform strategy by launching its App Store for the highly popular iPhone. The App Store allows users to browse, buy, and download applications directly from the iTunes Store and install them on their iPhones. Application developers must channel sales of all applications through the App Store, with Apple collecting a 30 percent royalty on each application sold.

Multi-sided platform pattern



Multi-sided platform pattern

Each Customer Segment produces a different revenue stream. One or more segments may enjoy free offers or reduced prices subsidized by revenues from other Customer Segments. Choosing which segment to subsidize can be a crucial pricing decision that determines the success of a multi-sided platform business model.



Business Model Patterns



- Unbundled
- Long Tail
- Multi-sided
- Free Advertising
- Freemium (RedHat, Skype)
- Open Business Models

Free is King

- Any marketer or economist will confirm that the demand generated at a price of zero is many times higher than the demand generated at one cent or any other price point.

- «Σαν το μούχτι εν εσσει»

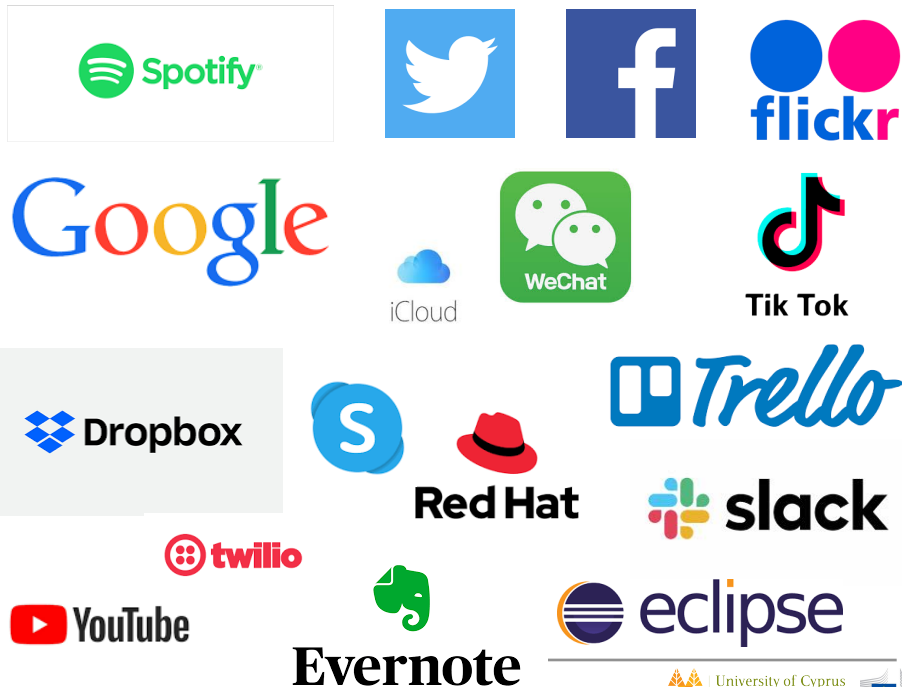


Free as Business Model

- In the free business model at least one substantial Customer Segment is able to continuously benefit from a free-of-charge offer.
- Non-paying customers are financed by another part of the business model or by another Customer Segment.
- In recent years, free offers have exploded, particularly over the Internet.

Free as a Business Model

- The question, of course, is how can you systematically offer something for free and still earn substantial revenues?
- Part of the answer is that the cost of producing certain giveaways, such as online data storage capacity, has fallen dramatically.
- To make a profit, an organization offering free products or services must still generate revenues somehow.



Free as a business model

- The rise of new free-of-charge offers is closely related to the fundamentally different economics of digital products and services.
 - ▶ For example, creating and recording a song costs an artist time and money, but the cost of digitally replicating and distributing the work over the Internet is **close to zero**.
 - ▶ Hence, an artist can promote and deliver music to a global audience over the Web, as long as he or she finds other Revenue Streams, such as concerts and merchandising, to cover costs.

Advertising: A Multi-Sided Platform Model - Metro Newspaper Case Study

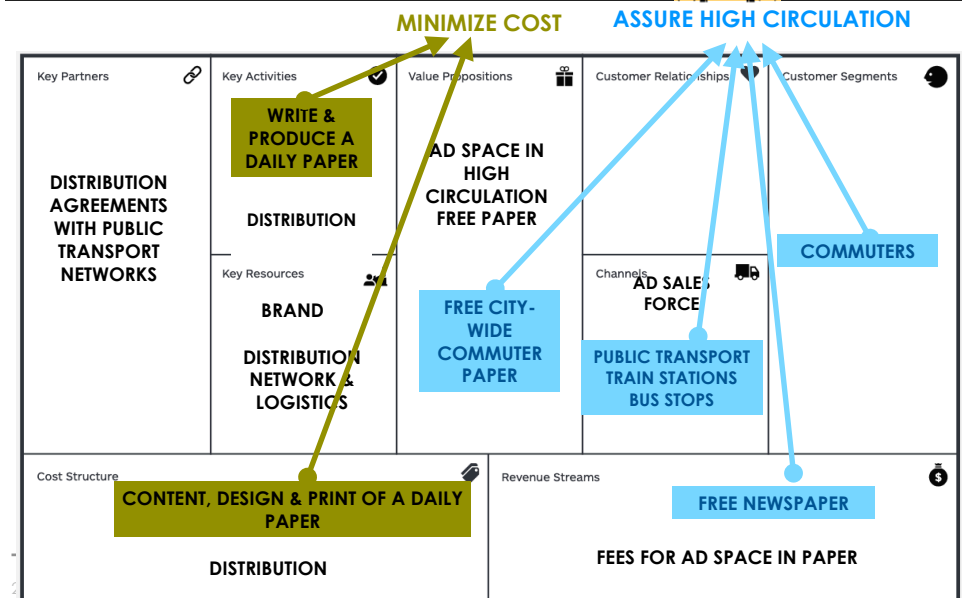



- **Metro** is a free newspaper that started in Stockholm and is now available in dozens of cities around the world.
- Metro modified the traditional daily newspaper model:
 1. It offered the paper for **free**.
 2. It focused on distributing in **high-traffic commuter zones and public transport networks** by hand and with **self-service racks**. This required Metro to develop its own distribution network, but enabled the company to **quickly achieve broad circulation**.
 3. It **cut editorial costs** to produce a paper just good enough to entertain younger commuters during their short rides.

Free Business Model patterns

- There are several patterns that make integrating free products and services into a business model possible. The most common are:
 - ▶ Free offer based on multi-sided platforms: **advertising-based**.
 - ▶ Free basic services with optional premium services: the so-called **“freemium”** model.
 - ▶ The **“bait & hook”** model whereby a free or inexpensive initial offer lures customers into repeat purchases.

Metro Business Model



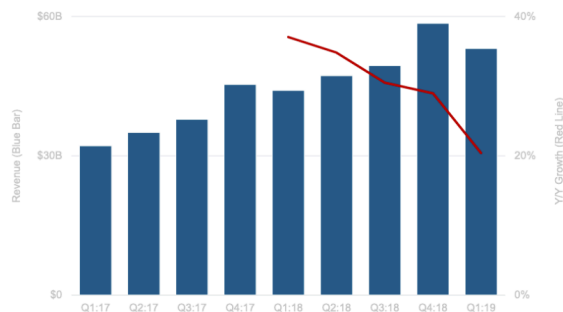
Beware

- A large number of users does not automatically translate into strong advertising revenues, as the social networking service Facebook has demonstrated.
 - ▶ The company claimed over 200 million active users as of May 2009, and said more than 100 million log on to its site daily.
 - ▶ Yet users were less responsive to Facebook advertising than to traditional Web ads, according to industry experts.
 - ▶ While advertising is only one of several potential Revenue Streams for Facebook, clearly a mass of users did not guarantee huge advertising revenues (circa 2010).

Facebook: today?

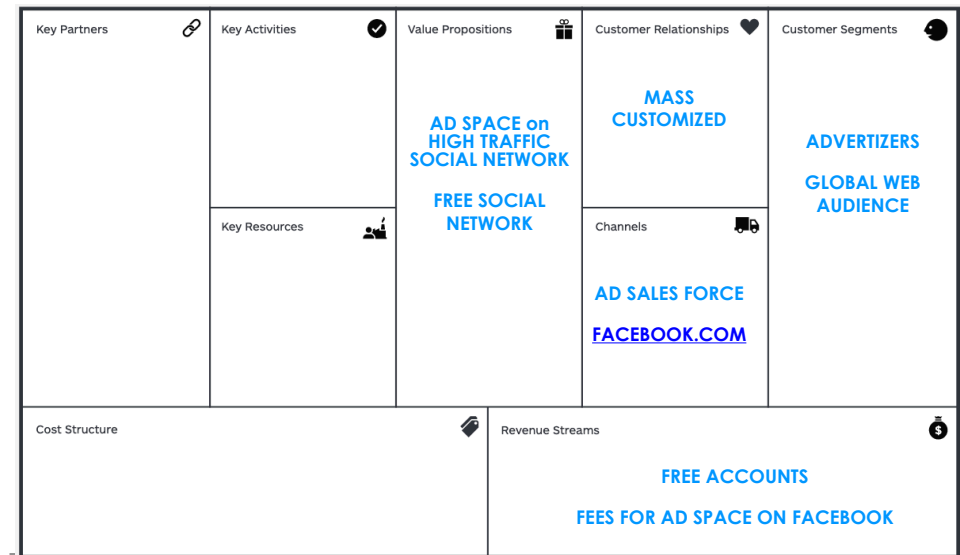
Internet Ad Revenue (Quarterly – Leading USA Platforms) = Decelerating +20% vs. +29% (Y/Y – Q1 vs. Q4)

Leading USA-Based Online Ad Platform Revenue, Global



Source: Mary Meeker, Internet Trends Report 2019.

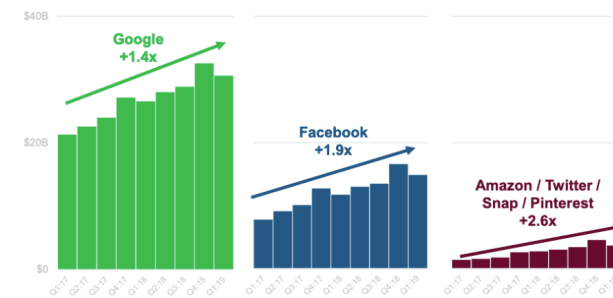
Facebook (2010)



Facebook: today?

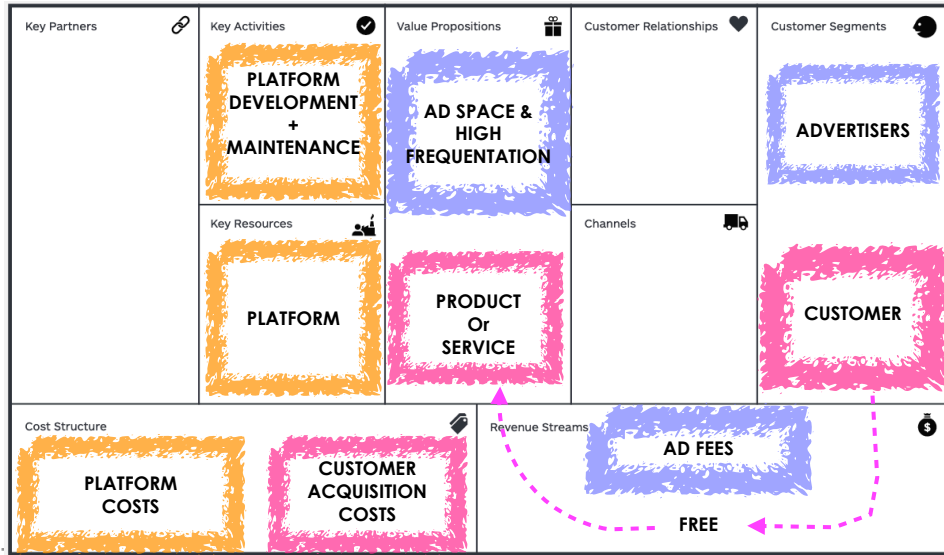
Internet Ad Platforms = Google + Facebook Lead But Others Gaining Share

Select USA-Based Advertising Platform Revenue, Global



Source: Mary Meeker, Internet Trends Report 2019.

Free Advertising Pattern

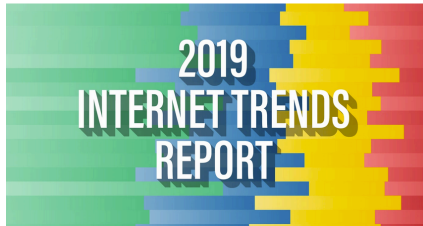


Ad evolution

Ad Share Gain Drivers = Better Targeting + New Creative + Commerce + High-Relevance

Facebook	YouTube	Pinterest	Twitter
Targeting Audience Customization	Machine Learning Automatically Time-Edited Clips	Commerce Shoppable Catalogs	High-Relevance Promoted Tweets

Source: Mary Meeker, Internet Trends Report 2019.



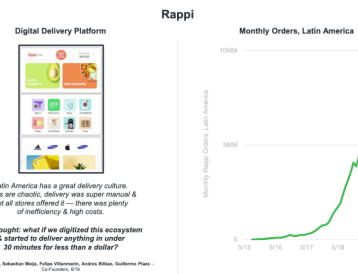
BOND

INTERNET TRENDS 2019

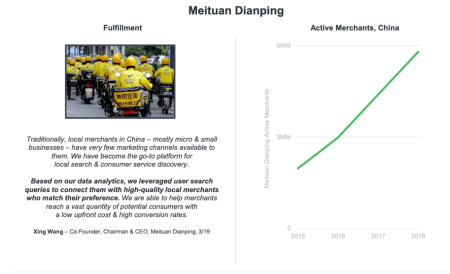
Mary Meeker

June 11 @ Code 2019

Latin America (Rappi) = Digitizing Delivery...
8MM Orders + ~2x in Four Months



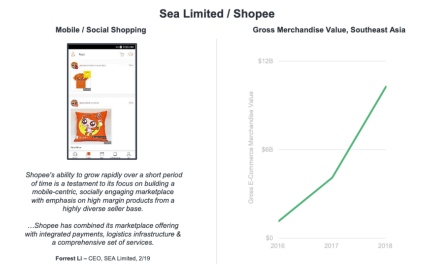
China (Meituan Dianping) = Connecting Consumers & Local Businesses...
~6MM Merchants + ~2x in Two Years



China (Pinduoduo) = Connecting Consumer Preferences & Manufacturers...
443MM Buyers + ~2x in Five Quarters



Southeast Asia (Shopee) = Mobile-First Social Commerce...
\$10B in Gross Merchandise Value + ~2x in One Year

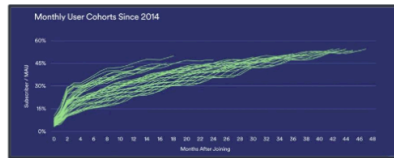


Freemium

- The term “freemium” was coined by Jarid Lukin and popularized by venture capitalist Fred Wilson on his blog.
- It stands for business models that **blend free basic services with paid premium services**.
- The freemium model is characterized by a **large user base** benefiting from a free, no-strings-attached offer.
- Most of these users never become paying customers; only a small portion, **usually less than 10 percent of all users, subscribe to the paid premium services**.
 - ▶ This small base of paying users subsidizes the free users.
 - ▶ This is possible because of the low marginal cost of serving additional free users.
- In a freemium model, the key metrics to watch are:
 1. the **average cost of serving a free user**, and
 2. the **rates** at which free users **convert** to premium (paying) customers.

Happy Customers... Spotify = Free User Conversion to Paid Subscribers...

Free Ad-Supported Product...

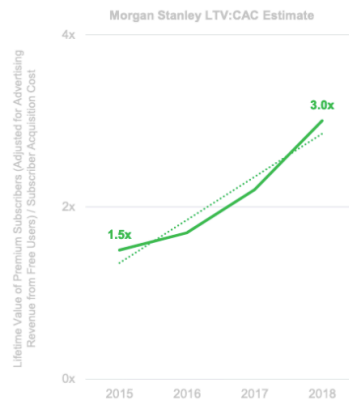


Our freemium model accounts for ~60% of our gross added premium subscribers... the ad-supported service is a subsidy program that offsets costs of new subscriber acquisition.

Developing a better user experience produces by far the most viral effect & impact when investing in growth. Engagement drives conversion from free consumption to paid subscription.

Barry McCarthy – CFO, Spotify, 3/18

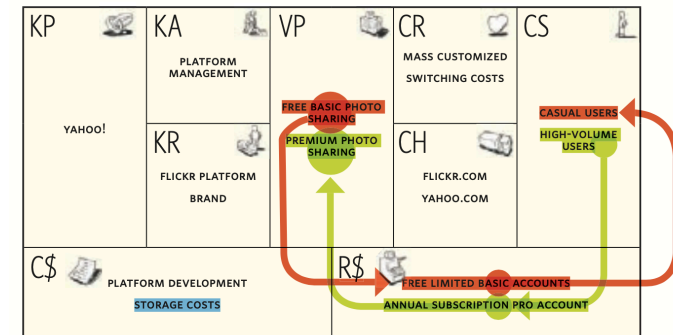
...Rising LTV / Subscriber Acquisition Cost Ratio



Source: Spotify note calculating the net subscriber cost. **Source: Mary Meeker, Internet Trends Report 2019.**

Flickr

Flickr



Fixed and sunk costs related to platform development
Variable cost depending on number of photos stored

Large base of basic accounts for casual users
Small base of paying "pro" users

Enterprise Business Software

- Typical characteristics:
 - ▶ A **high fixed cost** of supporting an army of expert software developers who build the product;
 - ▶ A revenue model based on **selling multiple per-user licenses** and **regular upgrades** of the software.

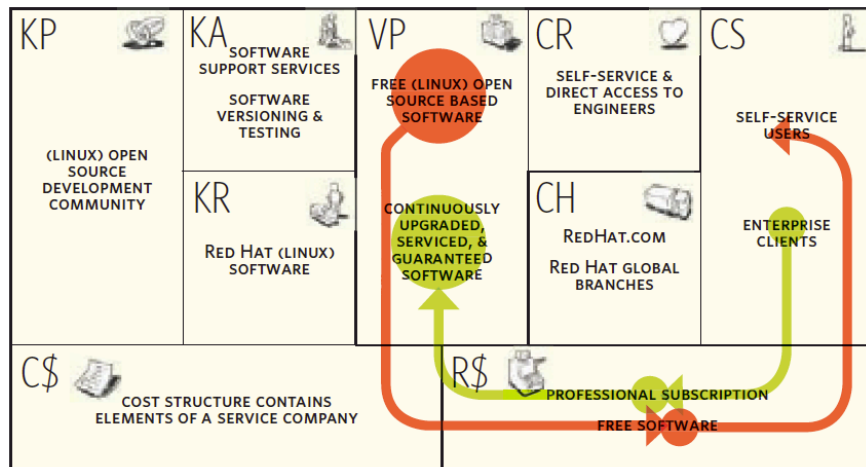
Open Source Software



- OSS is a type of computer software in which source code is released under a license in which **the copyright holder grants users the rights to study, change, and distribute the software to anyone and for any purpose.**
- Open-source software:
 - ▶ may be developed in a collaborative public manner
 - ▶ is a prominent example of open collaboration



Red Hat Case Study



Red Hat Case Study



- Red Hat, a U.S. software company, builds its product on top of open source software.
- Red Hat understood that companies were **interested in robust, licensing fee-free open source software**, but were reluctant to adopt it due to **concerns that no single entity was legally responsible for providing and maintaining it.**
- Red Hat filled this gap by offering stable, tested, service-ready versions of freely available open source software, particularly Linux. Each Red Hat release is **supported for seven years.**
- Benefits:
 - ▶ Customers enjoy the **cost and stability advantages of open source software**, while protecting them from the uncertainties surrounding a product not officially "owned" by anyone.
 - ▶ Red Hat software kernel is continuously improved by the open source community free of charge. This substantially **reduces Red Hat's development costs.**
- **Revenue Model:** For an annual fee, each client enjoys continuous access to the latest Red Hat release, unlimited service support, and the security of interacting with the legal owner of the product.
 - ▶ Companies are willing to pay for these benefits despite the free availability of many versions of Linux and other open source software.

Skype Case Study



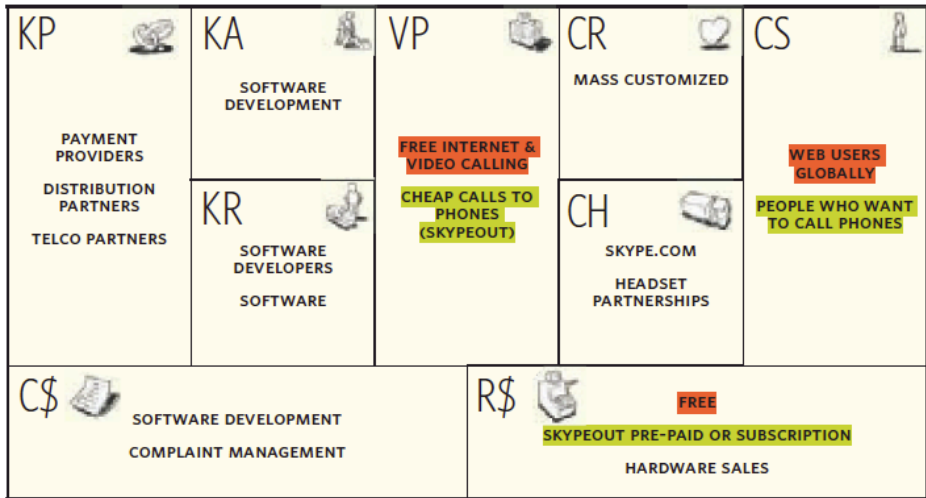
- Skype disrupted the telecommunications sector by enabling **free calling services via the Internet** through software developed that, when installed on computers or smartphones, enables users to make calls from one device to another **free of charge.**
- How is this possible?
 - ▶ Skype has a **Cost Structure** that is completely different from that of a telecom carrier.
 - ▶ Free calls are fully routed through the Internet based on so-called peer-to-peer technology that employs user hardware and the Internet as communications infrastructure.
 - ▶ Hence, **Skype does not have to manage its own network like a telco** and incurs only **minor costs to support additional users.** Skype requires very little of its own infrastructure besides backend software and the servers hosting user accounts.
- Users pay only for calling landlines and mobile phones through a **premium service** called SkypeOut, which offers very low rates.
- In fact, users are charged only slightly more than the termination costs that Skype itself incurs for calls routed through wholesale carriers such as iBasis and Level 3, which handle the company's network traffic.

Skype Business Model

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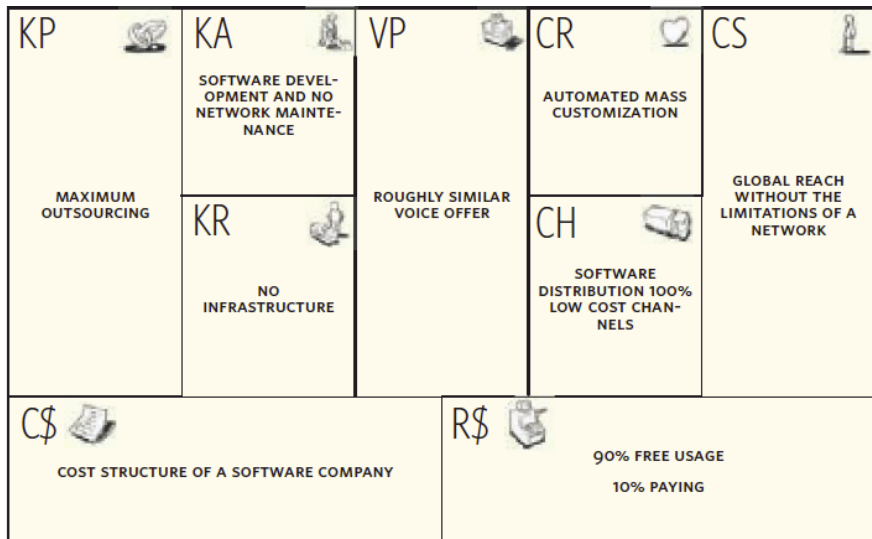
Over 90 percent of Skype users subscribe to the free service

Paid SkypeOut calls account for less than 10 percent of total usage



Skype vs traditional telcos

Master Programs in Artificial Intelligence for Careers in EU (MAIACAREU)



Skype vs traditional telcos

Master Programs in Artificial Intelligence for Careers in EU (MAIACAREU)

- Skype disrupted the telecommunications industry and helped drive voice communication costs close to zero.
- Telecom operators initially didn't understand why Skype would offer calls for free and didn't take the company seriously.
- Initially, only a tiny fraction of the traditional carriers' customers used Skype.
- But over time more and more customers decided to make their international calls with Skype, eating into one of the most lucrative carrier revenue sources.
- This pattern, typical of a disruptive business model, severely affected the traditional voice communication business, and in 2010 Skype was the world's largest provider of cross-border voice communication services.

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Microsoft Near Deal to Acquire Skype

Software Giant Could Pay Nearly \$8 Billion for Company

By Anupreeta Das And Nick Wingfield

Updated May 10, 2011 12:01 am ET

Microsoft Corp. is close to a deal to buy Internet phone company Skype Technologies SA for between \$7 billion and \$8 billion—the most aggressive move yet by Microsoft to play in the increasingly-converged worlds of communication, information and entertainment.

A deal could be announced as early as Tuesday, people familiar with the matter...

MOST POPU

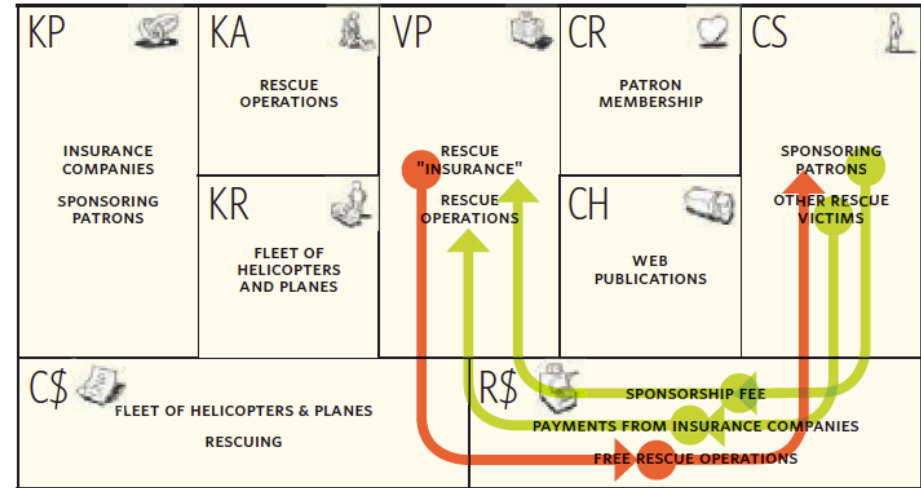
1. AirPods Test: Hi They St
2. Biden: t Securin

The Insurance Model: Freemium Upside Down

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- A large base of paying customers subsidizes a small group of people with actual claims—but any one of the paying customers could at any time become part of the beneficiary group.
- REGA is a Swiss non-profit organization that uses helicopters and airplanes to transport medical staff to the scene of accidents, notably in the mountainous areas of Switzerland.
- Over two million so-called “patrons” finance the organization.
- In return, patrons are exempt from paying any costs arising from being rescued by REGA.
- Mountain rescue operations can be extremely expensive, so REGA patrons find the service attractive in protecting them against the high cost of accidents during skiing vacations, summer hikes, or mountain drives.

REGA



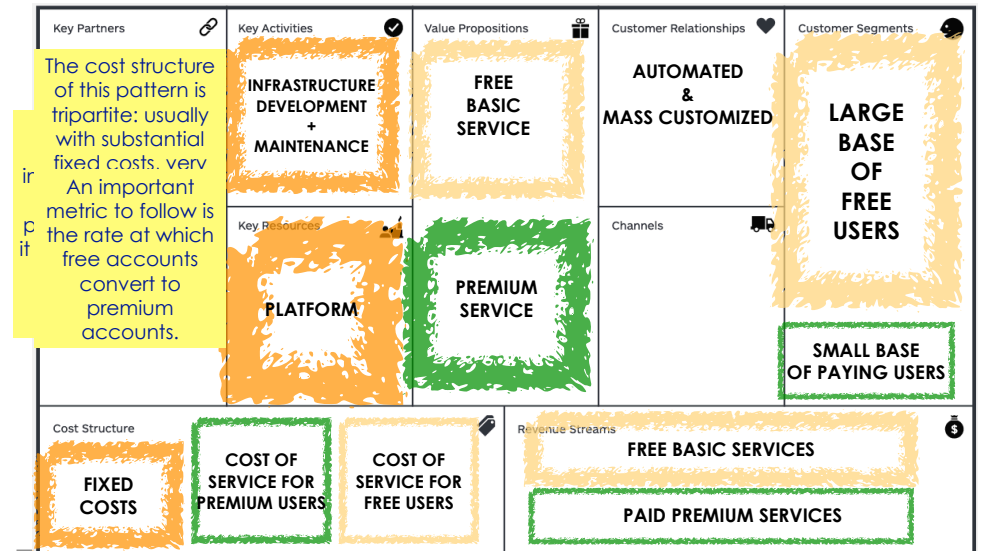
Business Model Patterns



- Unbundled
- Long Tail
- Multi-sided
- Free Advertising
- **Feemium** (RedHat, Skype)
- Open Business Models

Freemium Business Model

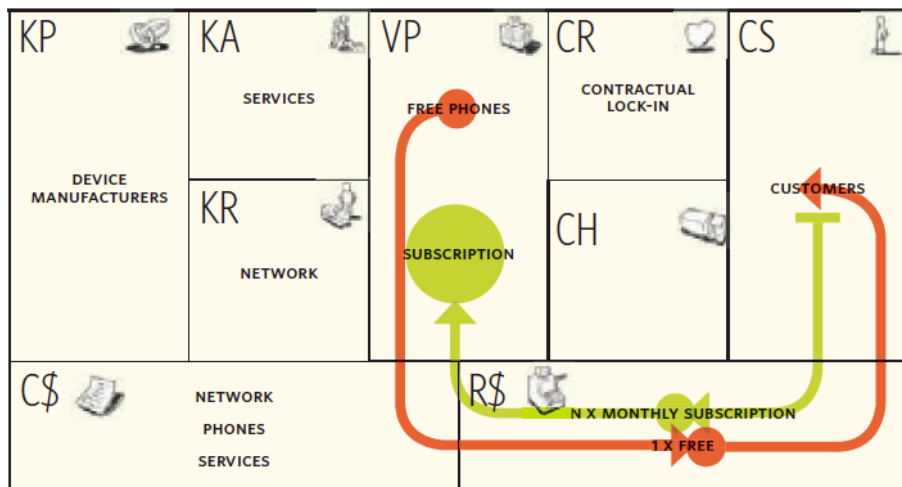
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Key Metrics and Terminology

- **Cost of service** indicates the average cost the company incurs to deliver a free or premium service to a free or premium user.
- **Price of premium service** indicates the average cost the company incurs to deliver a premium service to a premium paying user.
- **Growth & churn rate** specifies how many users join/ respectively defect the user base.
- **Customer acquisition costs:** total expenses a company incurs to acquire new users.
- **Percent of premium & free users** specifies how many of all users are premium paying users or free users.

Bait & Hook in Mobile Telecoms



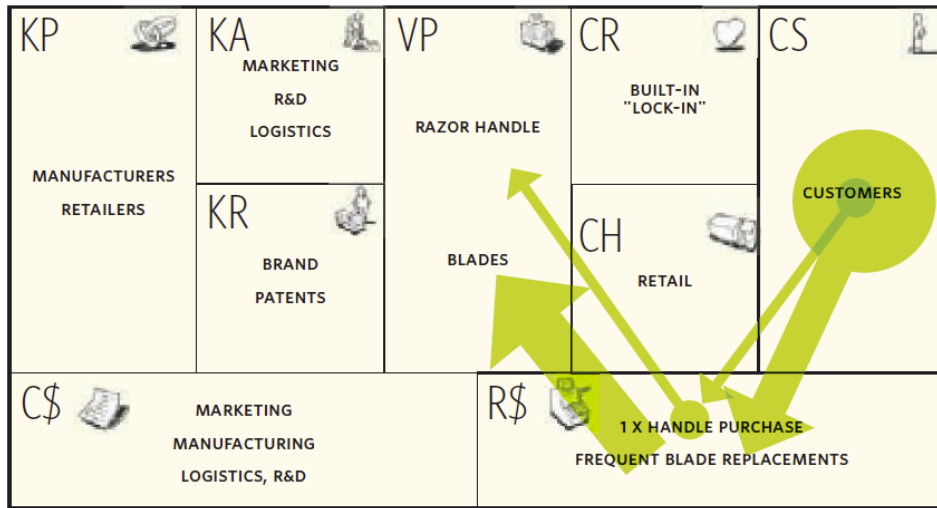
Bait & Hook Business Model Pattern

- Characterized by an **attractive, inexpensive, or free initial** offer that **encourages continuing future purchases of related products or services**. Also known as:
 - ▶ **“Loss leader”** - refers to a subsidized, even money-losing initial offer with the intention of generating profits from subsequent purchases.
 - ▶ **“Razor & blades”** refers to a business model popularized by an American businessman, King C. Gillette, inventor of the disposable razor blade (see p. 105).
- The term bait & hook pattern describes the general idea of **luring customers with an initial offering, while earning from follow-up sales**.

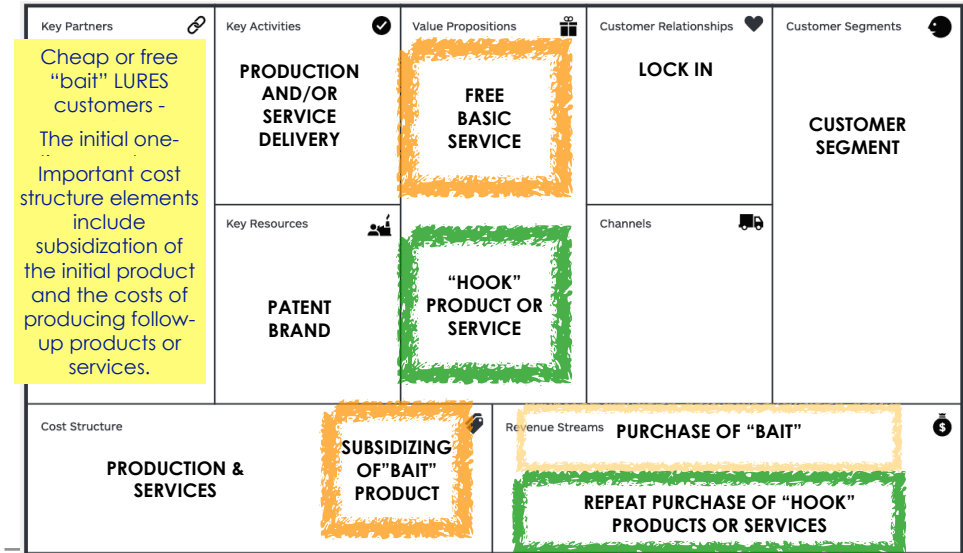
Razor & Blades : Gillette

- Gillette is the preeminent brand in shaving products.
- The key to this model is the close link between the inexpensive or free initial product and the follow-up item—usually disposable—on which the company earns a **high margin**.
- Controlling the **“lock-in”** is crucial to this pattern's success.
- Through **blocking patents**, Gillette ensured that competitors couldn't offer cheaper blades for the Gillette razor handles.
- In fact, today razors are among the world's most heavily patented consumer products, with **more than 1,000 patents** covering everything from lubricating strips to cartridge-loading systems.

Razor & Blades : Gillette



Bait & Hook Pattern



Business Model Patterns



- Unbundled
- Long Tail
- Multi-sided
- Free Advertising
- Freemium (RedHat, Skype)
- **Open Business Models**

Open Business Models

- Used by companies to create and capture value by **systematically collaborating** with **outside** partners.
- This may happen from the **"outside-in"** by exploiting external ideas within the firm, or from the **"inside-out"** by providing external parties with ideas or assets lying idle within the firm.

Open Innovation & Open Business

• In a world characterized by distributed knowledge, organizations can create more value and better exploit their own research by integrating:

- outside knowledge
- intellectual property, and
- products

into their innovation processes (Chesbrough, 2003).

• Products, technologies, knowledge, and intellectual property lying idle inside a company can be monetized by making them available to outside parties through:

- [licensing](#)
- [joint ventures](#), or
- [spin-offs](#).

Principles of Innovation

Closed	Open
The smart people in our field work for us.	We need to work with smart people both inside and outside our company.

Open Innovation & Open Business

- [Open innovation](#) and [open business models](#) refer to opening up a company's research process to outside parties.
- ["Outside-in"](#) innovation occurs when an organization brings external ideas, technology, or intellectual property into its development and commercialization processes
- ["Inside-out"](#) innovation occurs when organizations license or sell their intellectual property or technologies, particularly unused assets.

Principles of Innovation

Closed	Open
The smart people in our field work for us.	We need to work with smart people both inside and outside our company.
To profit from research and development (R&D), we must discover it, develop it, and ship it ourselves.	External R&D can create significant value; internal R&D is needed to claim some portion of that value.

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If we conduct most of the best research in the industry, we will win.	We don't have to originate the research to benefit from it.

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If we create the most or the best ideas in the industry, we will win.	If we make the best use of internal and external ideas, we will win.
We should control our innovation process, so that competitors don't profit from our ideas.	We should profit from others' use of our innovations, and we should buy others' intellectual property (IP) whenever it advances our own interests.

The Connector Business Model

- **Problem:** Companies seeking insights from external researchers incur substantial costs when trying to attract people or organizations with knowledge that could solve their problems.
- On the other hand, researchers who want to apply their knowledge outside their own organizations also incur search costs when seeking attractive opportunities.

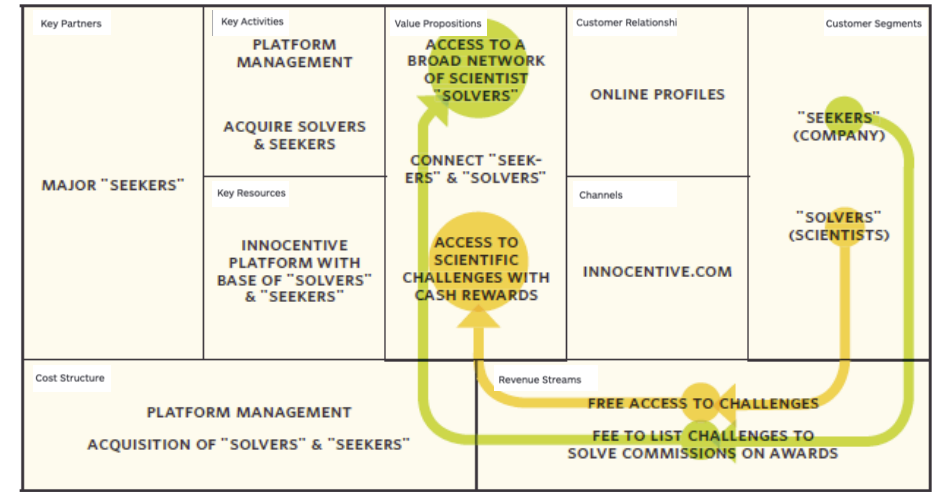
InnoCentive Case Study



INNOCENTIVE®

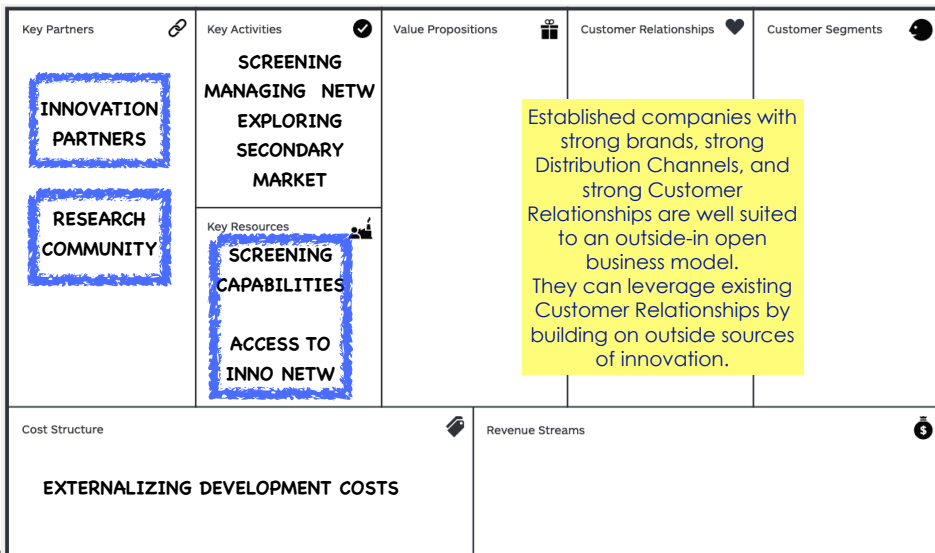
- InnoCentive provides connections between organizations with research problems to solve and researchers from around the world who are eager to solve challenging problems.
- Functions as an **independent intermediary** listing non-profits, government agencies, and commercial organizations such as Procter & Gamble, Solvay, and the Rockefeller Foundation.
 - ▶ **"Seekers:"** companies who post their innovation challenges on InnoCentive's Web site. They reward successful problem solvers with cash prizes that can range from \$5,000 to \$1,000,000.
 - ▶ **"Solvers:"** Scientists who attempt to find solutions to listed problems.
- InnoCentive's Value Proposition lies in aggregating and connecting "seekers" and "solvers."

<https://www.innocentive.com/>



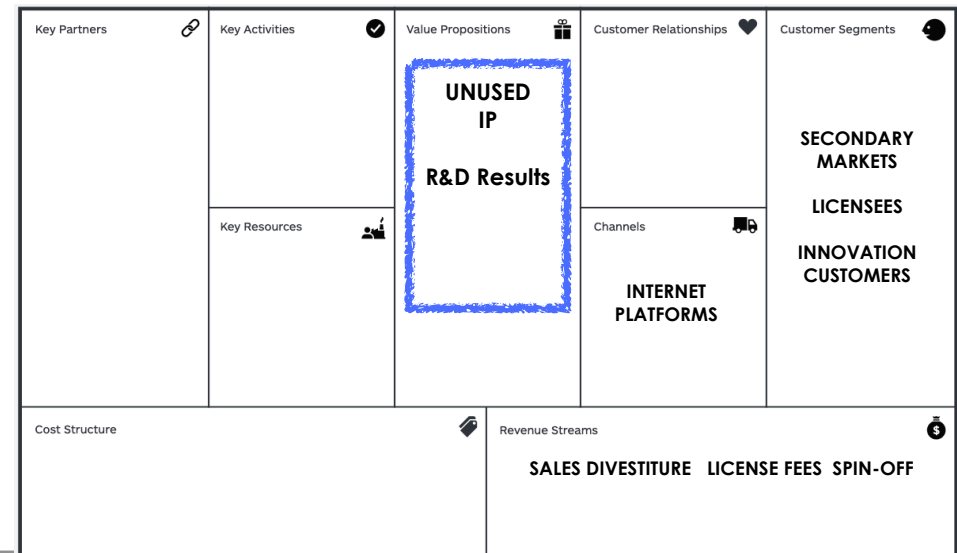
Outside-in Pattern

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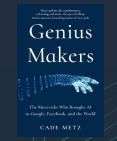


Inside-out Pattern

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Reading Assignment



Read the book “Genious Makers” by Cade Metz.

- ▶ A chapter discusses among others the establishment and evolution of the OpenAI company.
- Discuss and answer the following question:
 - ▶ What was the mission and business model of OpenAI and how it evolved until today?

M. D. Dikaikakos

Discussion



Discuss Business Models that are suitable for AI startups

M. D. Dikaikakos

Module 2: Business Modeling

Topic 2.3: Mission Statement

Master Programs in
Artificial Intelligence
for Careers in EU
(MAI&CAREU)



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