

# 資訊管理專題

## Hot Issues of Information Management

### E-commerce:

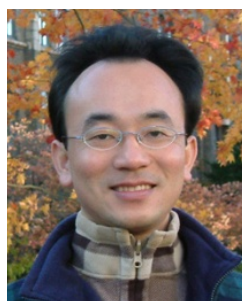
### Digital Markets, Digital Goods:

### Zagat (Chap. 10)

1051IM4B10

TLMXB4B (M0842)

Tue 3,4 (10:10-12:00) B507



Min-Yuh Day

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<http://mail.tku.edu.tw/myday/>

2016-12-13



# 課程大綱 (Syllabus)

週次 (Week)	日期 (Date)	內容 (Subject/Topics)
1	2016/09/13	Introduction to Case Study for Information Management Hot Topics
2	2016/09/20	Information Systems in Global Business: UPS (Chap. 1) (pp.53-54)
3	2016/09/27	Global E-Business and Collaboration: P&G (Chap. 2) (pp.84-85) (Typhoon Day Off)
4	2016/10/04	Global E-Business and Collaboration: P&G (Chap. 2) (pp.84-85)
5	2016/10/11	Information Systems, Organization, and Strategy: Starbucks (Chap. 3) (pp.129-130)

# 課程大綱 (Syllabus)

週次 (Week)	日期 (Date)	內容 (Subject/Topics)
6	2016/10/18	Ethical and Social Issues in Information Systems: Facebook (Chap. 4) (pp.188-190)
7	2016/10/25	IT Infrastructure and Emerging Technologies: Amazon and Cloud Computing (Chap. 5) (pp. 234-236)
8	2016/11/01	IT Infrastructure and Emerging Technologies: Amazon and Cloud Computing (Chap. 5) (pp. 234-236)
9	2016/11/08	Foundations of Business Intelligence: IBM and Big Data (Chap. 6) (pp.261-262)
10	2016/11/15	期中考試週
11	2016/11/22	Midterm Report (期中報告)

# 課程大綱 (Syllabus)

週次	日期	內容 (Subject/Topics)
12	2016/11/29	Telecommunications, the Internet, and Wireless Technology: Google, Apple, and Microsoft (Chap. 7) (pp.318-320)
13	2016/12/06	Enterprise Applications: Summit and SAP (Chap. 9) (pp.396-398)
14	2016/12/13	E-commerce: Zagat (Chap. 10) (pp.443-445)
15	2016/12/20	Enhancing Decision Making: Zynga (Chap. 12) (pp.512-514)
16	2016/12/27	Final Report I (期末報告 I)
17	2017/01/03	Final Report II (期末報告 II)
18	2017/01/10	期末考試週

# Management Information Systems:

## Managing the Digital Firm

1

**Organization, Management, and the  
Networked Enterprise**

2

**Information Technology Infrastructure**

3

**Key System Applications for the  
Digital Age**

4

**Building and Managing Systems**

**Chap. 10**  
**E-commerce:**  
**Digital Markets, Digital Goods:**  
**Zagat**

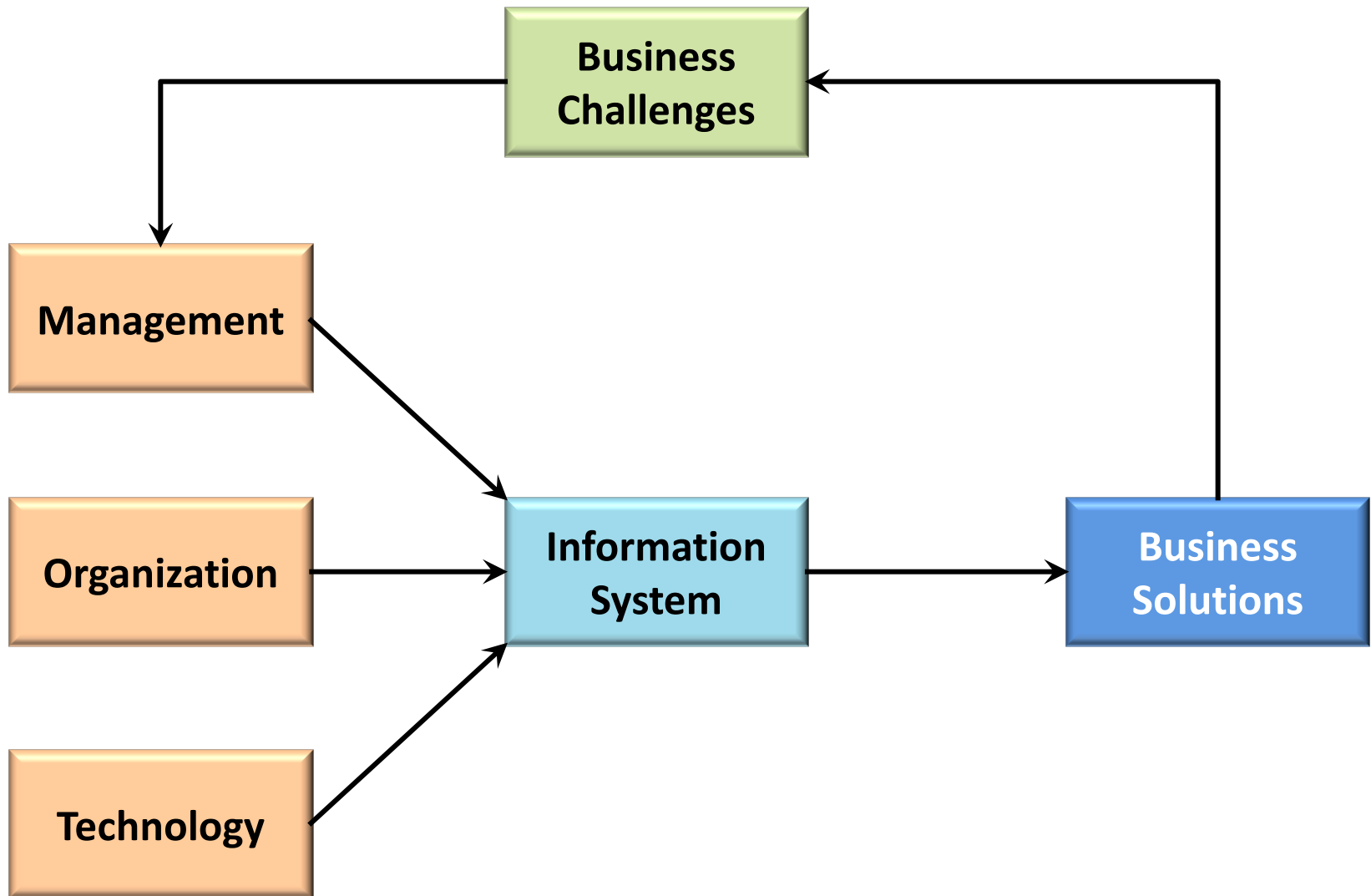
# Case Study:

## E-commerce: Zagat (Chap. 10) (pp.443-445)

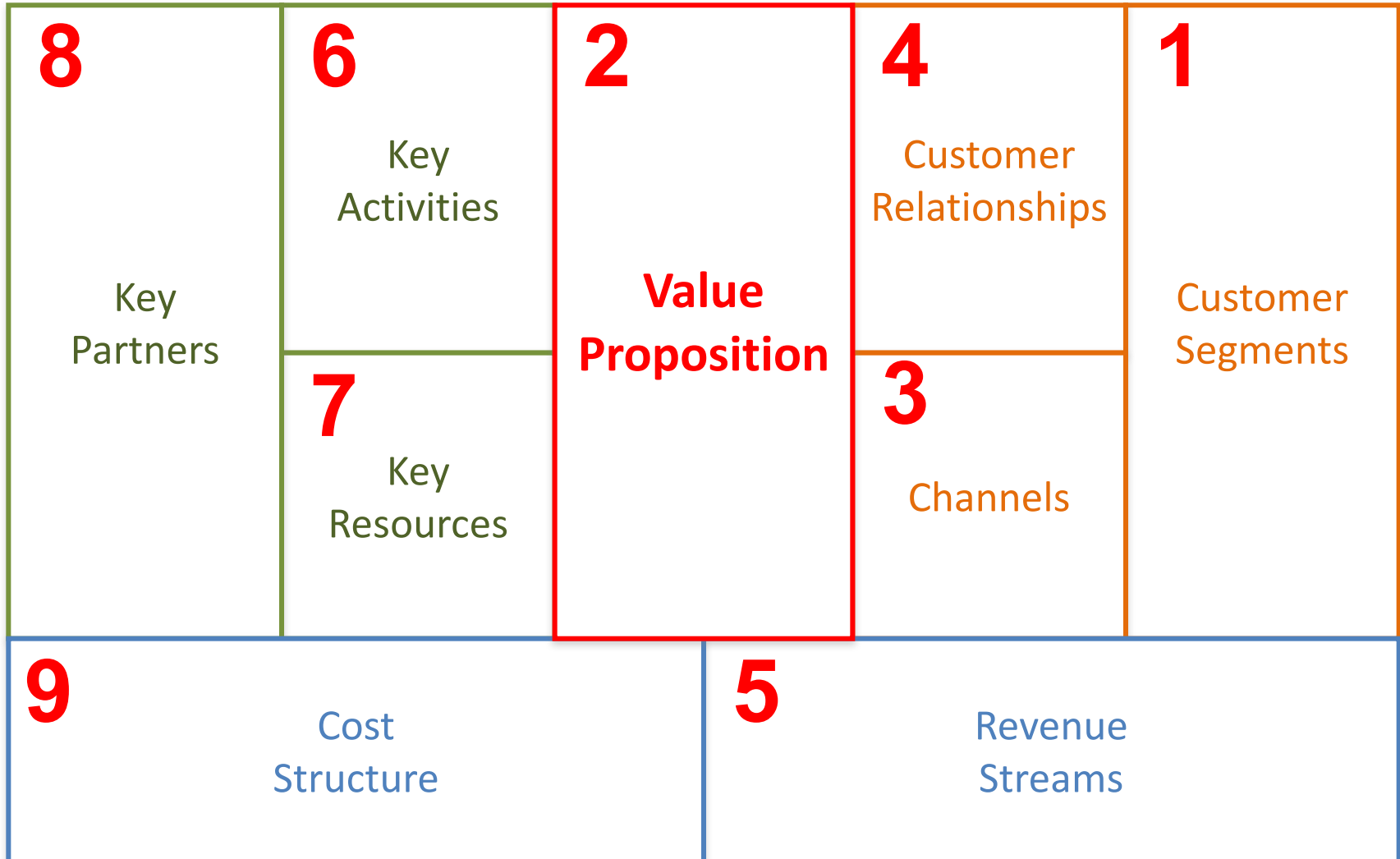
### To Pay or Not to Pay: Zagat's Dilemma

1. Evaluate Zagat using the competitive forces and value chain models.
2. Compare Zagat's and Yelp's e-commerce business models. How have those models affected each company's Web strategy?
3. Why was Zagat's content well suited for the Web and for the mobile digital platform?
4. Do you think Zagat's decision to use a pay wall for its Web site was a mistake? Why or why not?
5. Will Zagat's acquisition by Google make it more competitive? Explain your answer.

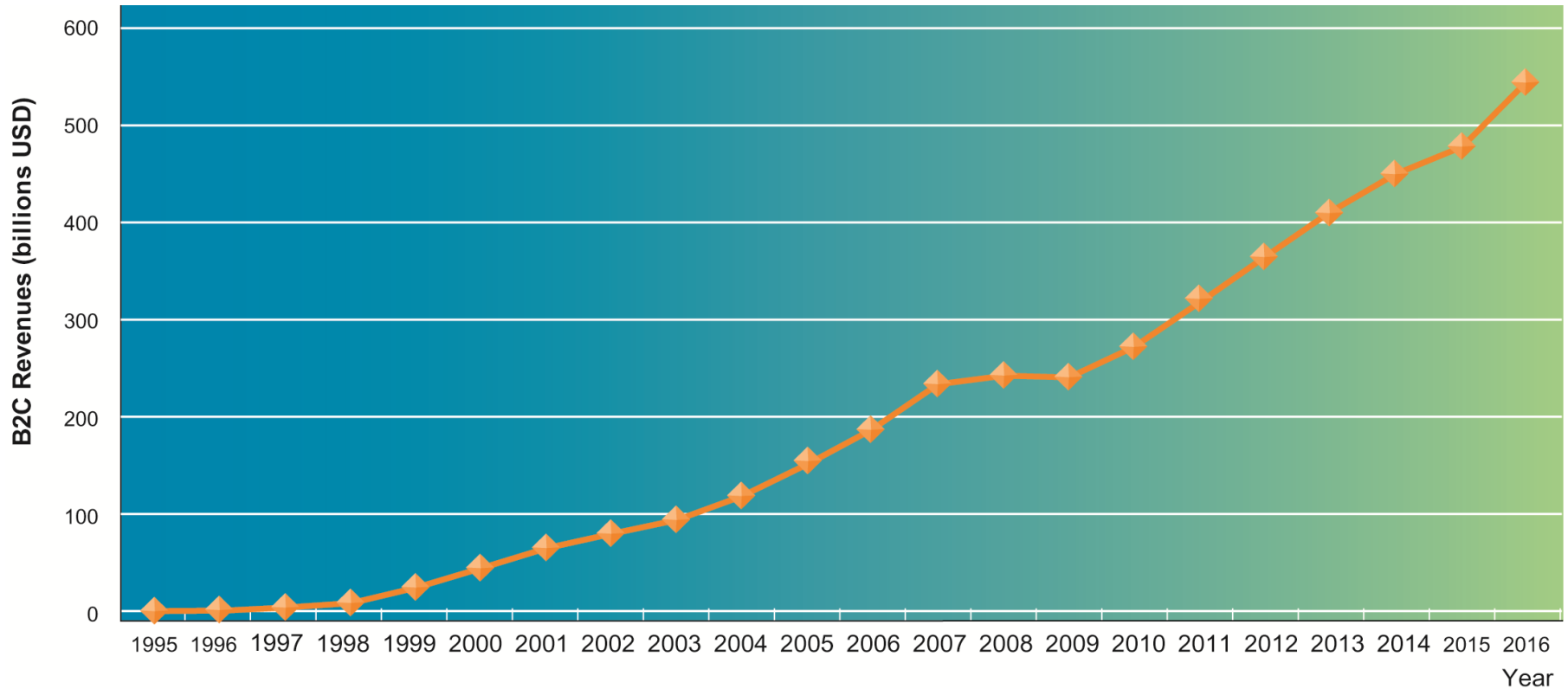
# Overview of Fundamental MIS Concepts



# Business Model



# The Growth of E-Commerce



# 8 Unique Features of E-commerce

1. Ubiquity
2. Global reach
3. Universal standards
4. Richness
5. Interactivity
6. Information density
7. Personalization/Customization
8. Social technology

# Ubiquity

- Internet/Web technology available everywhere: work, home, and so on, anytime.
- Effect:
  - Marketplace removed from temporal, geographic locations to become “marketspace”
  - Enhanced customer convenience and reduced shopping costs
- Reduces transaction costs
  - Costs of participating in market

# Global reach

- The technology reaches across national boundaries, around Earth
- Effect:
  - Commerce enabled across cultural and national boundaries seamlessly and without modification.
  - Marketspace includes, potentially, billions of consumers and millions of businesses worldwide.

# Universal standards

- One set of technology standards:  
Internet standards
- Effect:
  - Disparate computer systems easily communicate with one another
  - Lower market entry costs—costs merchants must pay to bring goods to market
  - Lower consumers' search costs—effort required to find suitable products

# Richness

- Supports video, audio, and text messages
- Effect:
  - Possible to deliver rich messages with text, audio, and video simultaneously to large numbers of people.
  - Video, audio, and text marketing messages can be integrated into single marketing message and consumer experience.

# Interactivity

- The technology works through interaction with the user.
- Effect:
  - Consumers engaged in dialog that dynamically adjusts experience to the individual.
  - Consumer becomes co-participant in process of delivering goods to market.

# Information density

- Large increases in information density—the total amount and quality of information available to all market participants
- Effect:
  - Greater price transparency
  - Greater cost transparency
  - Enables merchants to engage in price discrimination

# Personalization/Customization

- Technology permits modification of messages, goods
- Effect:
  - Personalized messages can be sent to individuals as well as groups.
  - Products and services can be customized to individual preferences.

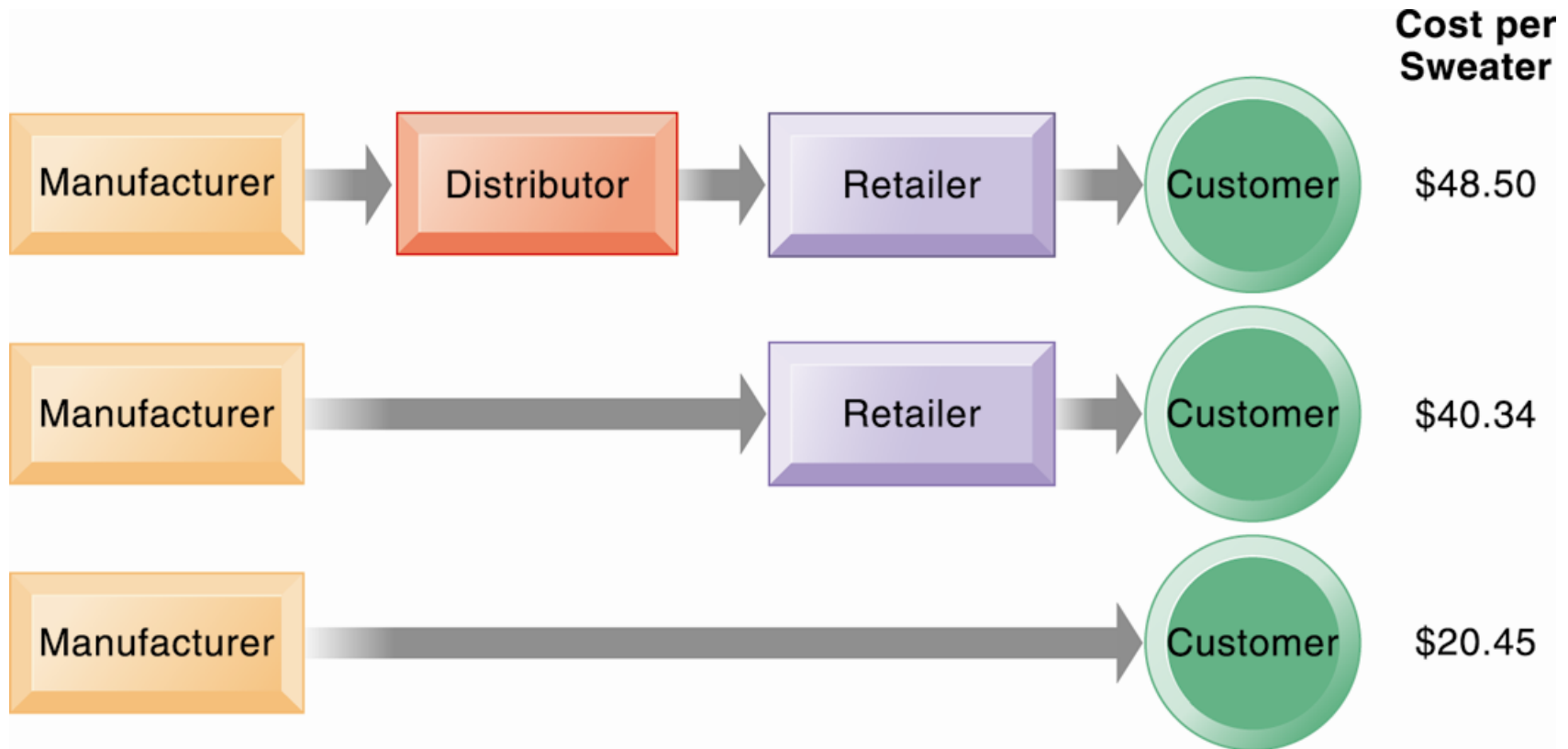
# Social technology

- The technology promotes user content generation and social networking
- Effect:
  - New Internet social and business models enable user content creation and distribution, support social networks
  - Many-to-many model

# Effect of the Internet on the marketplace

- Reduces information asymmetry
- Offers greater flexibility and efficiency because of:
  - Reduced search costs and transaction costs
  - Lower menu costs
  - Greater price discrimination
  - Dynamic pricing
- May reduce or increase switching costs
- May delay gratification: effects dependent on product
- Increased market segmentation
- Stronger network effects
- More disintermediation

# The Benefits of Disintermediation to the Consumer



# Digital goods

- Goods that can be delivered over a digital network
  - For example: music tracks, video, software, newspapers, books
- Cost of producing first unit is almost entire cost of product
- Costs of delivery over the Internet very low
- Marketing costs remain the same; pricing highly variable
- Industries with digital goods are undergoing revolutionary changes (publishers, record labels, etc.)

# Types of E-Commerce

- Three major types of e-commerce
  - Business-to-Consumer (B2C)
    - Example: BarnesandNoble.com
  - Business-to-Business (B2B)
    - Example: ChemConnect
  - Consumer-to-Consumer (C2C)
    - Example: eBay
- E-commerce can be categorized by platform
  - Mobile Commerce (m-commerce)

# E-commerce

## Business Models

1. E-tailer
2. Transaction broker
3. Market creator
4. Content provider
5. Community provider
6. Portal
7. Service provider

# E-commerce

## Revenue Models

1. Advertising
2. Sales
3. Subscription
4. Free/Freemium
5. Transaction Fee
6. Affiliate

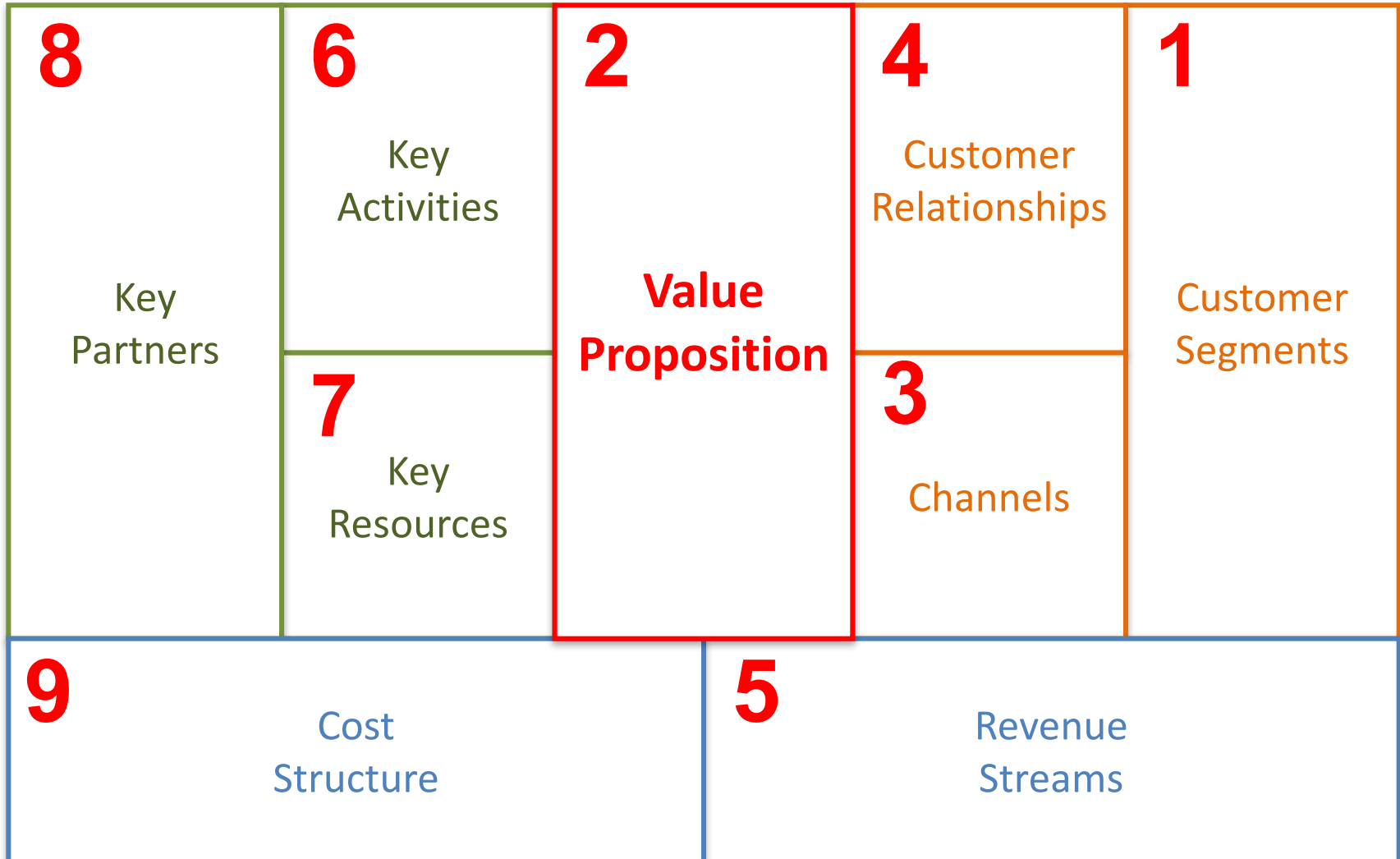
# Understanding **Business Model**

- **Business Model**
- Revenue Model
- Business Strategy
- Business Strategy and Information System Alignment

# Business Model

# Value

# Business Model



# Definition of Business Model

**A business model**  
**describes the rationale of**  
**how an organization**  
**creates, delivers, and captures**  
**value.**

# Definition of Business Strategy

**A business strategy**  
**is**  
**a long term plan of action**  
**designed to achieve a particular goal**  
**or set of goals or objectives.**

# Business

- “the activity of providing goods and services involving financial, commercial and industrial aspects.” (WordNet 2.0)

# Model

- “a simplified description and representation of a complex entity or process.” (WordNet 2.0)

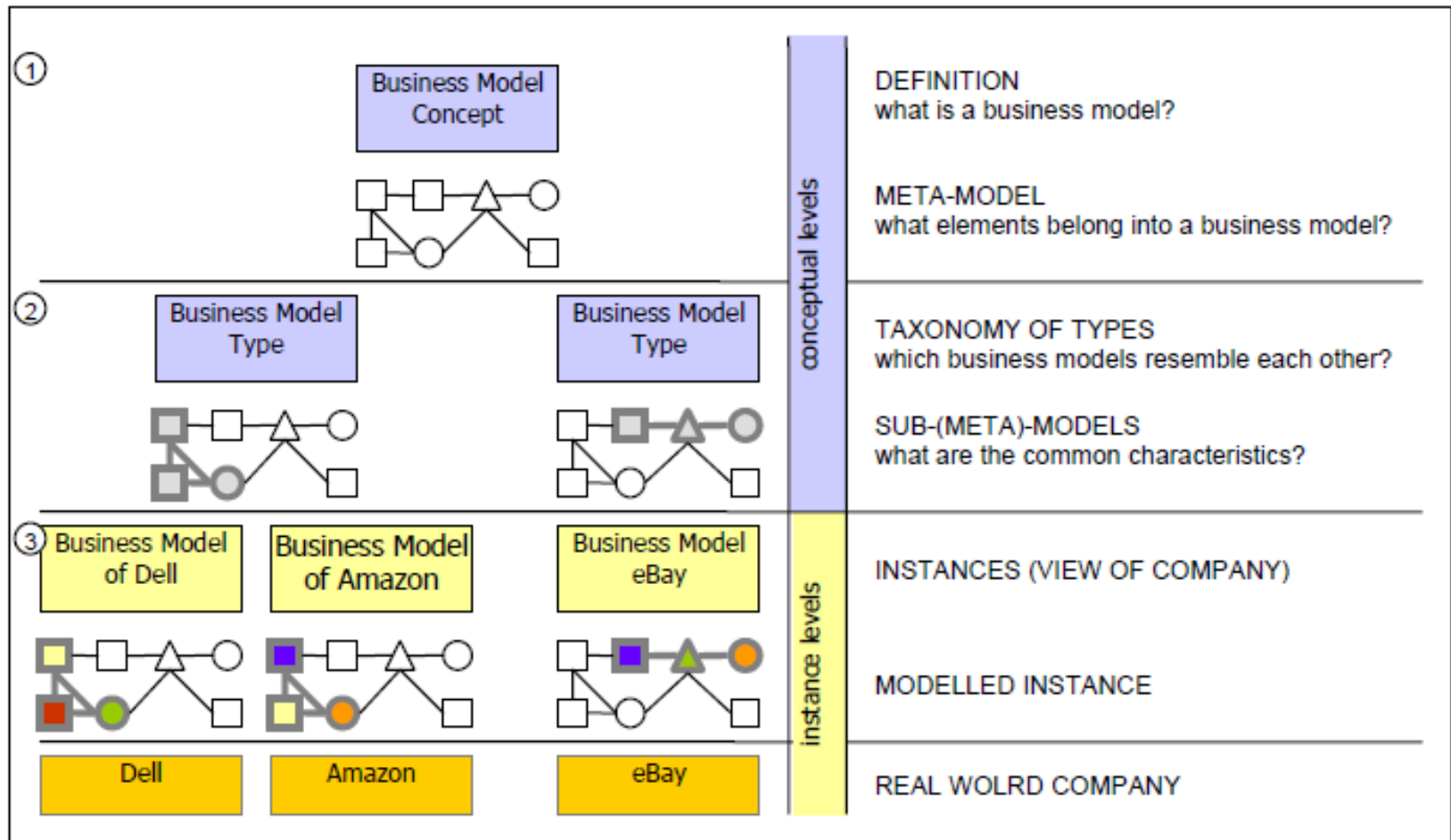
# Business Model

- A business model is a **conceptual tool** containing a set of **objects, concepts and their relationships** with the objective to express the **business logic** of a specific firm.
- Therefore we must consider which **concepts and relationships** allow a simplified description and representation of **what value is provided to customers, how this is done** and with which **financial consequences**.

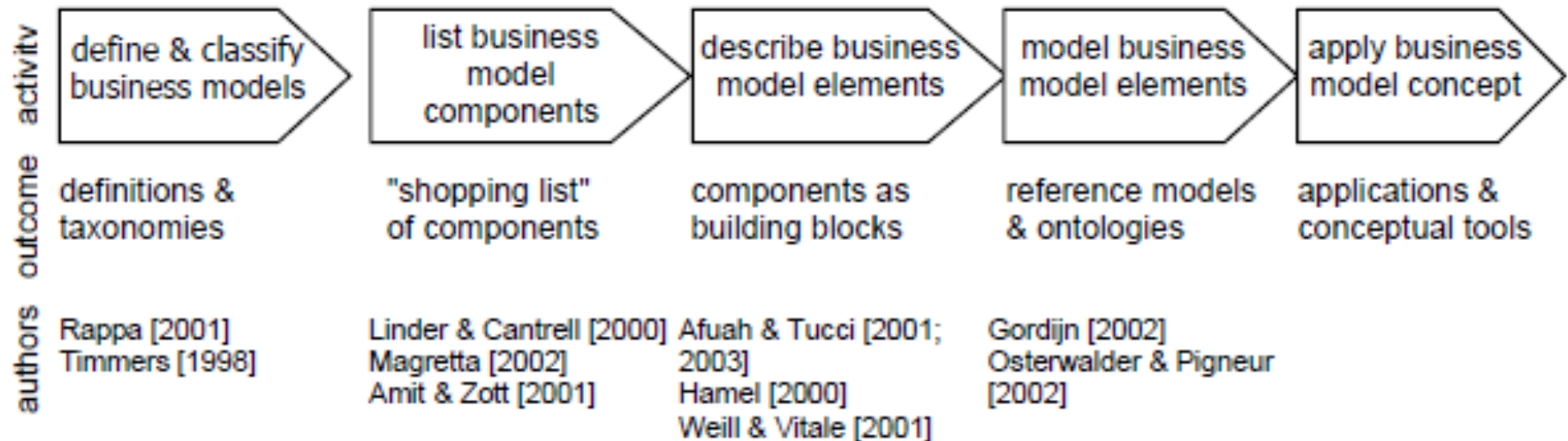
## Occurrences of the Term "Business Model" in Scholarly Reviewed Journals

<b>Year</b>	<b>In Title</b>	<b>In Abstract</b>	<b>In Keywords</b>	<b>in Full Text</b>
2003	30	159	10	667
2002	22	109	2	617
2001	11	100	7	609
2000	16	67	1	491
1999	3	42	1	262
1998	1	19	0	128
1997	1	14	0	66
1996	0	14	0	57
1995	0	4	0	36
1994	0	2	0	18
1993	0	5	0	18
1992	0	2	0	15
1991	0	1	0	10
1990	0	4	0	7

# Business Model Concept Hierarchy



# Evolution of the Business Model Concept



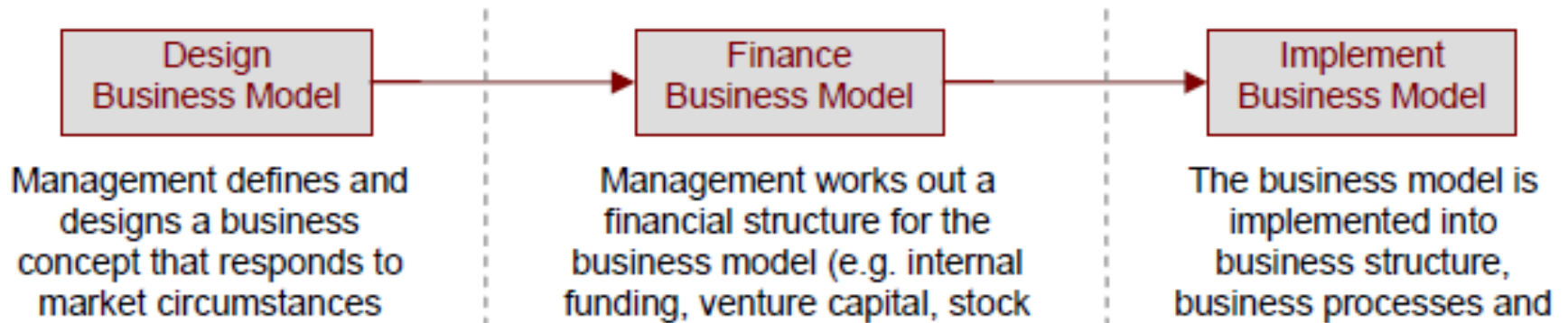
# Business Model vs. Business Process Model

- Business Model
  - a view of the firm's logic for creating and commercializing value
- Business process model
  - how a business case is implemented in processes

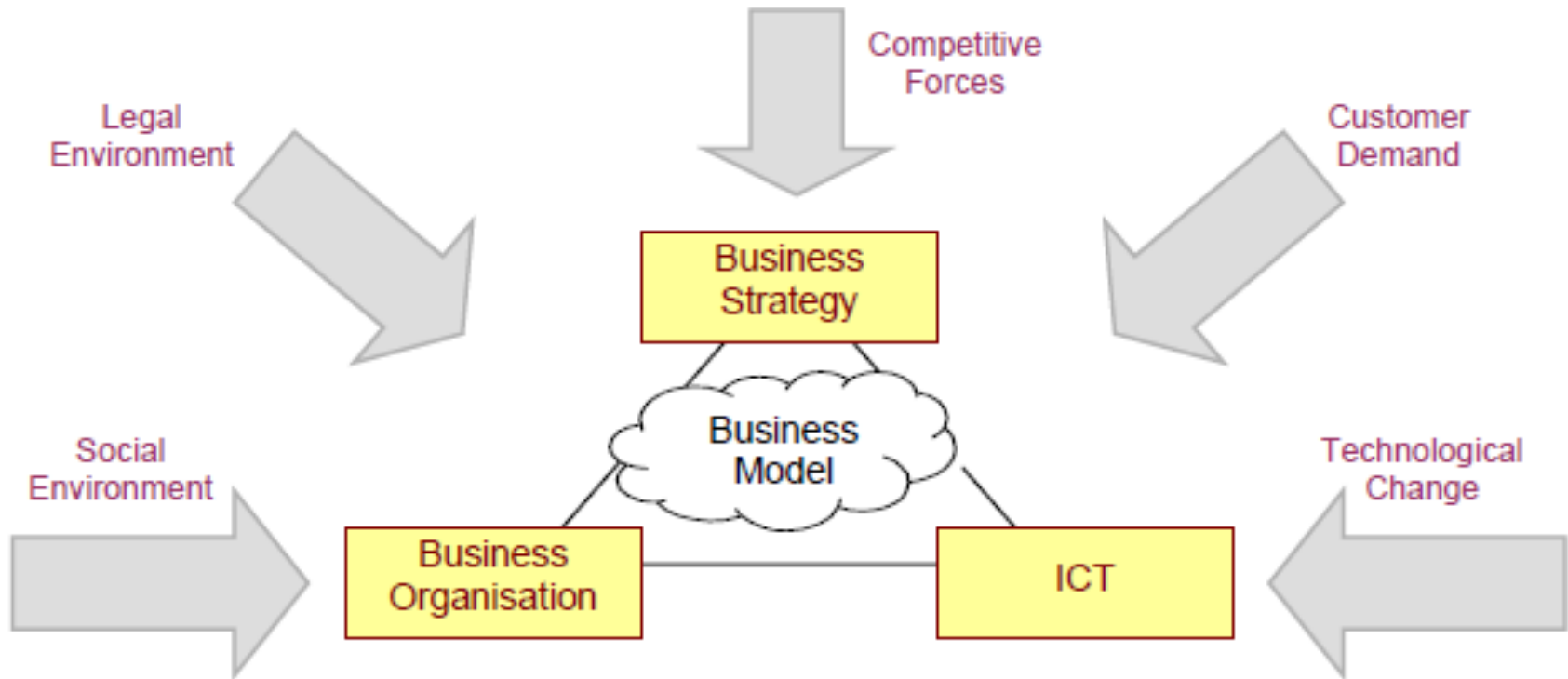
# Business Model vs. Strategy

- Business Models
  - a system that shows how the pieces of a business fit together.
  - an abstraction of a firm's strategy
- Strategy
  - includes competition

# Implementing Business Models



# The Business Model's Place in the Firm



# Nine Business Model Building Blocks

Pillar	Business Model Building Block	Description
Product	Value Proposition	Gives an overall view of a company's bundle of products and services.
Customer Interface	Target Customer	Describes the segments of customers a company wants to offer value to.
	Distribution Channel	Describes the various means of the company to get in touch with its customers.
	Relationship	Explains the kind of links a company establishes between itself and its different customer segments.
Infrastructure Management	Value Configuration	Describes the arrangement of activities and resources.
	Core Competency	Outlines the competencies necessary to execute the company's business model.
	Partner Network	Portrays the network of cooperative agreements with other companies necessary to efficiently offer and commercialize value.
Financial Aspects	Cost Structure	Sums up the monetary consequences of the means employed in the business model.
	Revenue Model	Describes the way a company makes money through a variety of revenue flows.

# Domains Addressed in Business Models

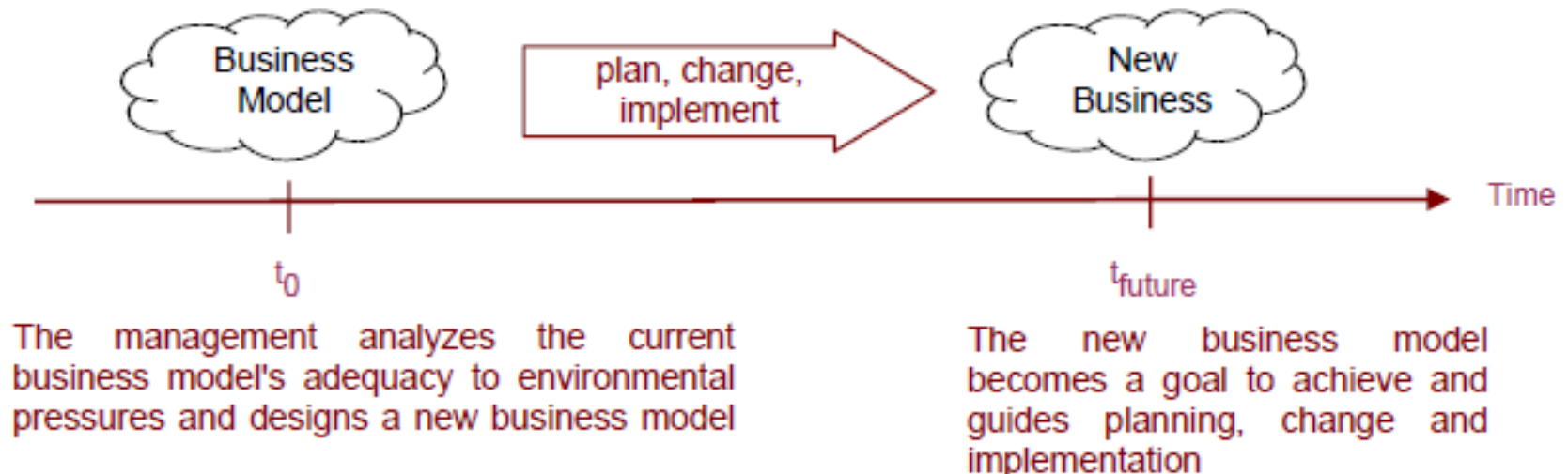
Business model ontology	Stähler 2001	Weill and Vitale 2001	Petrovic, Kittl et al.	Gordijn 2002	Afuah and Tucci 2003	Tapscott, Ticoll et al. 2000	Linder and Cantrell 2000
Value Proposition	value proposition	Value Proposition, strategic objective	Value Model	Value offering	Customer Value		value proposition
Target Customer		Customer Segments		Market Segment	Scope		
Distribution Channel		Channels	Customer relations model				channel model
Customer Relationship			Customer relations model				commerce relationship
Value Configuration	Architecture		Production Mode	e3-value configuration	connected activities, value configuration	b-webs	commerce process model
Capability		Core competencies, CSF	Resource Model		capabilities		
Partnership	Architecture	e-business schematics		Actors	sustainability (team-up strategy)	b-webs	
Cost Structure				Value exchange	cost structure		
Revenue Model	Revenue Model	Source of revenue	Revenue Model	value exchange	pricing, revenue source		pricing model, revenue model

# Domains Addressed in Business Models

## (cont.)

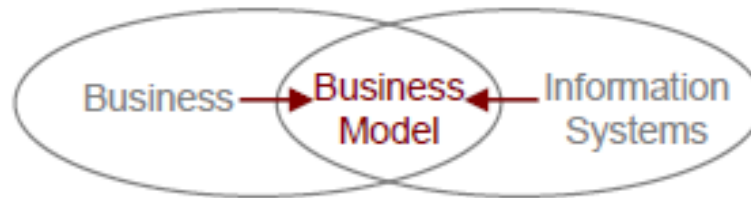
Business model ontology	Hamel 2000	Mahadevan 2000	Chesbrough and Rosenbloom 2000	Magretta 2002	Amit and Zott 2001	Applegate and Collura 2001	Maitland and Van de Kar 2002
Value Proposition	Product/market scope	Value stream	Value proposition	What does the customer value?	Transaction component	Product and Services offered	Value proposition, assumed value
Target Customer	Market scope		Market segment	Who is the customer?		Market opportunity	Market segment
Distribution Channel	Fulfillment & support, info & insight			How can we deliver value at an appropriate cost?		Marketing/sales model	
Customer Relationship	Relationship dynamics					Brand and reputation	
Value Configuration	Core processes	Logistical stream	Structure of the value chain		Architectural configuration	Operating model	
Capability	core competencies, strategic assets					Organization and culture, management model)	
Partnership	suppliers, partners, coalitions		Position in the value chain		Transaction component	Partners	Companies involved in creating value
Cost Structure			Cost structure	What is the underlying economic value?			
Revenue Model	pricing structure	Revenue stream		How do we make money in this business		Benefits to firm and stakeholders	Revenue Model

# Planning, Changing and Implementing Business Models



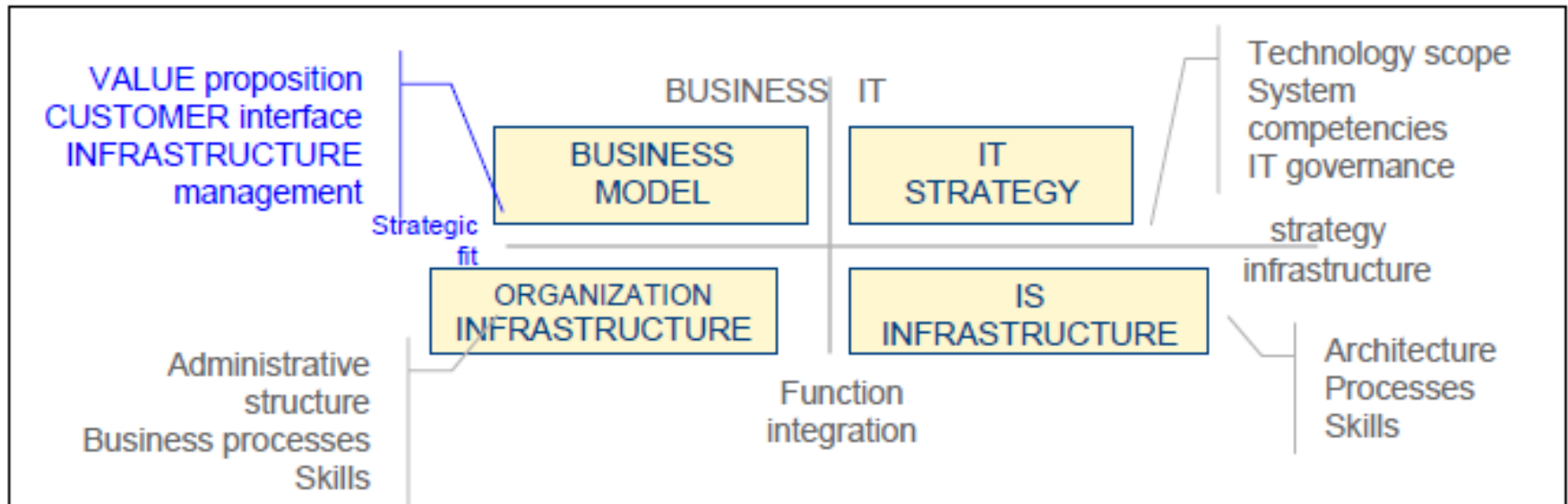
# Business Strategy and Information Systems Alignment

Managers are aware of the use of Information Systems to realize goals, exploit opportunities and obtain competitive advantage



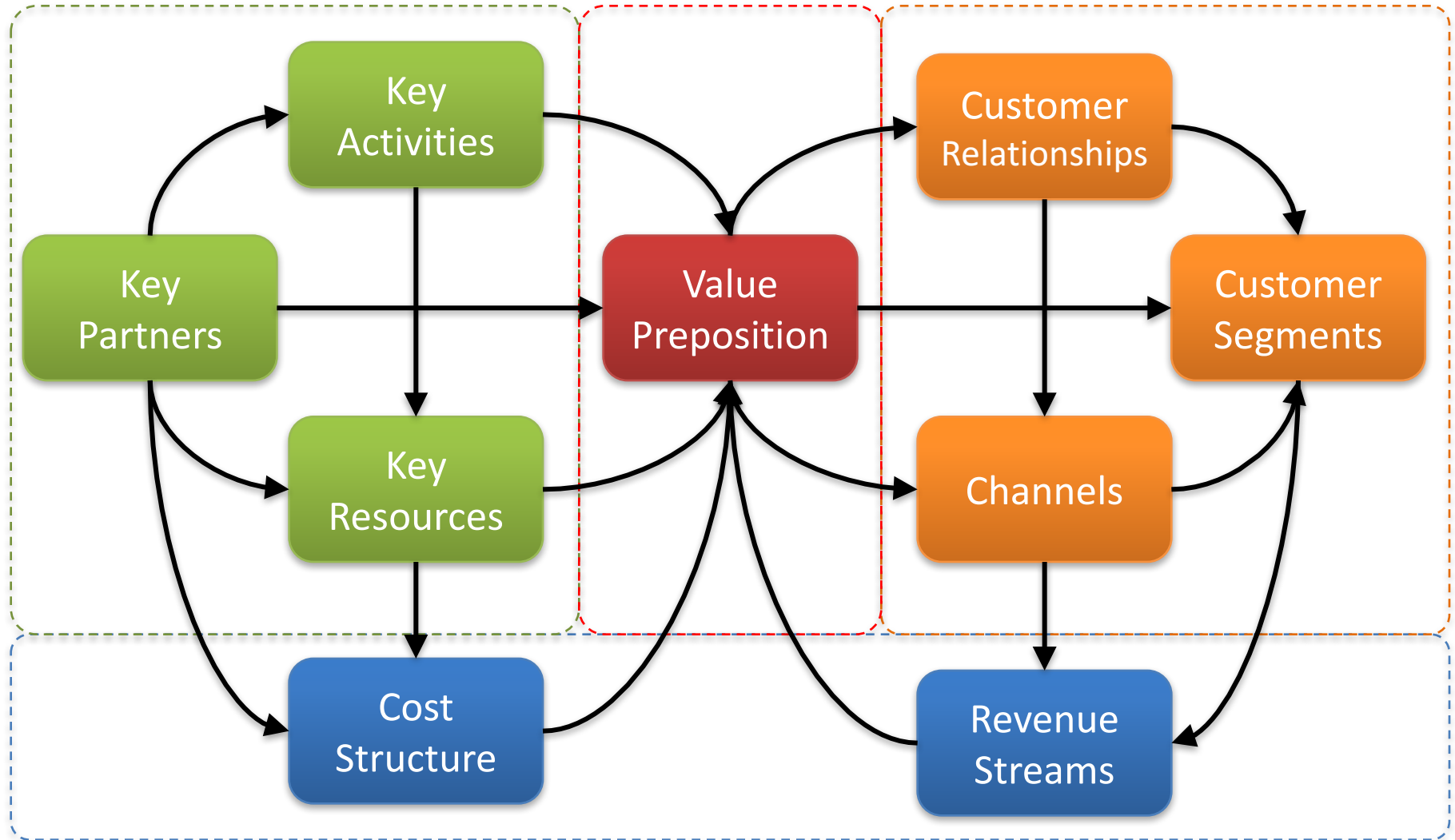
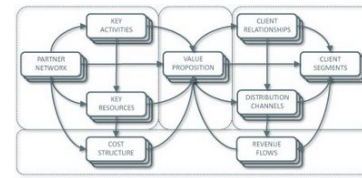
Information Systems support the company's business model and are targeted on areas that are critical to successful business performance

# Business and IT/IS Alignment



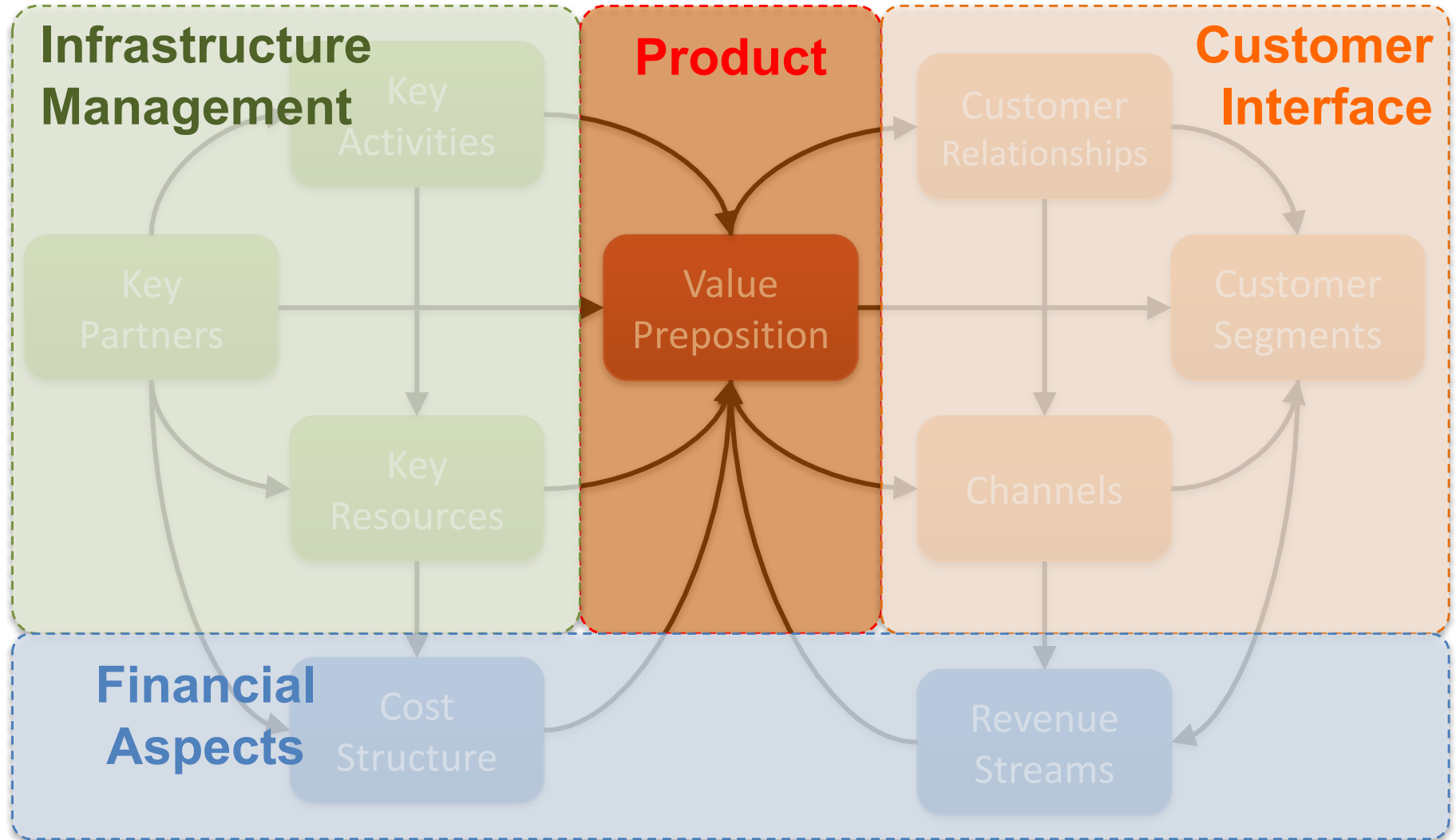
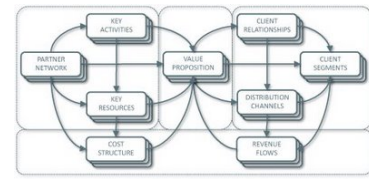
Adapted from [Henderson and Venkatraman 1999]

# Business Model Canvas



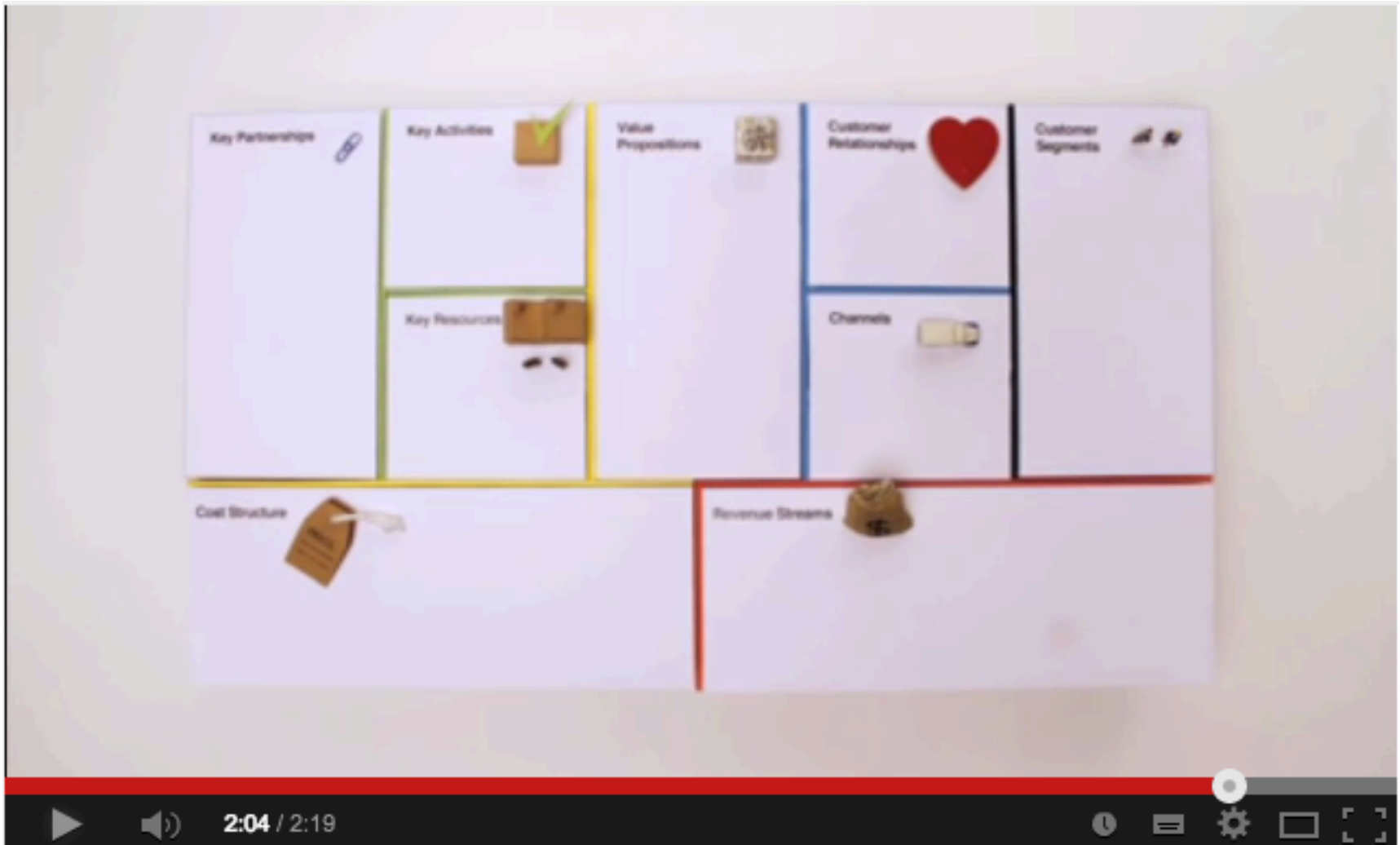
Source: [http://nonlinearthinking.typepad.com/nonlinear\\_thinking/2008/07/the-business-model-canvas.html](http://nonlinearthinking.typepad.com/nonlinear_thinking/2008/07/the-business-model-canvas.html)  
<https://www.youtube.com/watch?v=QoAOzMTLP5s>

# Business Model Canvas

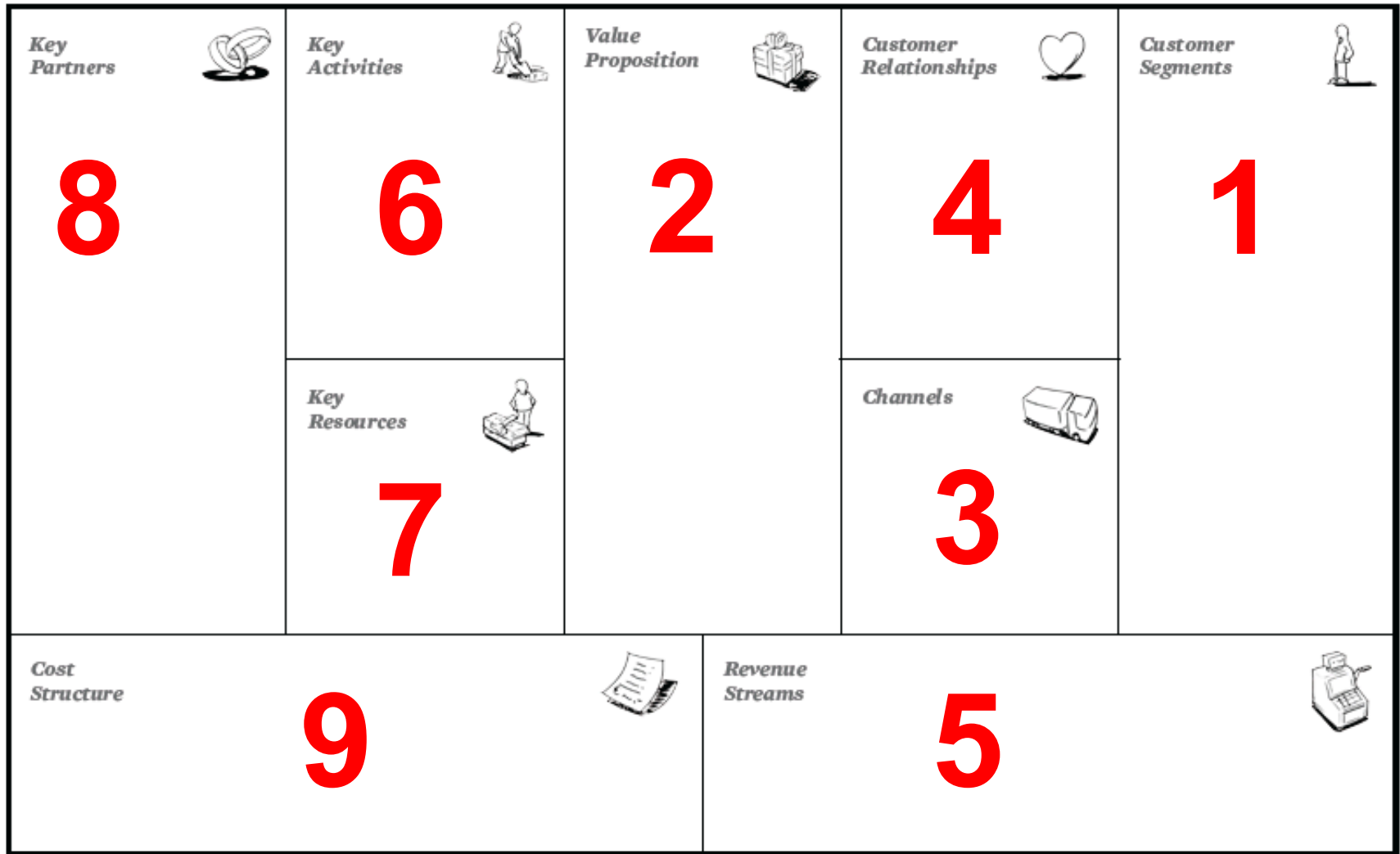


Source: [http://nonlinearthinking.typepad.com/nonlinear\\_thinking/2008/07/the-business-model-canvas.html](http://nonlinearthinking.typepad.com/nonlinear_thinking/2008/07/the-business-model-canvas.html)  
<https://www.youtube.com/watch?v=QoAOzMTLP5s>

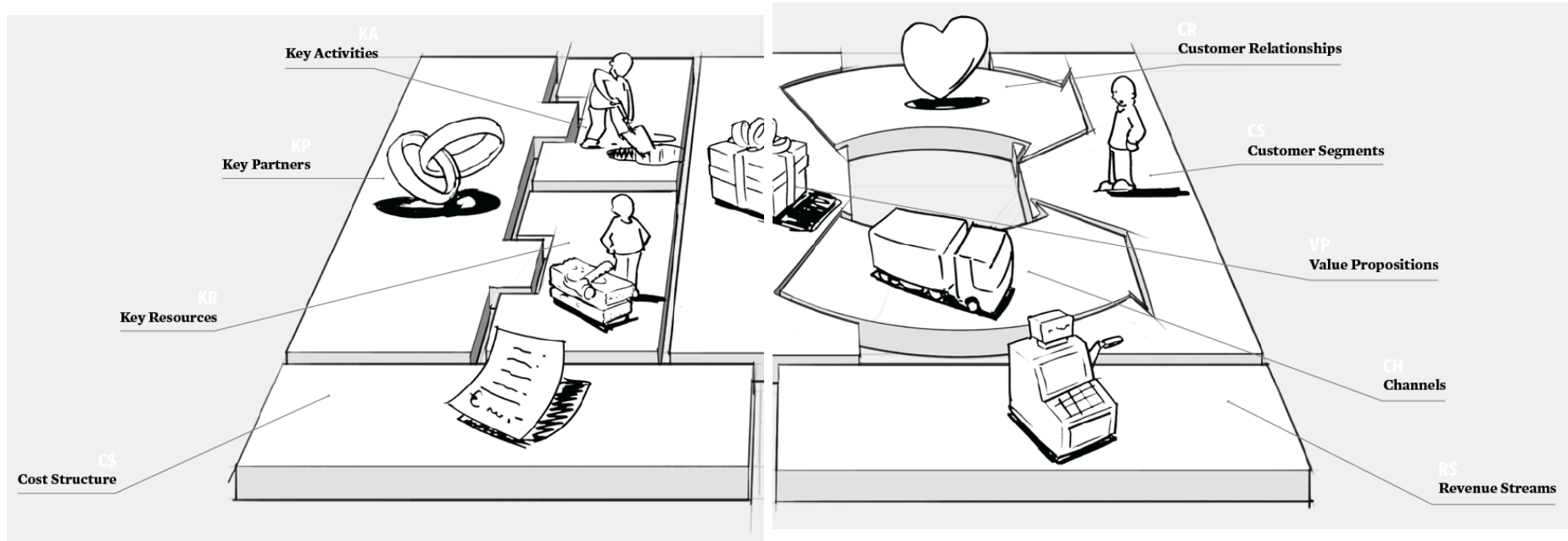
# Business Model Canvas Explained



# The 9 Building Blocks of Business Model

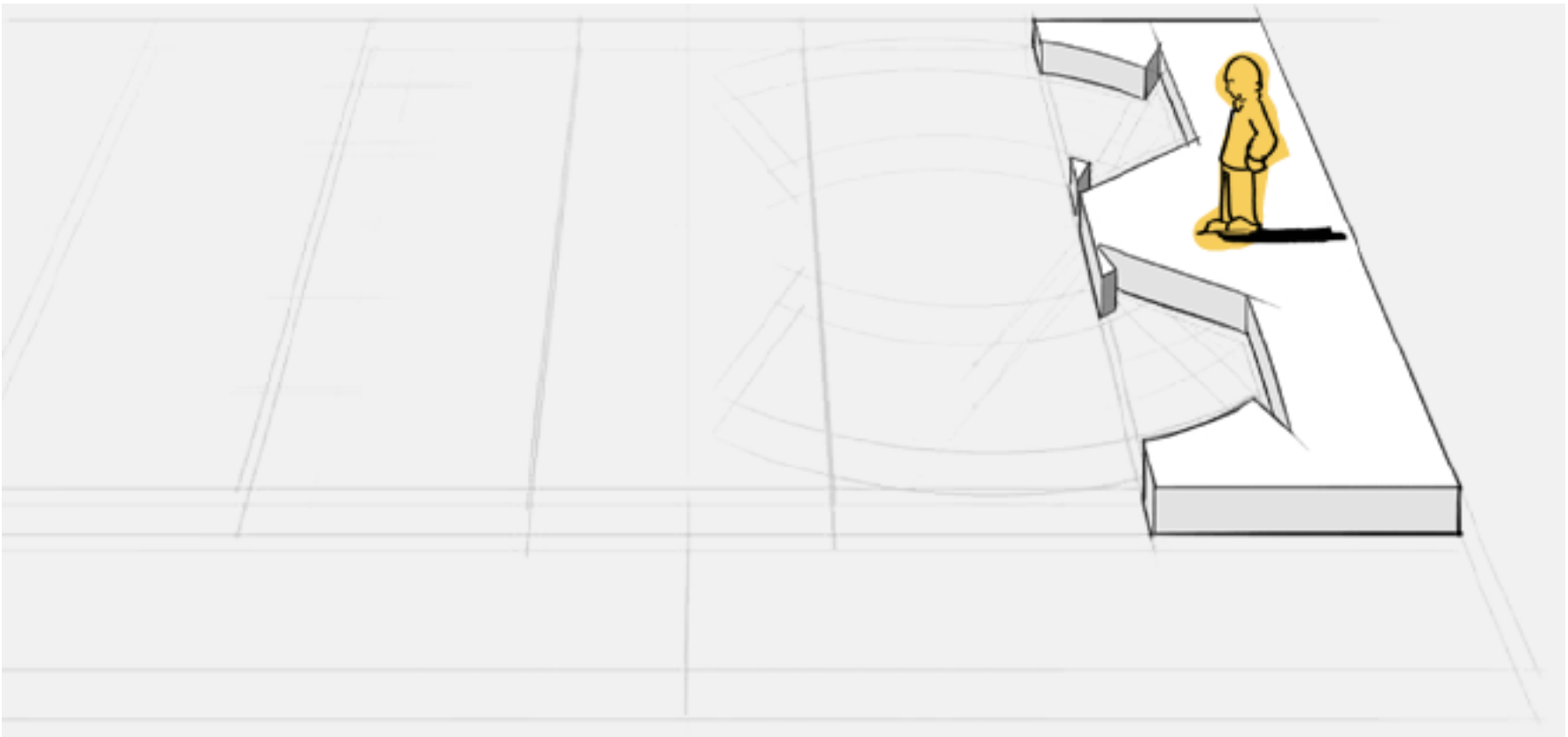


# The 9 Building Blocks of Business Model



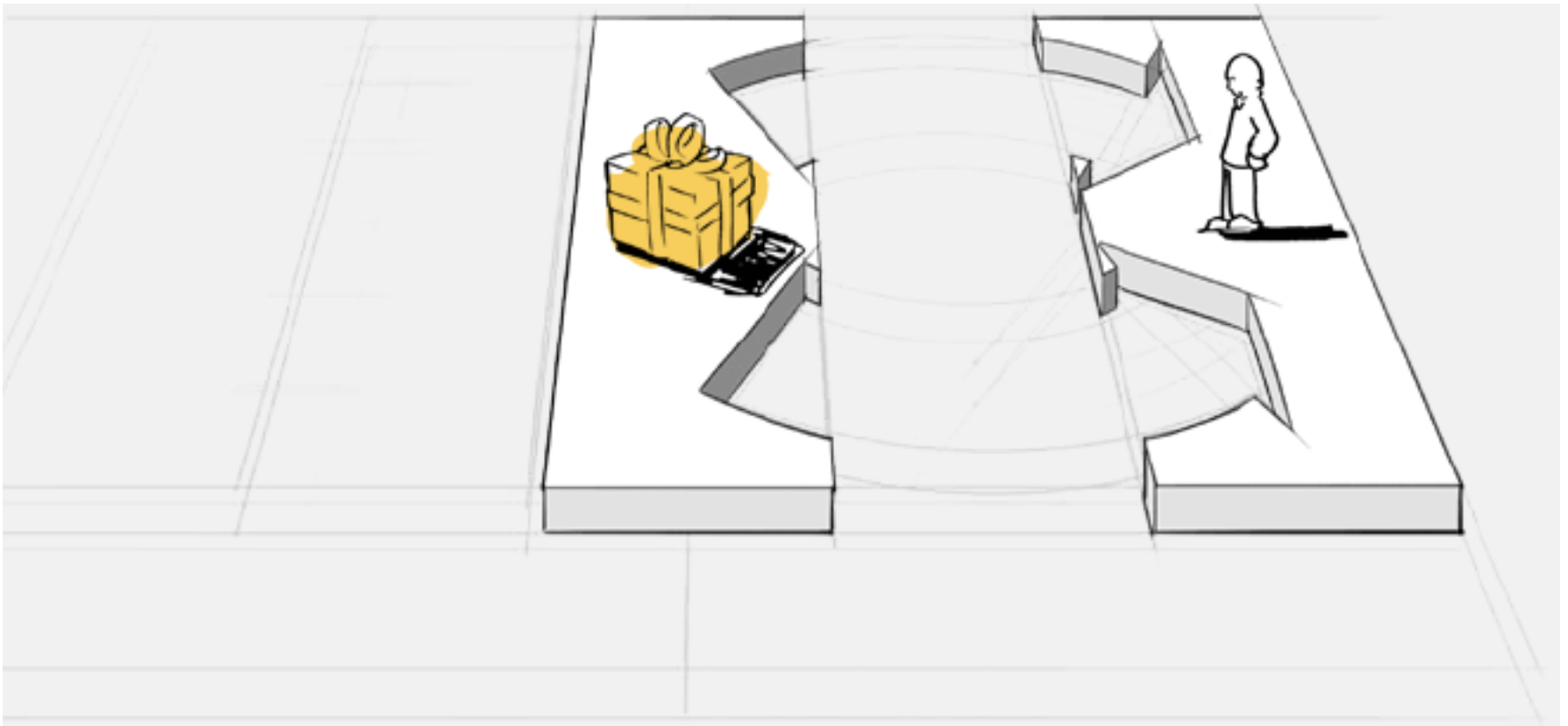
# 1. Customer Segments

Defines the different groups of people or organizations an enterprise aims to reach and serve



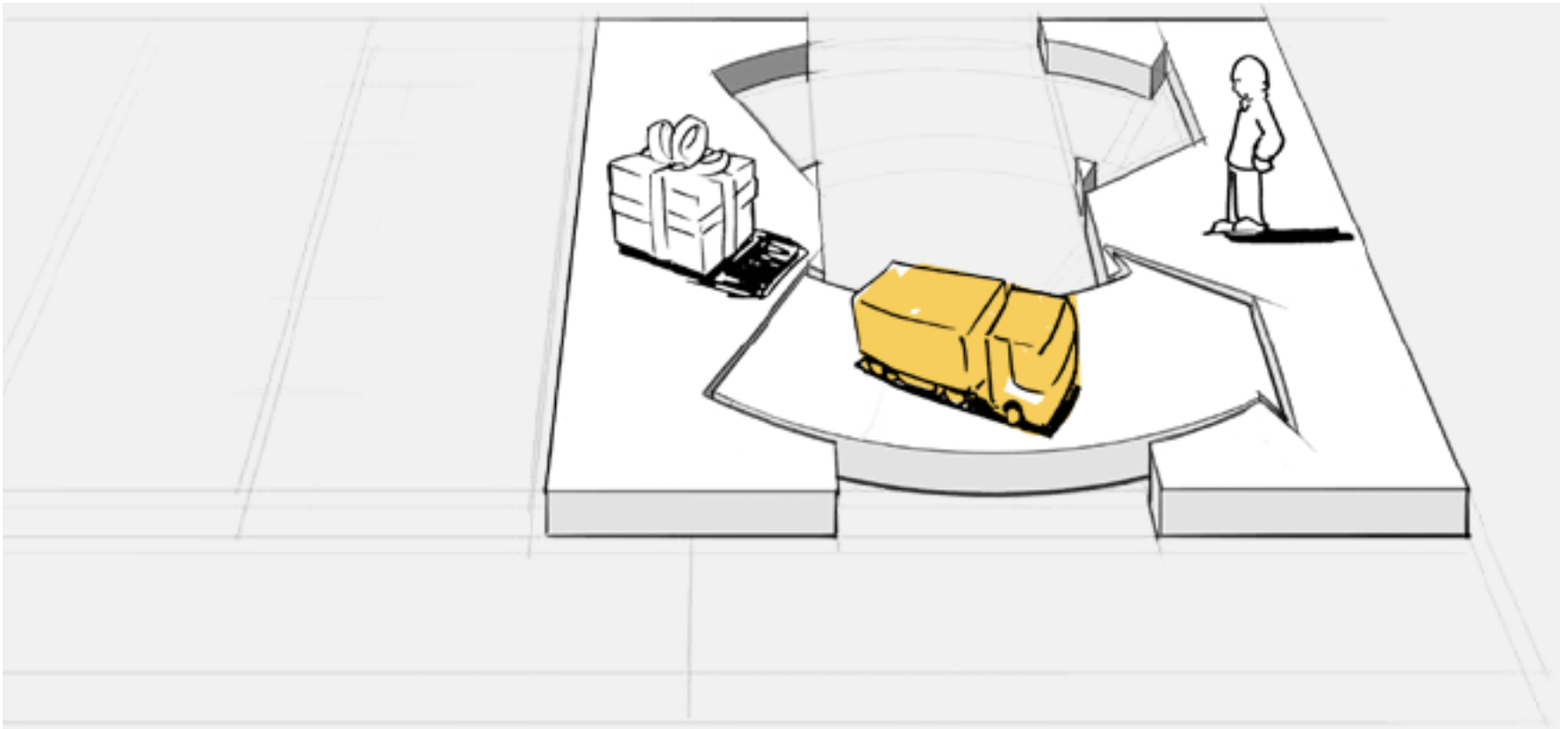
## 2. Value Propositions

Describes the bundle of products and services that create value for a specific Customer Segment



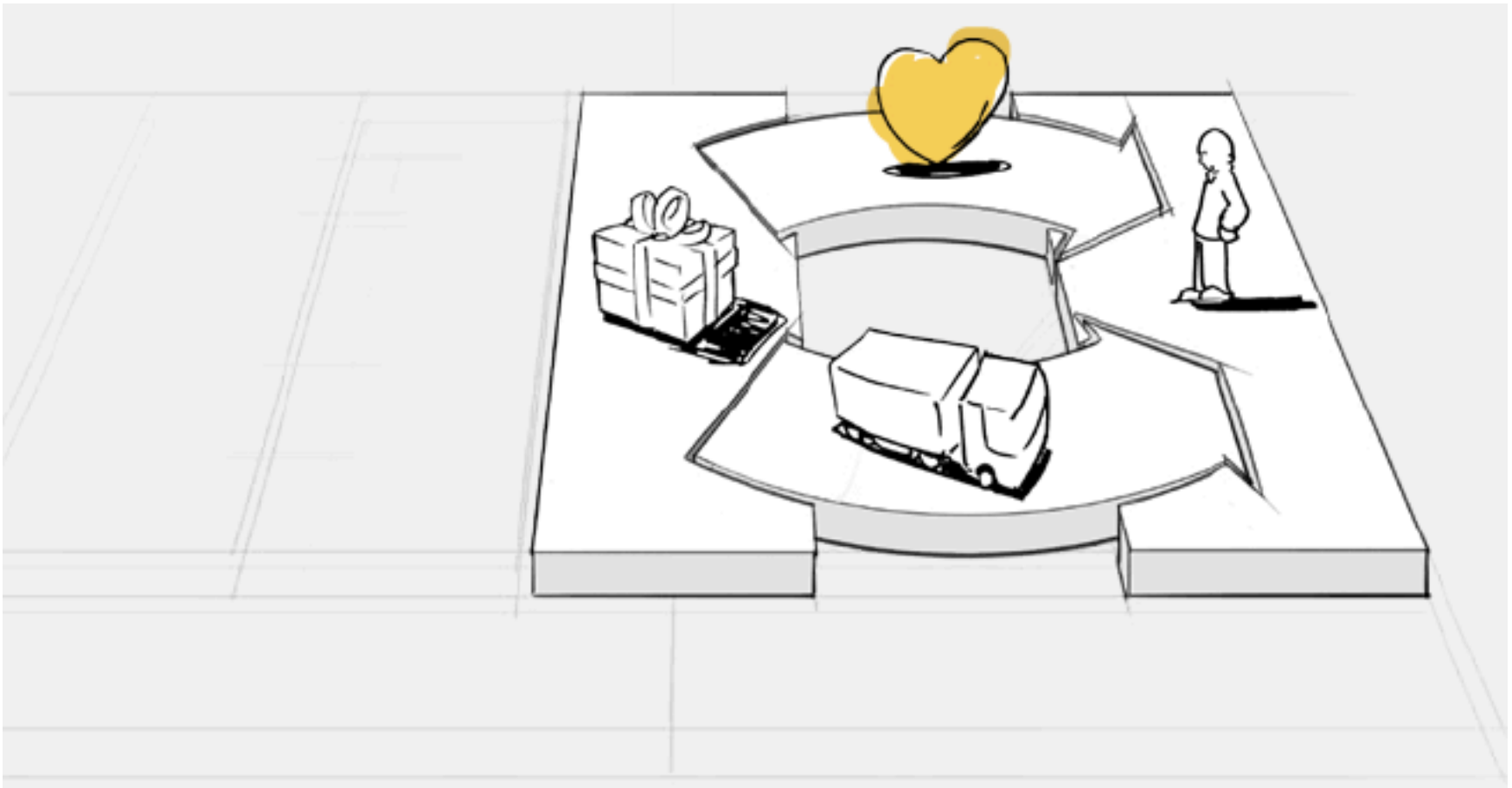
# 3. Channels

Describes how a company communicates with and reaches its Customer Segments to deliver a Value Proposition



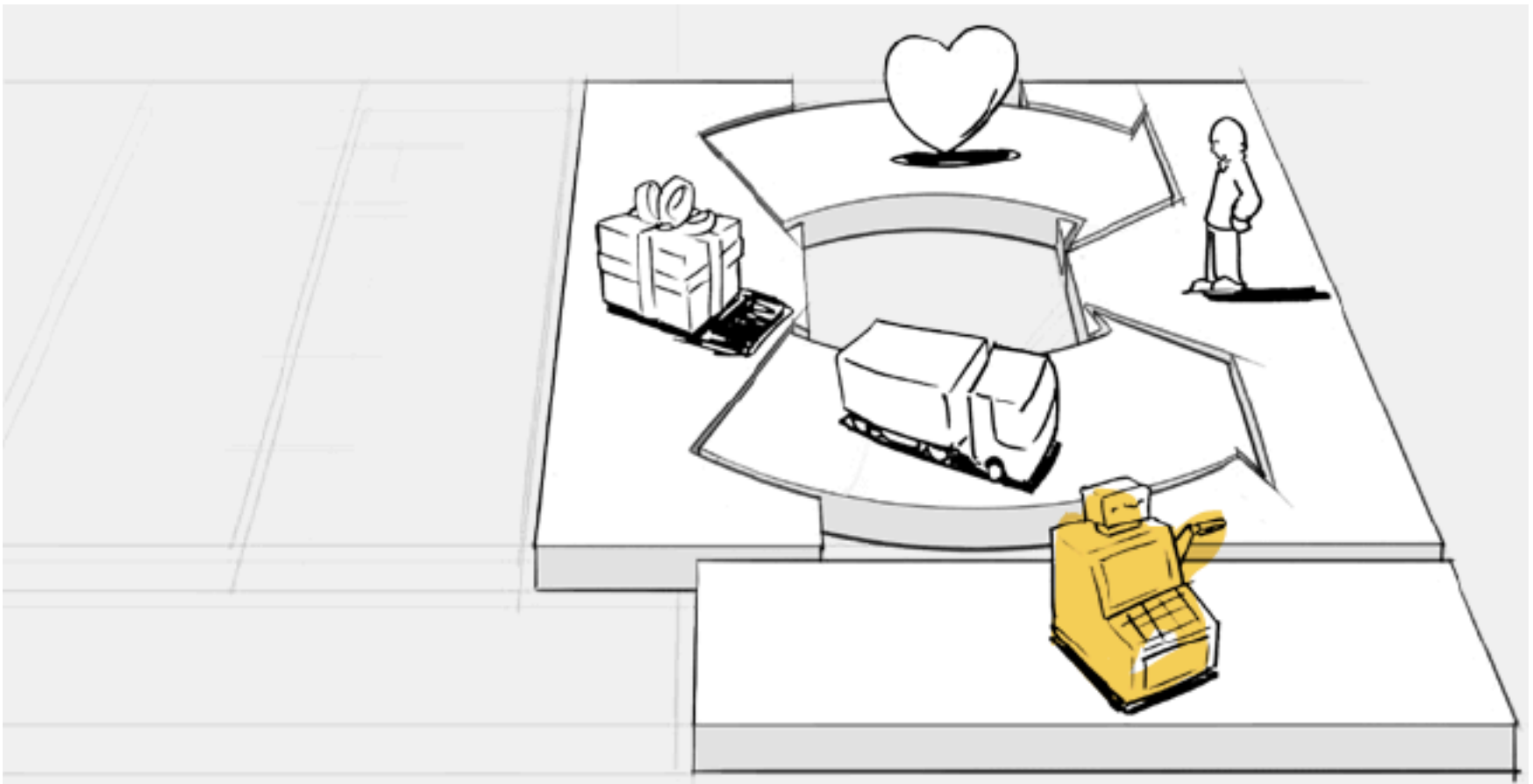
# 4. Customer Relationships

Describes the types of relationships a company establishes with specific Customer Segments



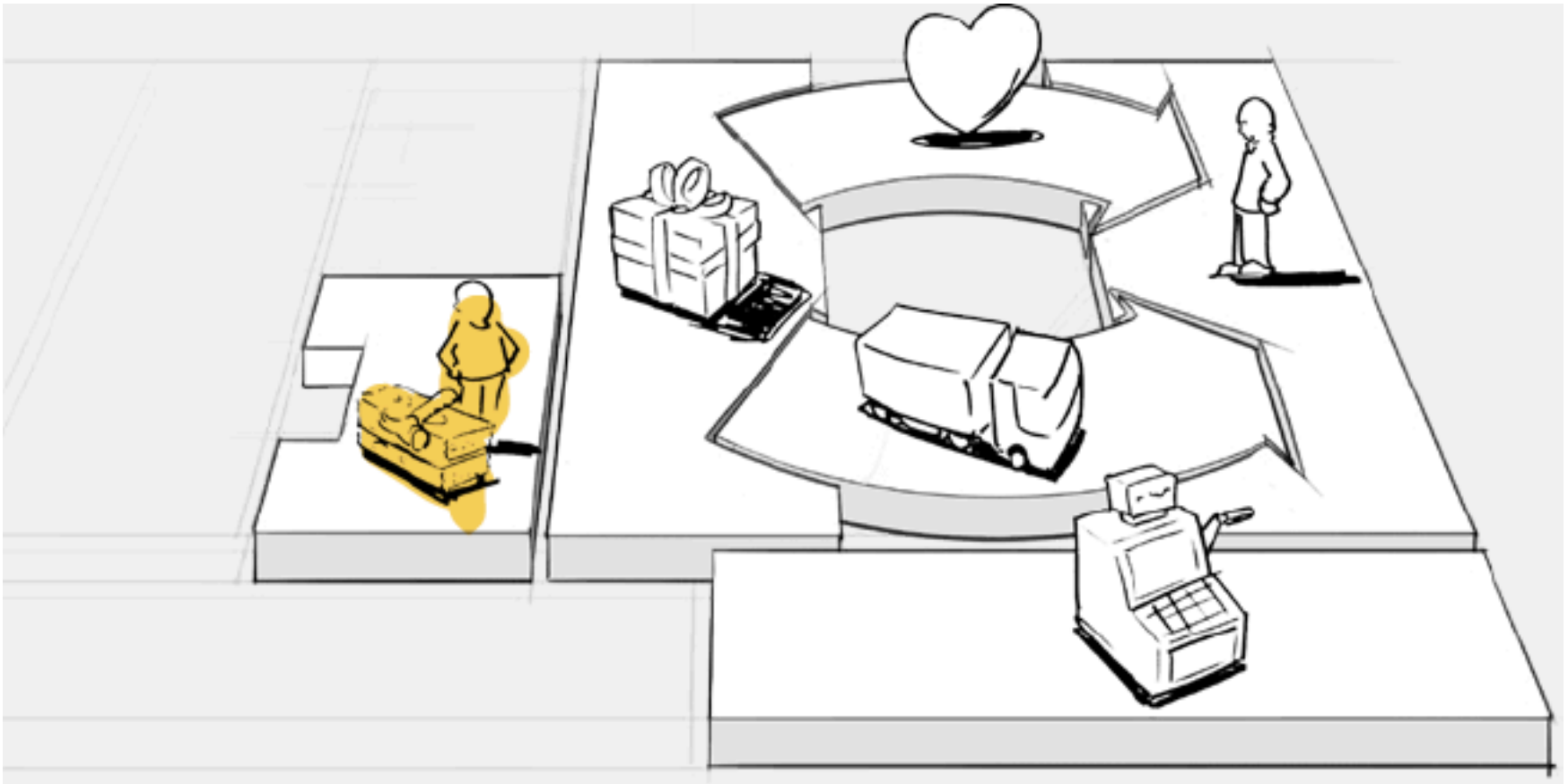
# 5. Revenue Streams

Represents the cash a company generates from each Customer Segment (costs must be subtracted from revenues to create earnings)



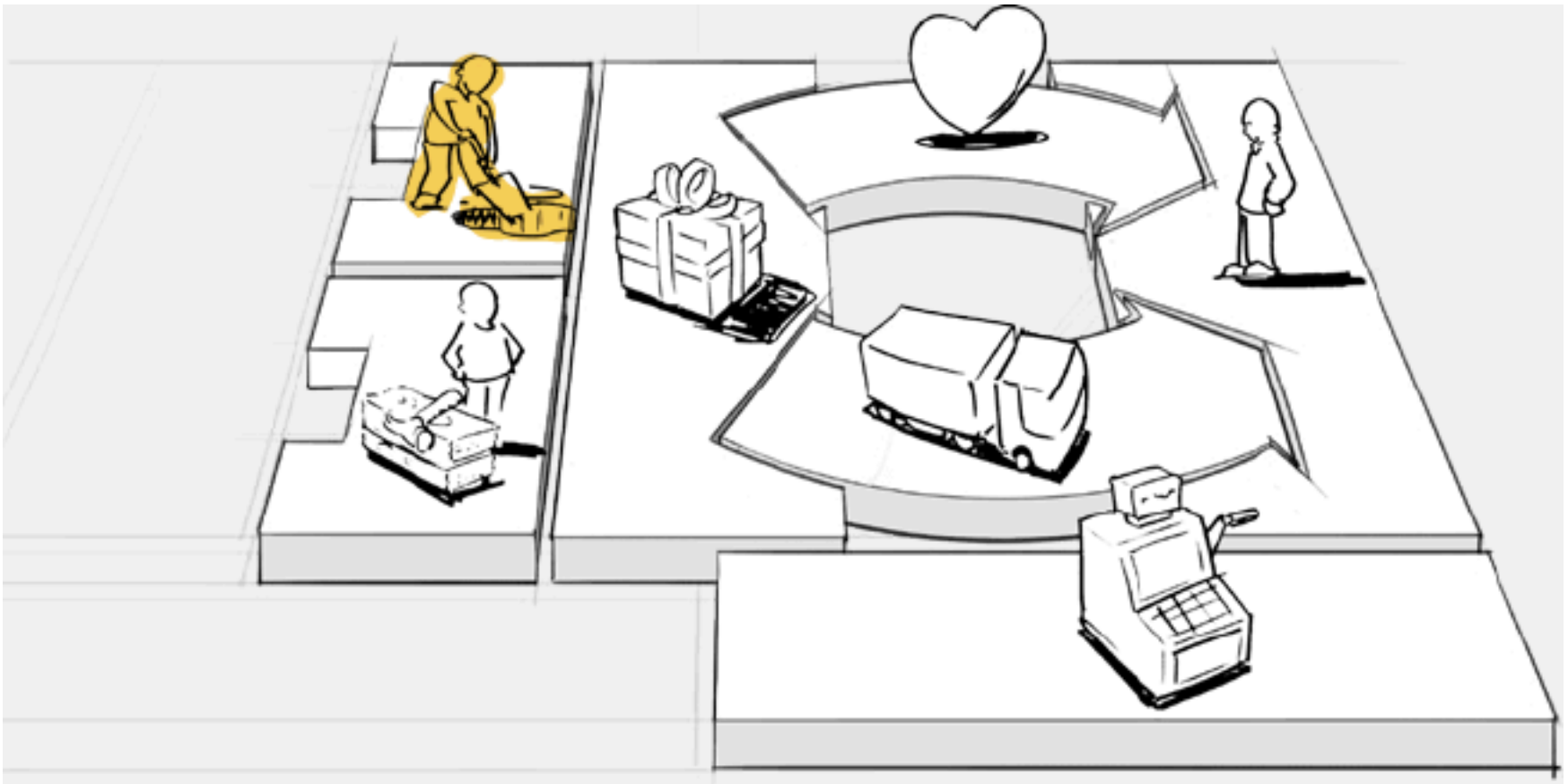
# 6. Key Resources

Describes the most important assets required to make a business model work



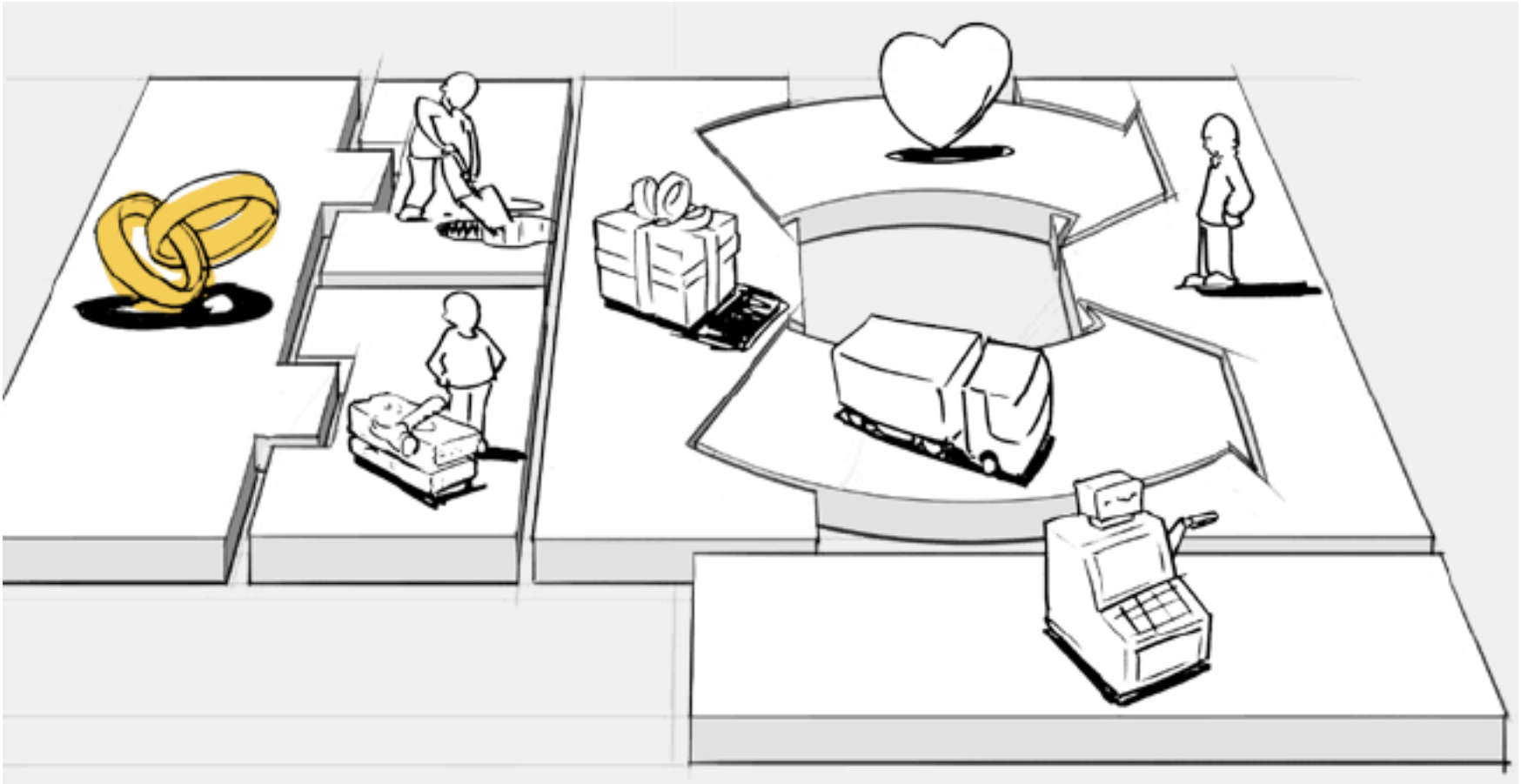
# 7. Key Activities

Describes the most important things a company must do to make its business model work



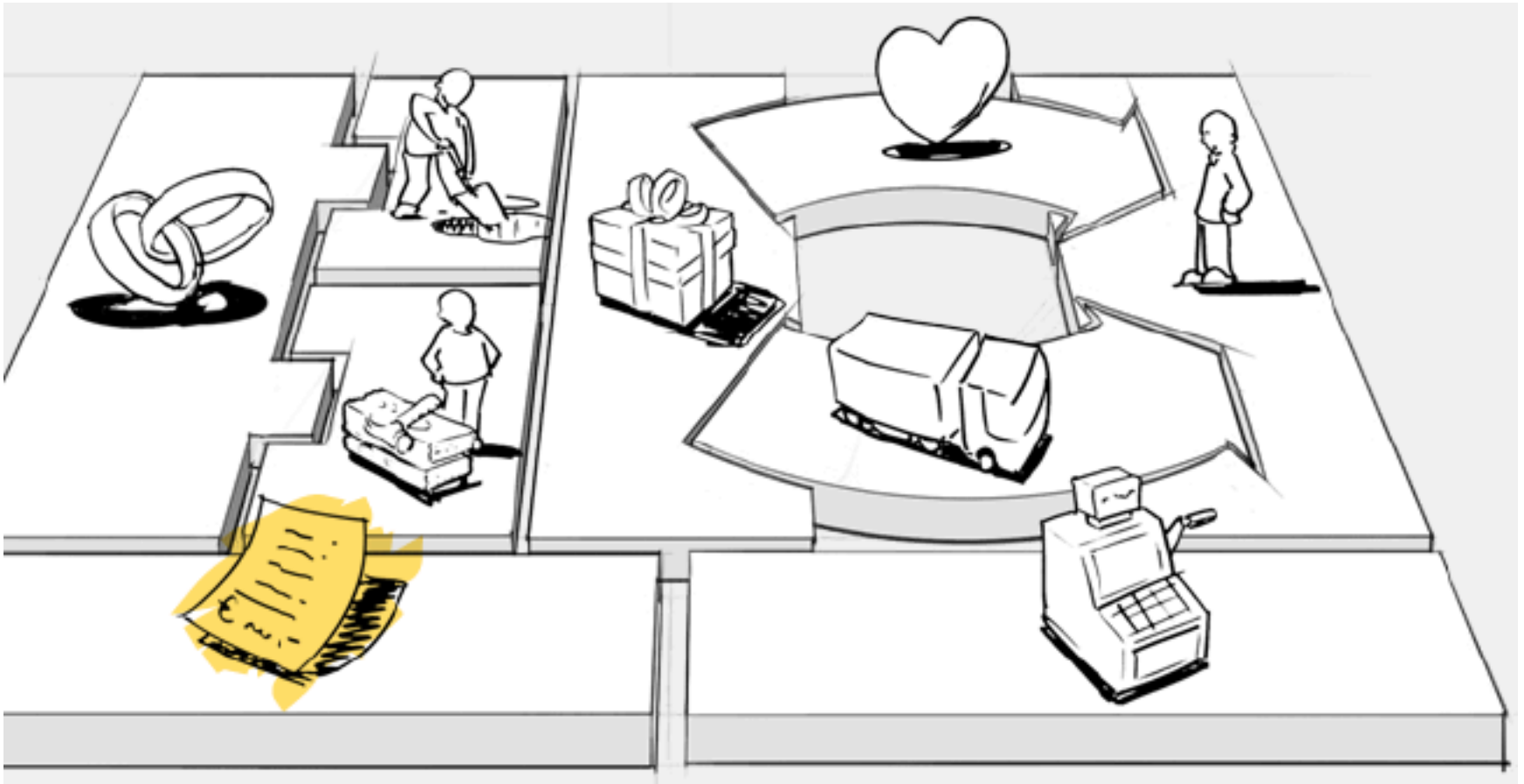
# 8. Key Partnerships

Describes the network of suppliers and partners that make the business model work



# 9. Cost Structure

Describes all costs incurred to operate a business model



# The 9 Building Blocks of Business Model

## 1. Customer Segments

- An organization serves one or several Customer Segments.

## 2. Value Propositions

- It seeks to solve customer problems and satisfy customer needs with value propositions.

## 3. Channels

- Value propositions are delivered to customers through communication, distribution, and sales Channels.

## 4. Customer Relationships

- Customer relationships are established and maintained with each Customer Segment.

# The 9 Building Blocks of Business Model

## 5. Revenue Streams

- Revenue streams result from value propositions successfully offered to customers.

## 6. Key Resources

- Key resources are the assets required to offer and deliver the previously described elements...

## 7. Key Activities

- ...by performing a number of Key Activities.

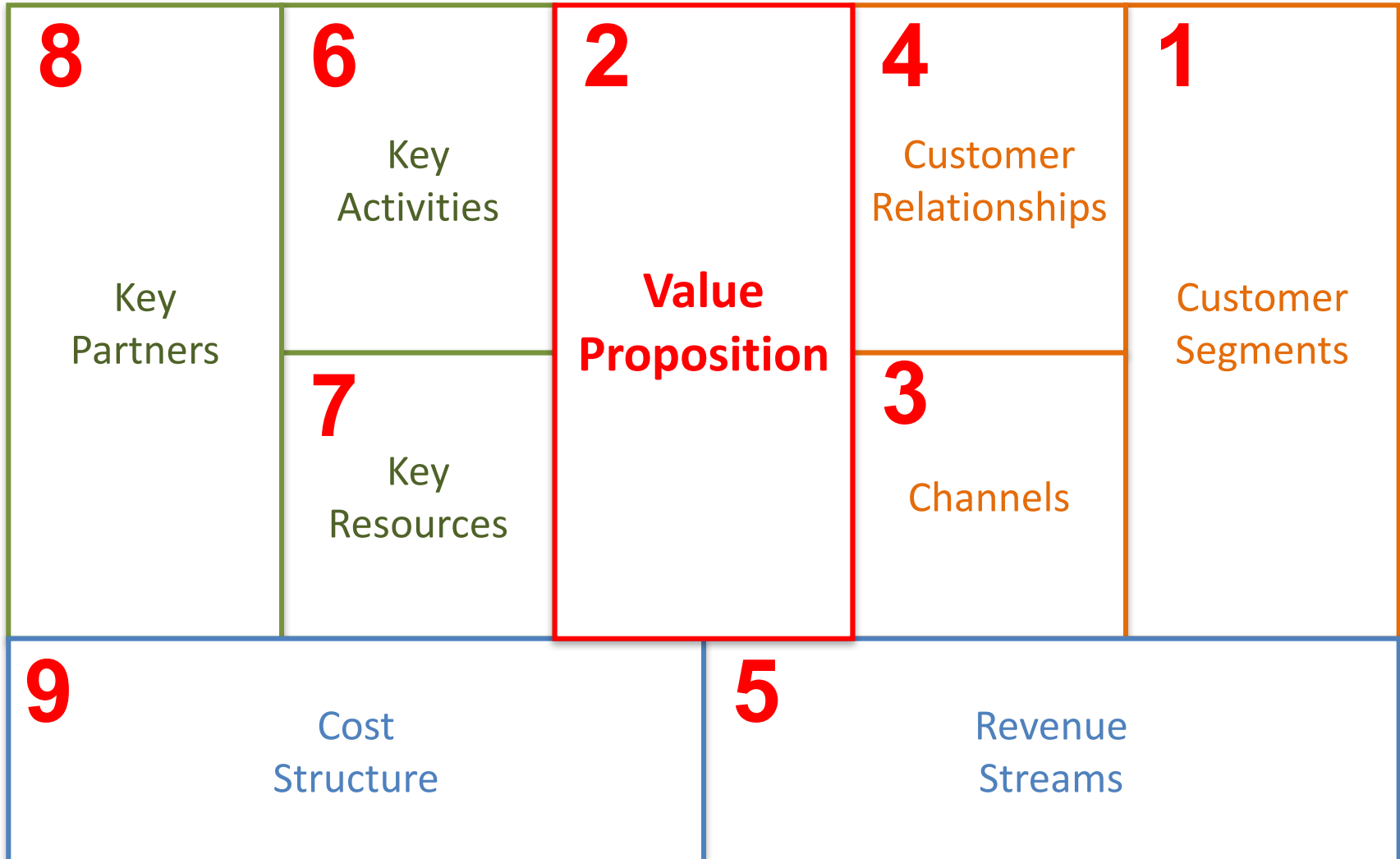
## 8. Key Partnerships

- Some activities are outsourced and some resources are acquired outside the enterprise.

## 9. Cost Structure

- The business model elements result in the cost structure.

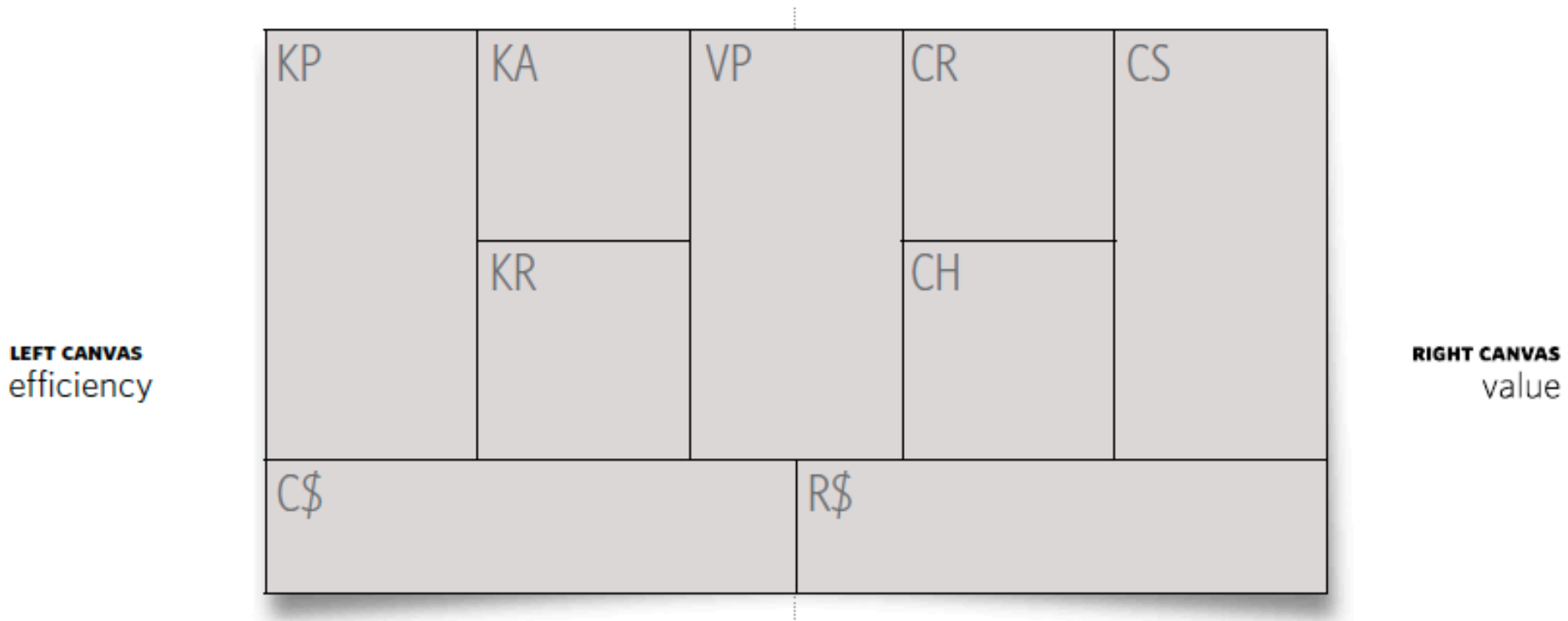
# Business Model

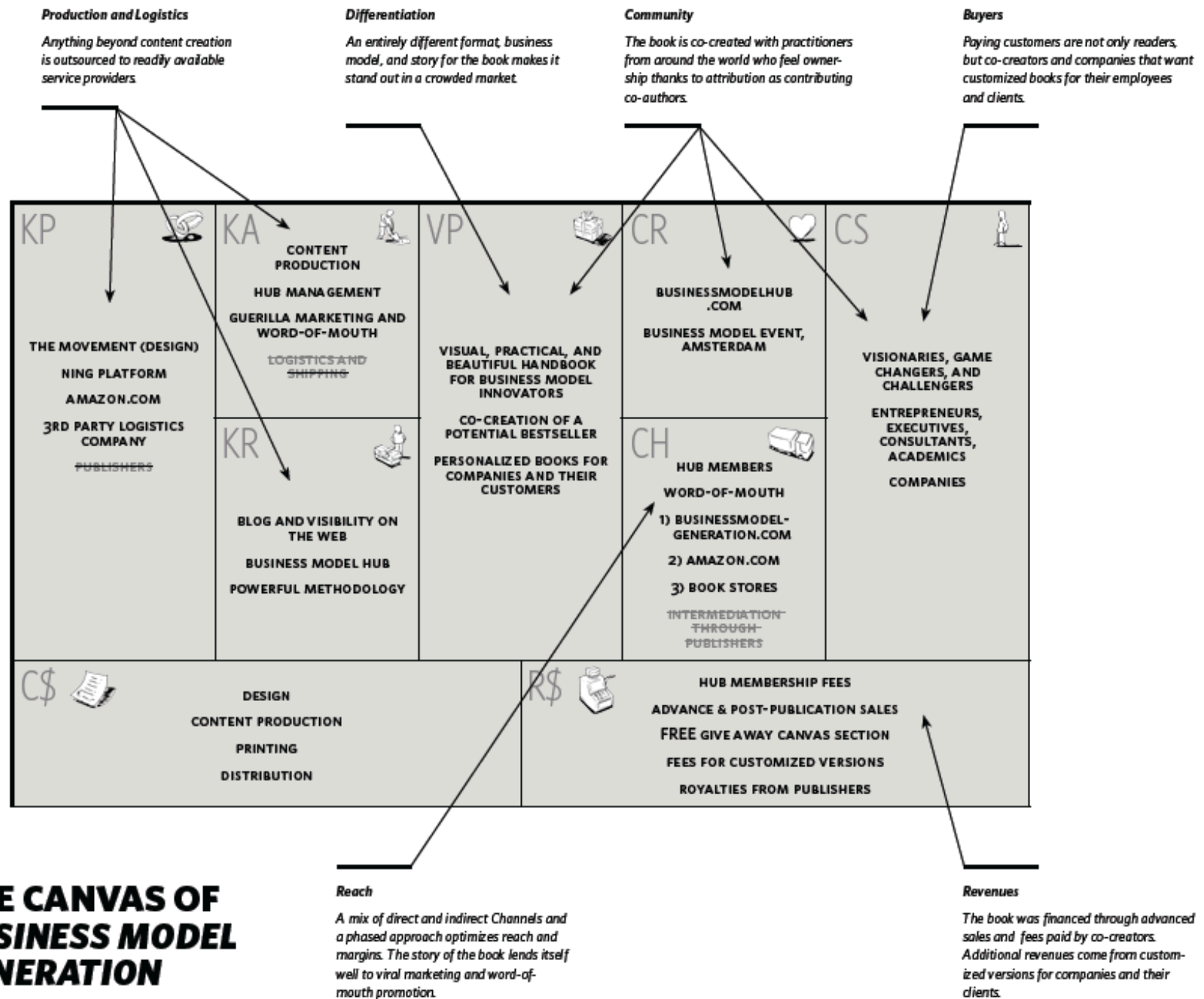


# Business Model Generation

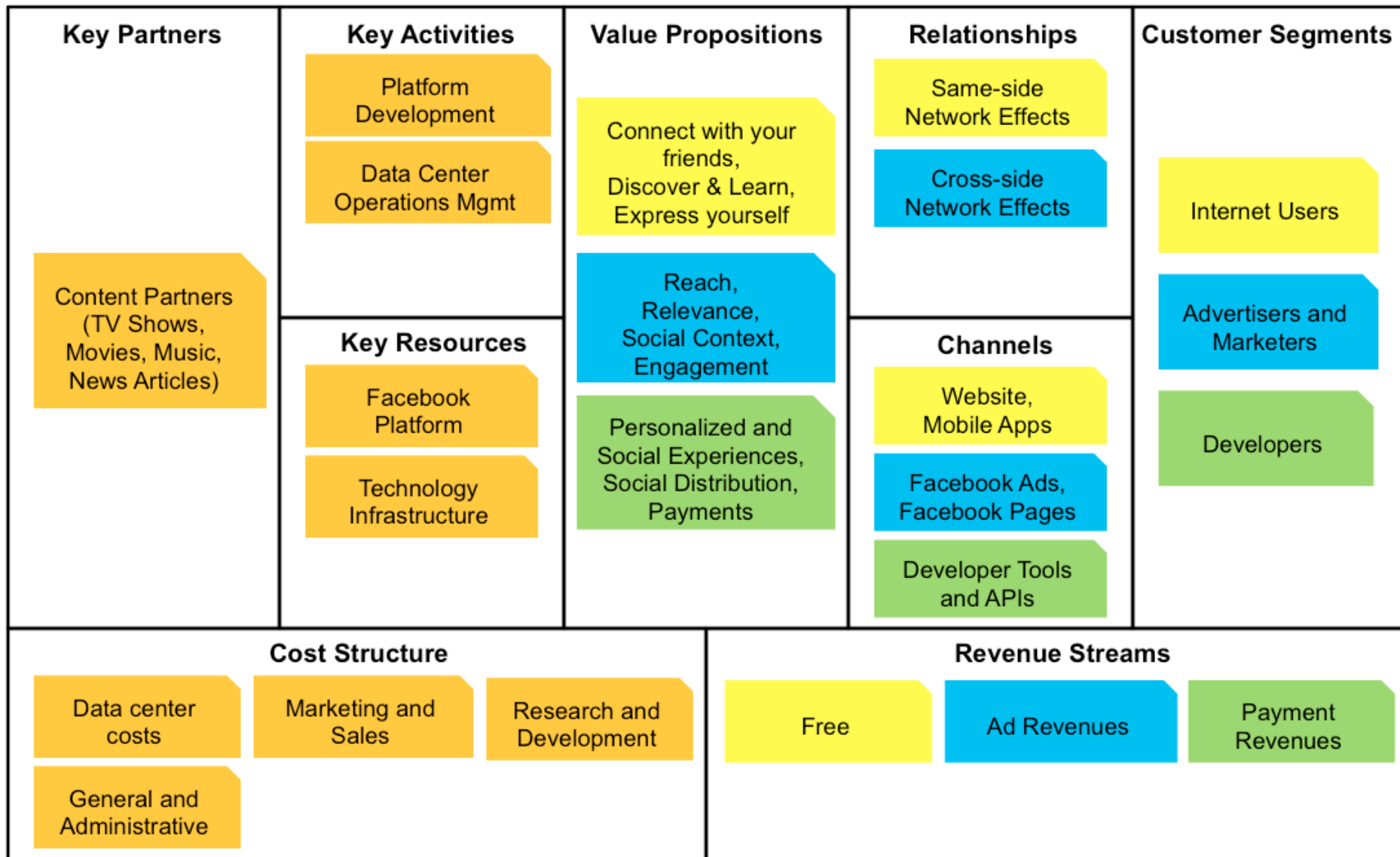


# Business Model Generation

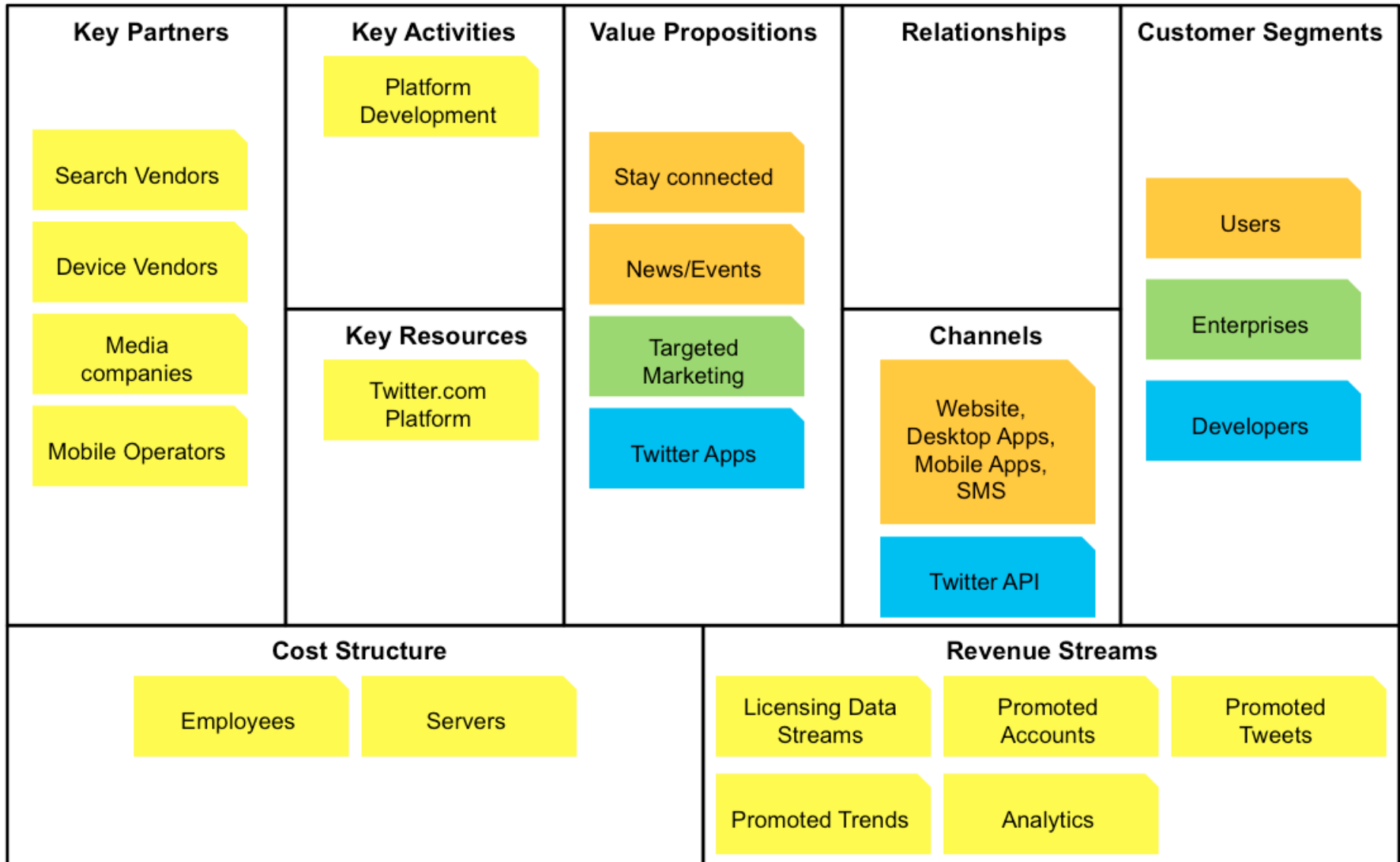




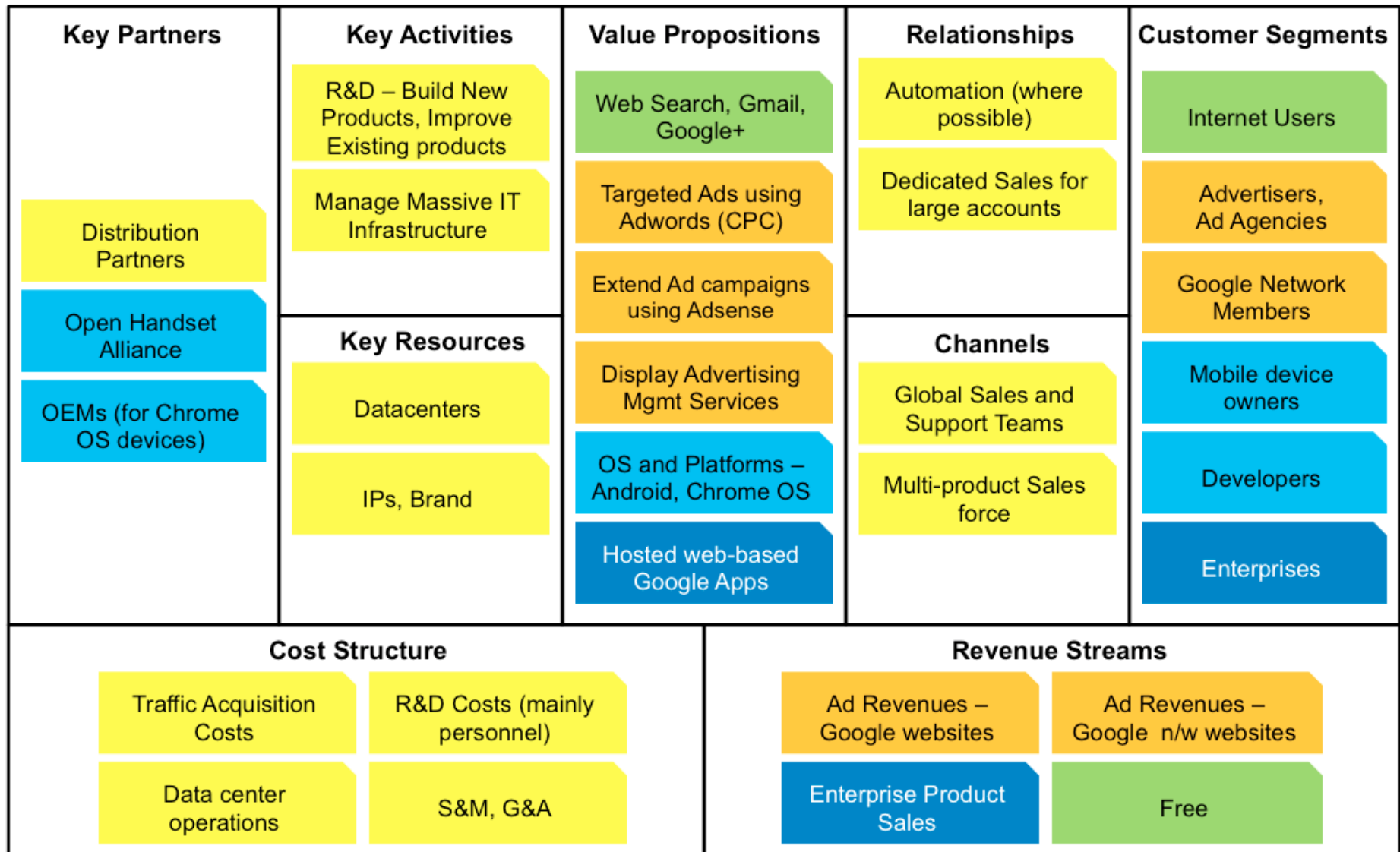
# Facebook – World's leading Social Networking Site (SNS)



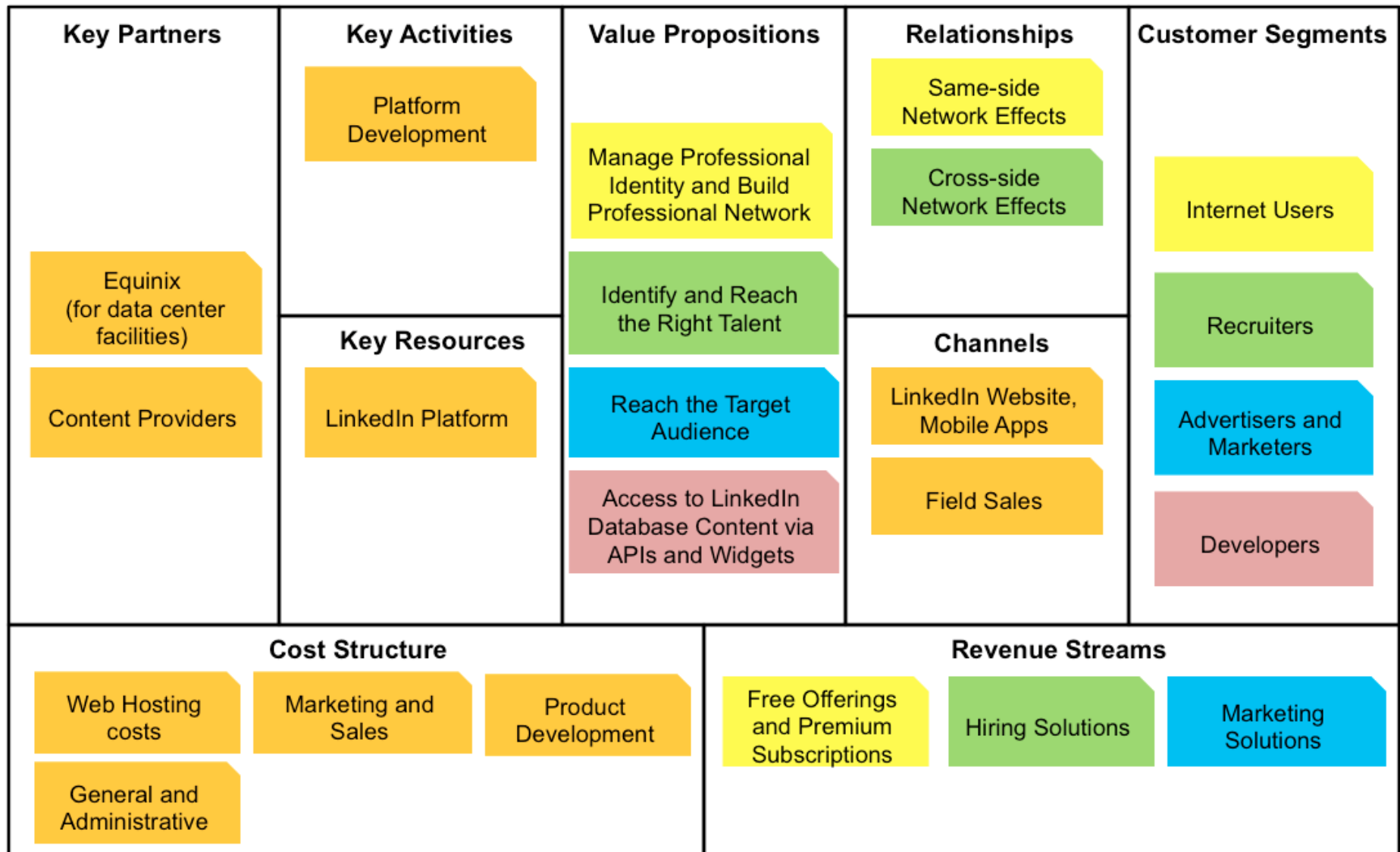
# Twitter Business Model



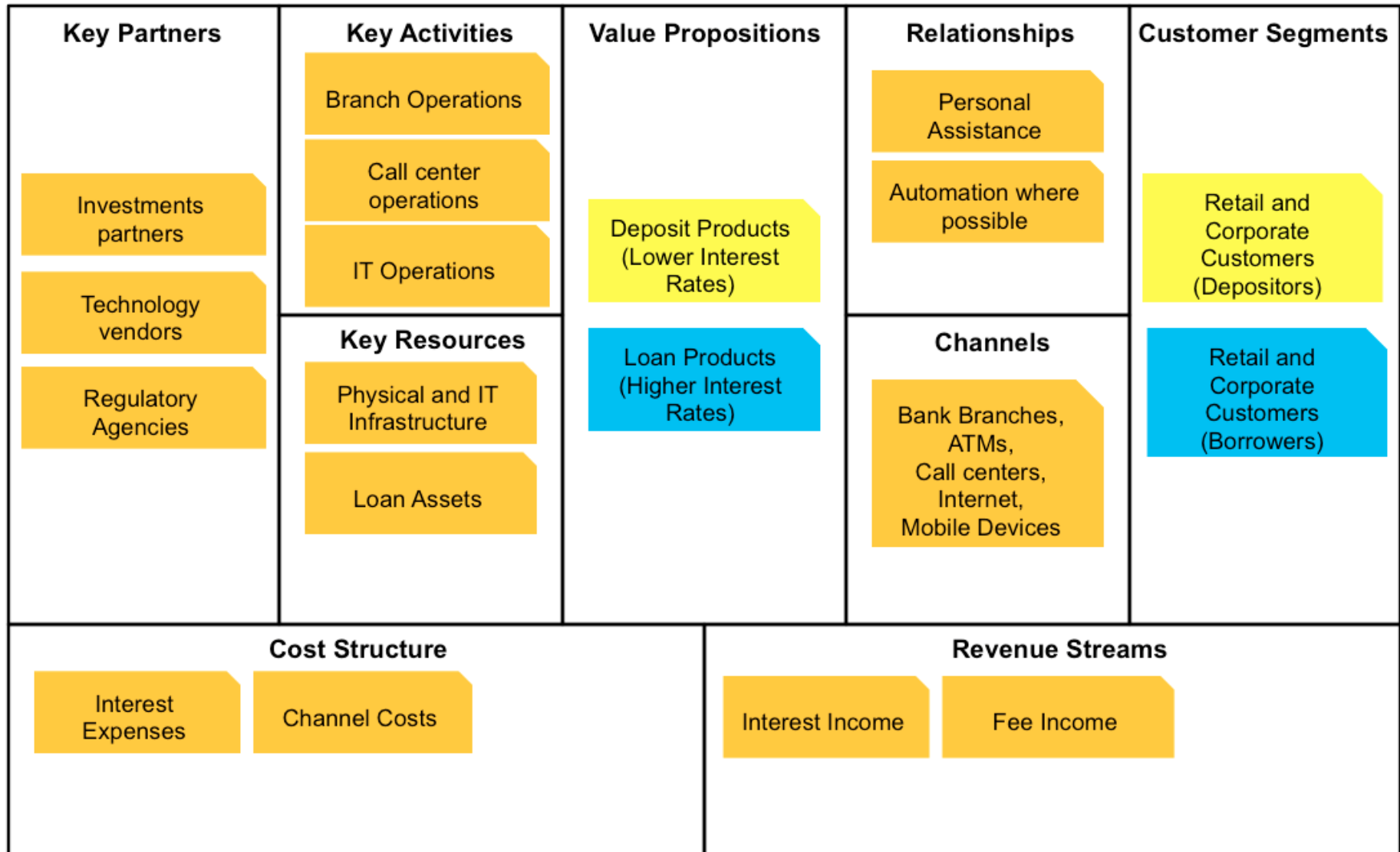
# Google Business Model



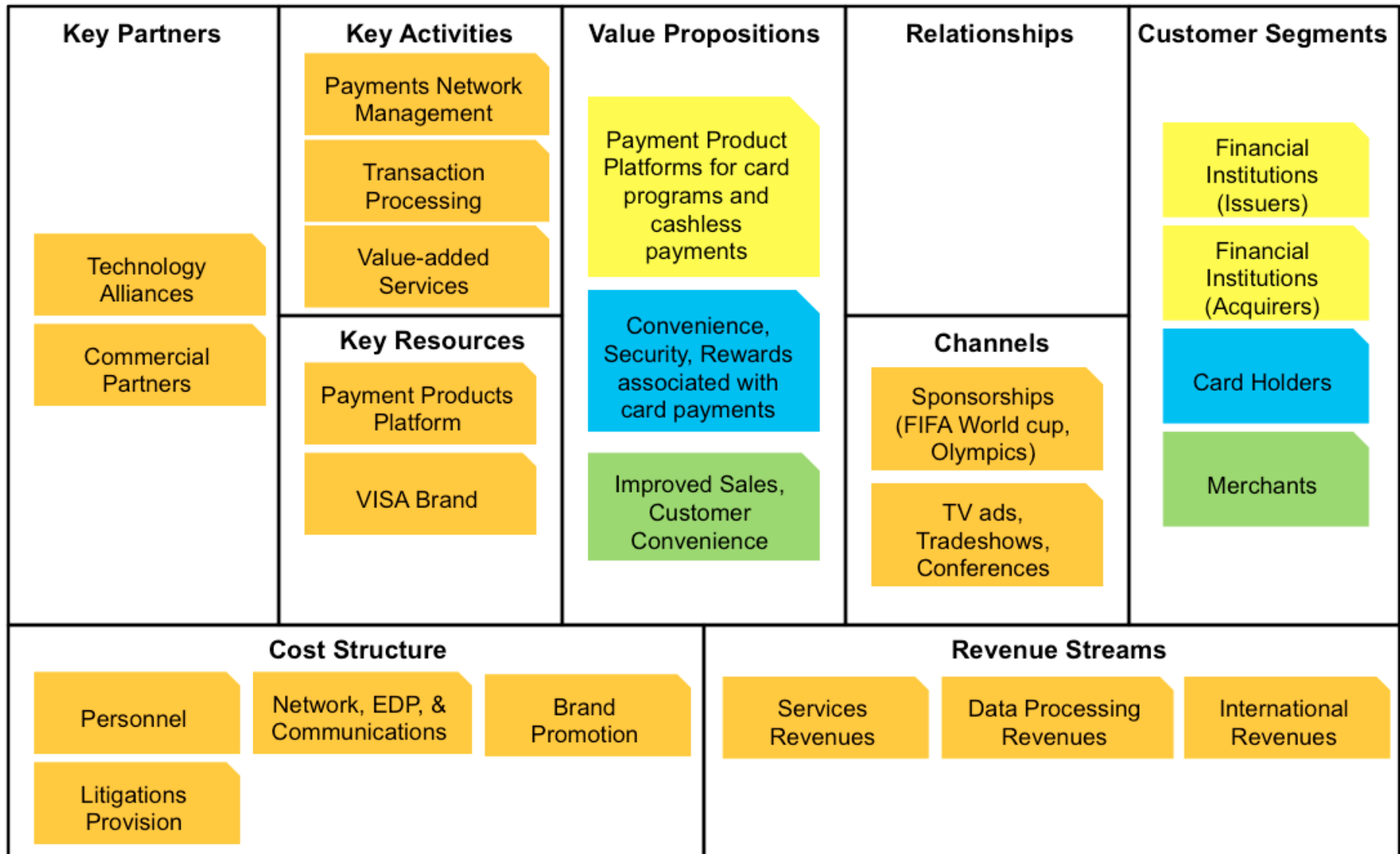
# LinkedIn – World's Largest Professional Network



## Business Model of Banking companies



## VISA – Leader in Global Payments Industry

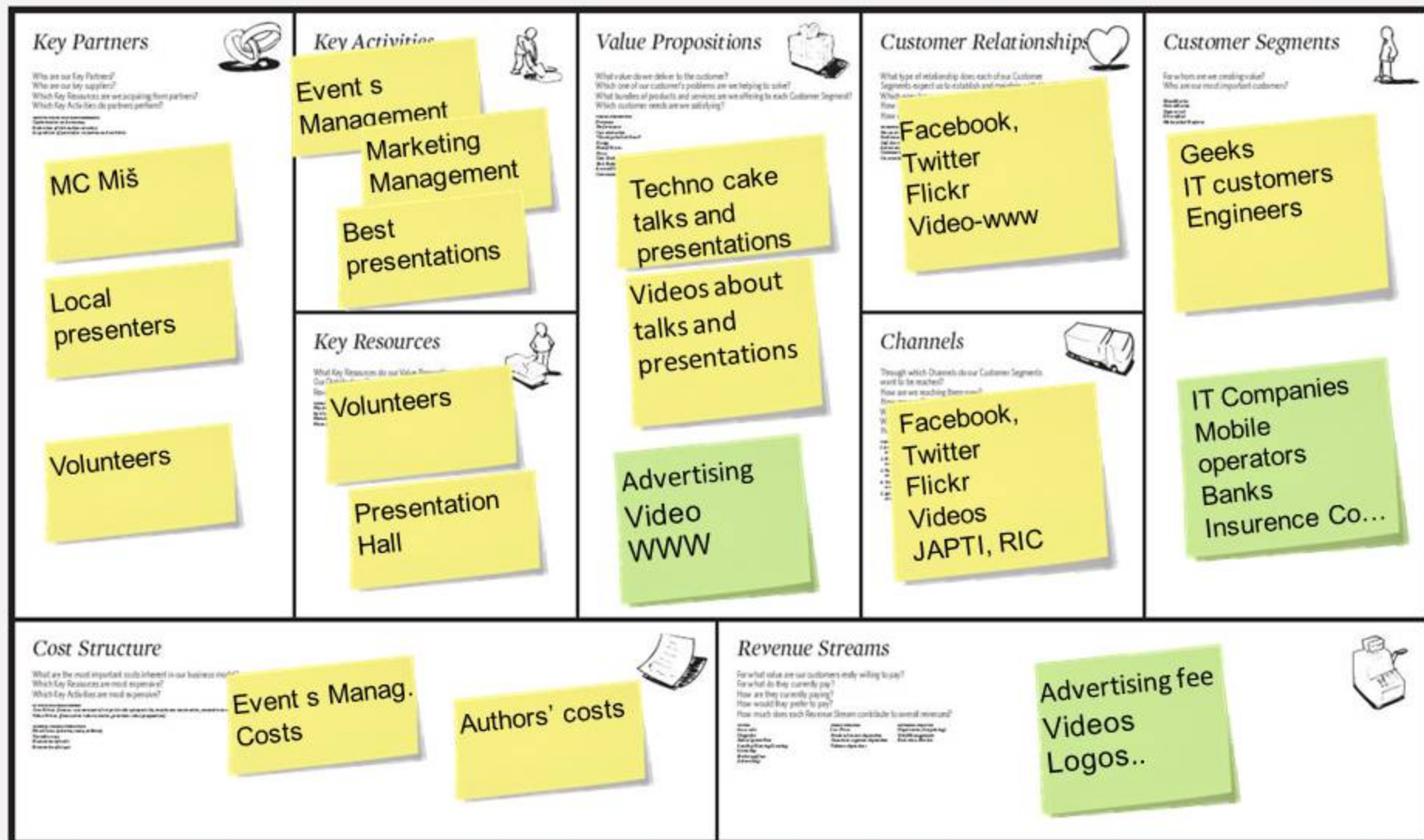


# The Business Model Canvas

Designed for: Techno Cake

Designed by: Danilo Tič

Date: 1.2.2011  
Iteration: 01



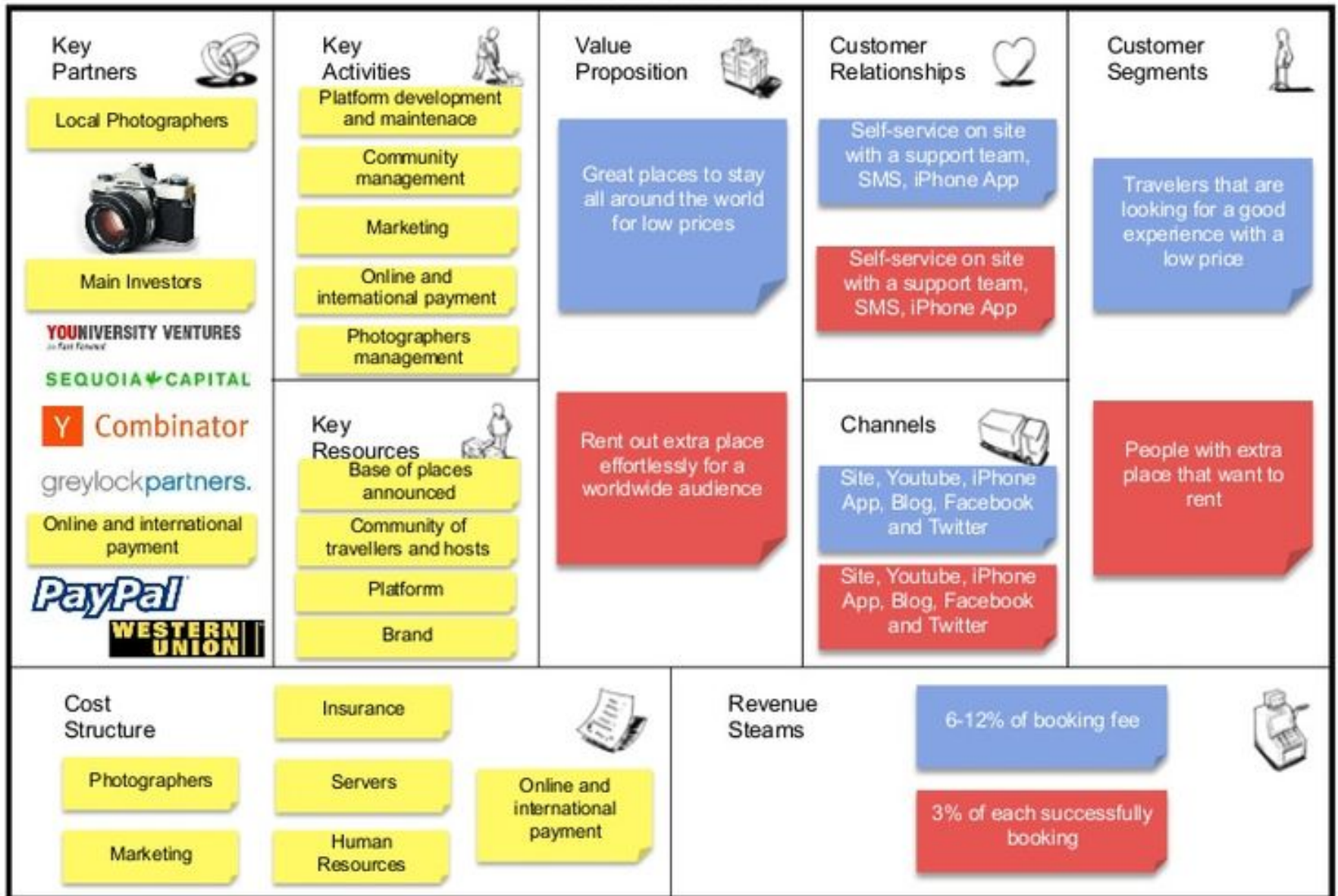
# How Airbnb Works?

## Insights into Business Model & Revenue Model



# Airbnb Business Model Canvas





# How Uber Works?

## Insights into Business Model & Revenue Model

# Uber Business Model Canvas



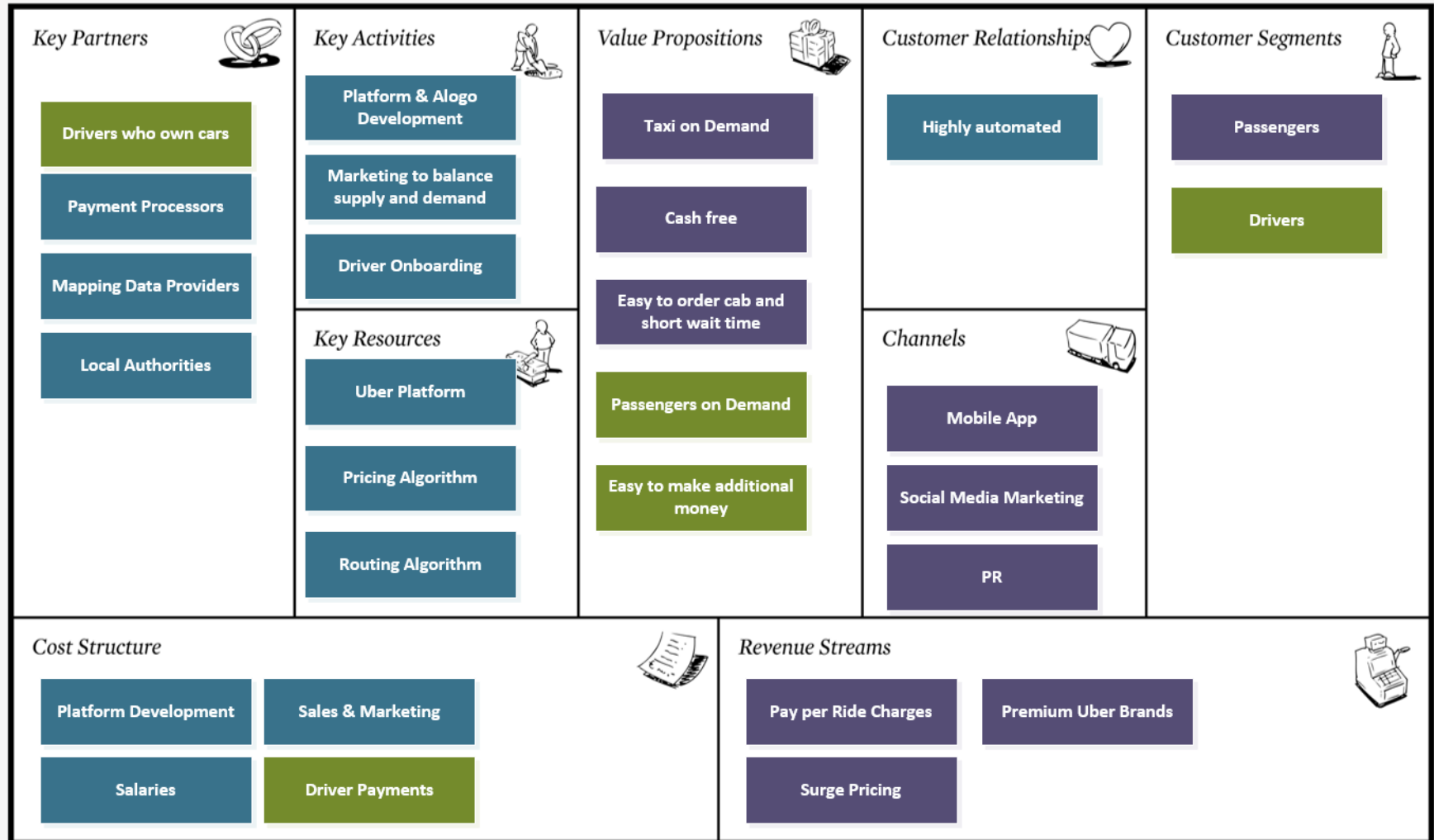
# Uber Business Model Canvas

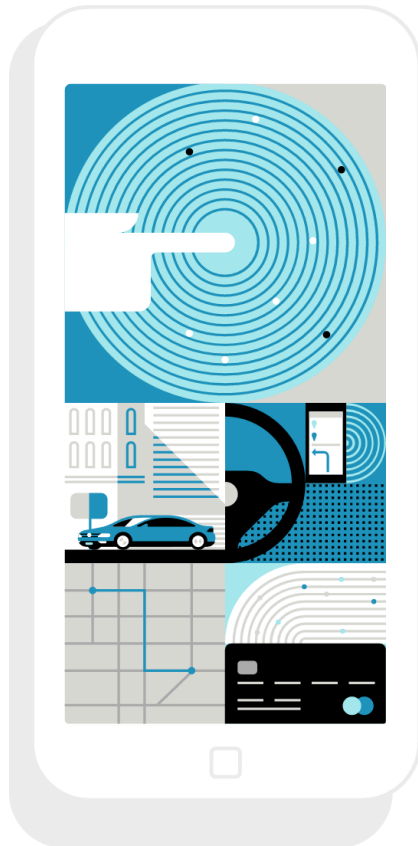
## The Business Model Canvas

Designed for:  
**Uber**

Designed by:  
**Denis Oakley**

On: 27 / 1 / 2016  
Iteration: 1.0





## Tap the app, get a ride

Uber is the smartest way to get around. One tap and a car comes directly to you. Your driver knows exactly where to go.

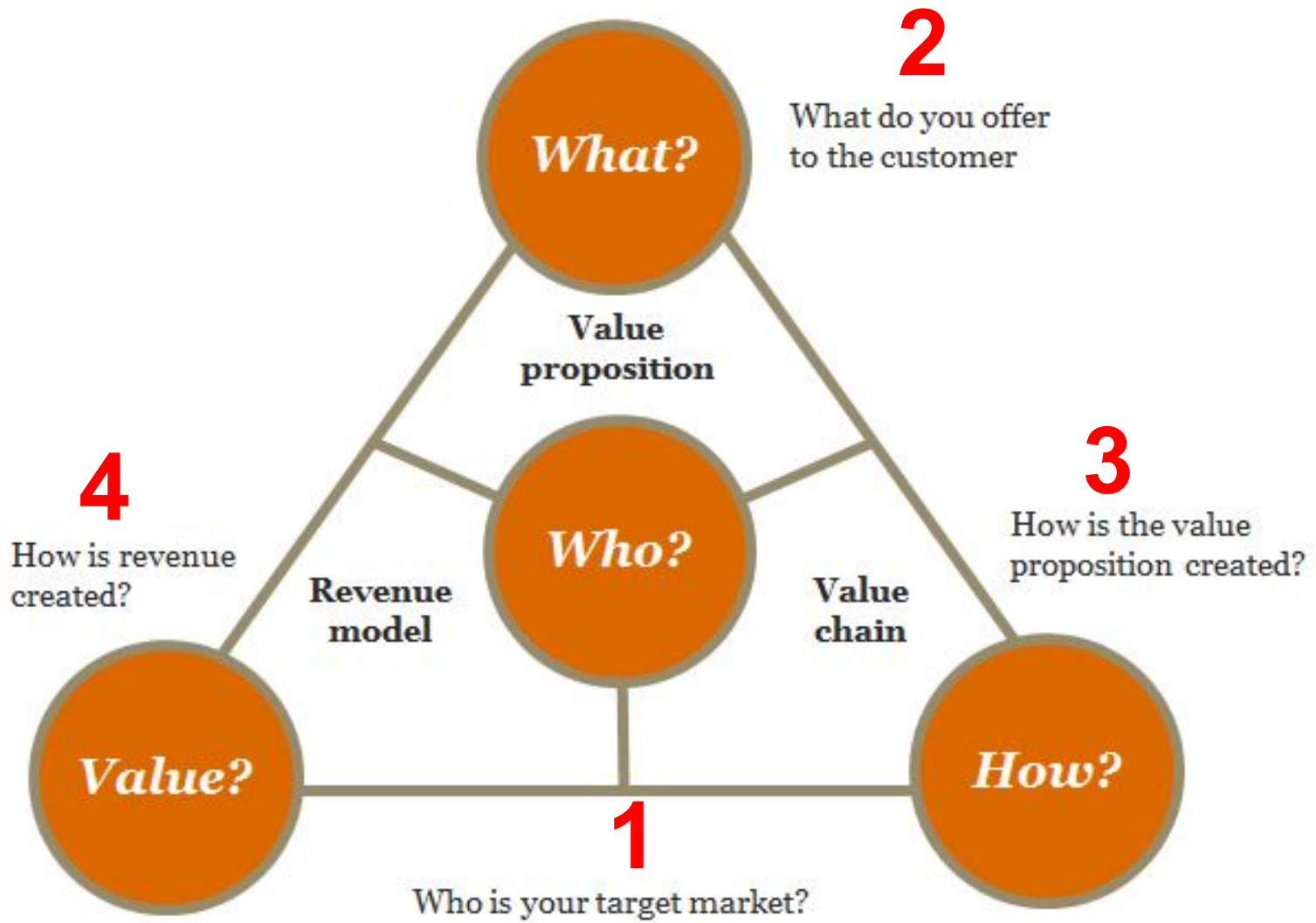
[MORE REASONS TO RIDE >](#)

# Come up with Killer Startup ideas



REDUCE	CREATE
Time to wait Hassels of paying money Insure fare & waiting time	Ease of use Platform connecting customers&d Extra Revenues for Drivers
RAISE	ELIMINATE
Chances of getting taxis Quality (ratings) Insurance (Location tracking)	Uncertainty of getting taxis Waving hands to stop taxi

# Structure of a Business Model



# Customer Value

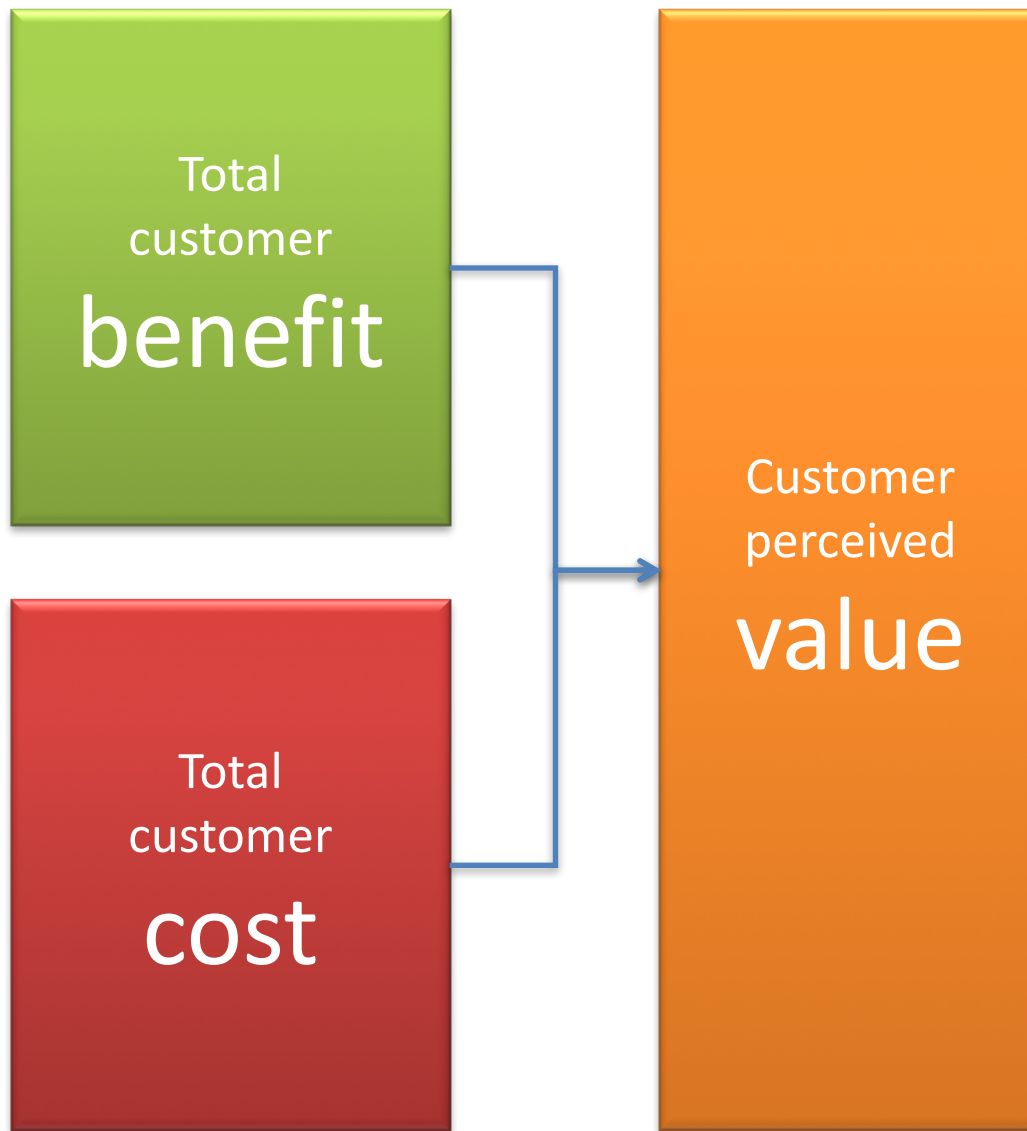
**Marketing**

**“Meeting  
needs  
profitably”**

# Value

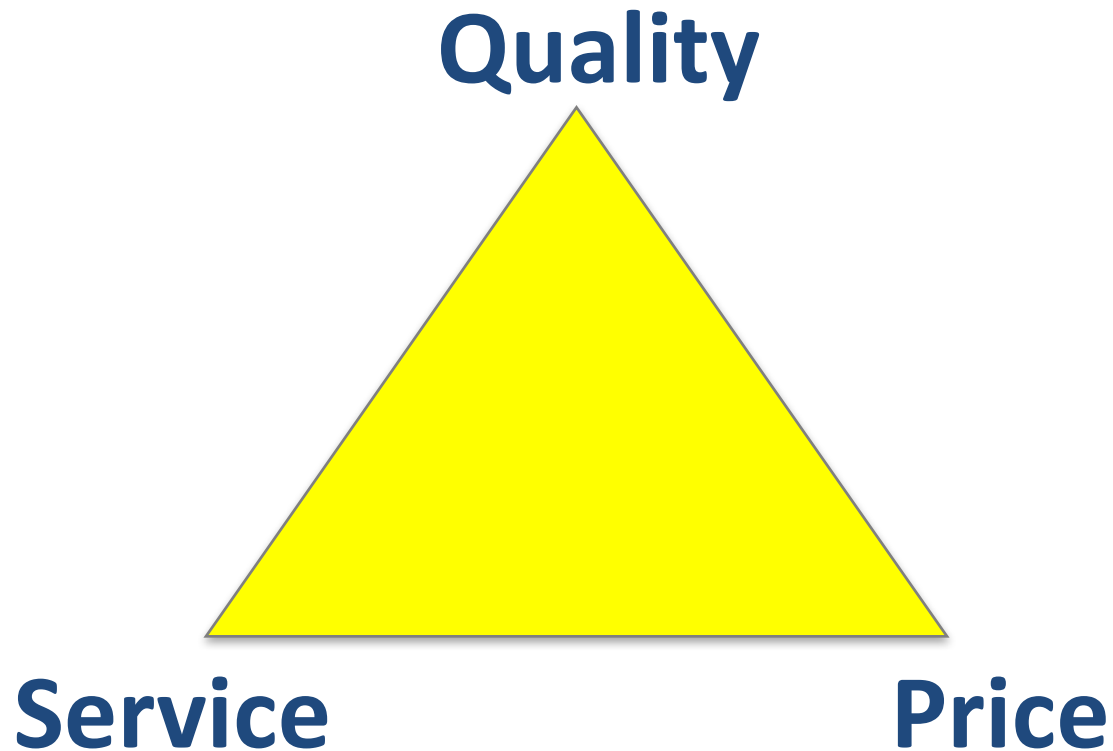
the sum of the  
tangible and  
intangible  
benefits and costs

# Value



# Customer Value Triad

Quality, Service, and Price  
(qsp)

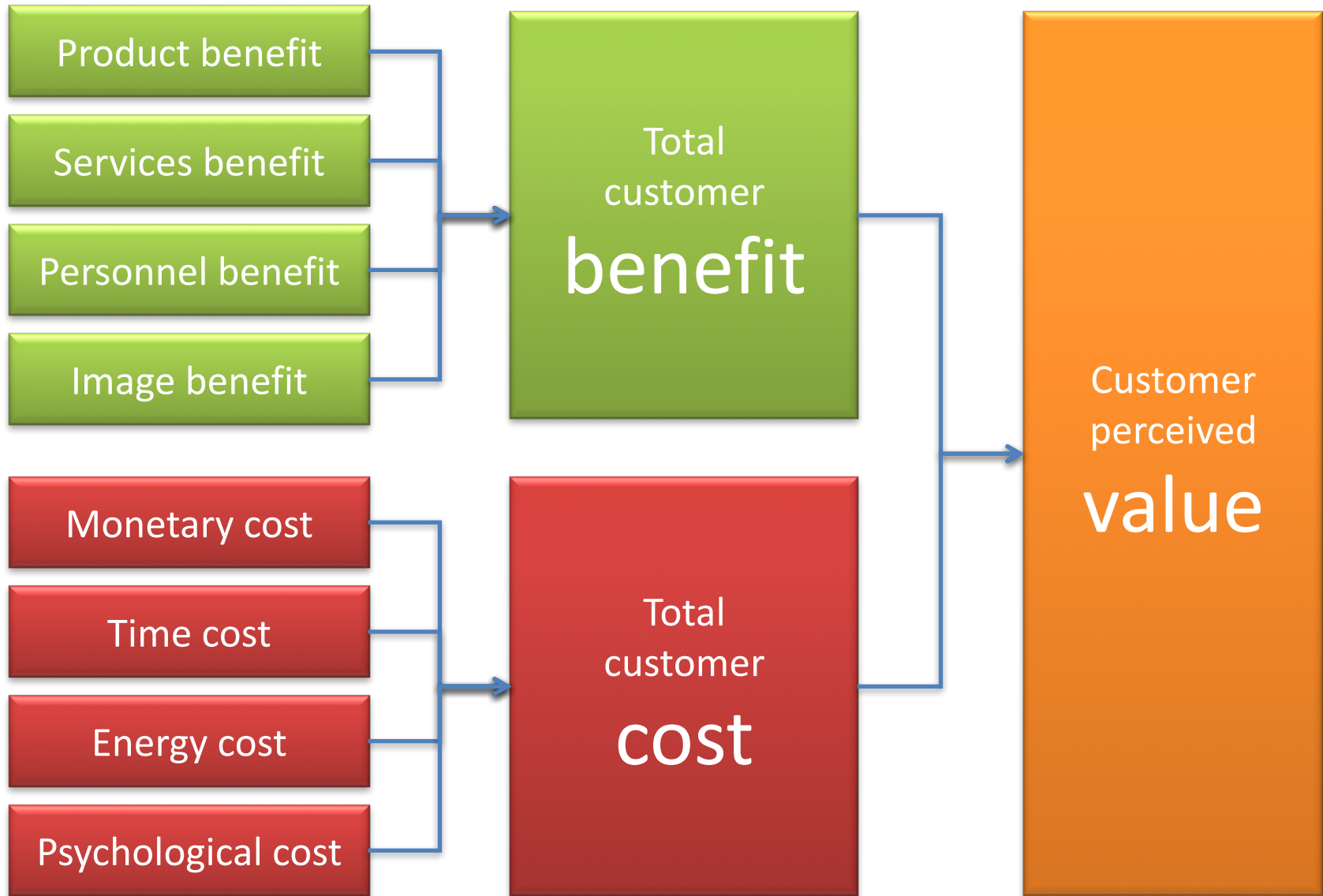


# Value and Satisfaction

- Marketing
  - identification, creation, communication, delivery, and monitoring of **customer value**.
- Satisfaction
  - a person's judgment of a product's **perceived performance** in relationship to **expectations**

# **Building Customer Value, Satisfaction, and Loyalty**

# Customer Perceived Value



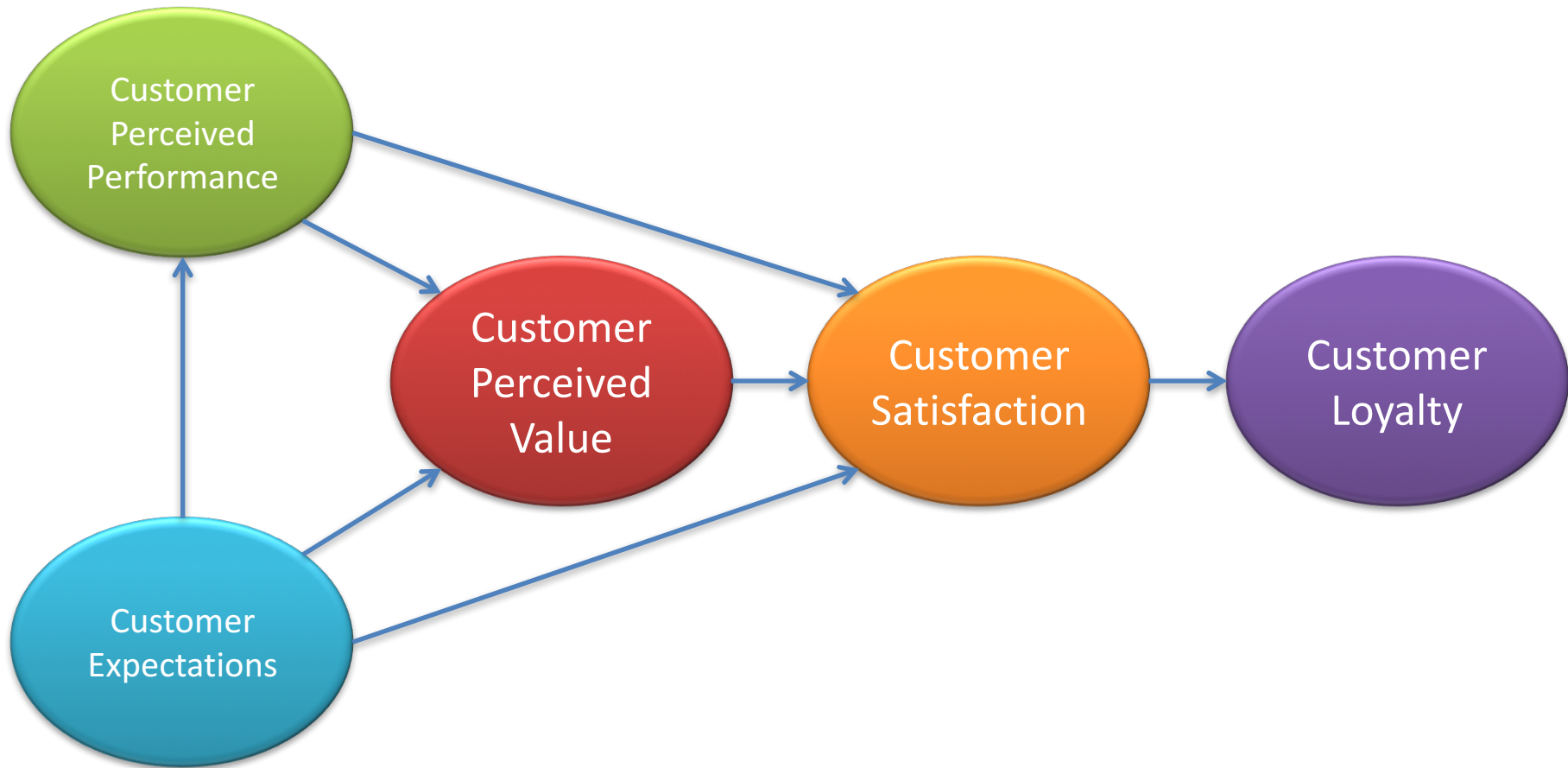
# Satisfaction

“a person’s feelings of pleasure or disappointment that result from comparing a product’s perceived performance (or outcome) to expectations”

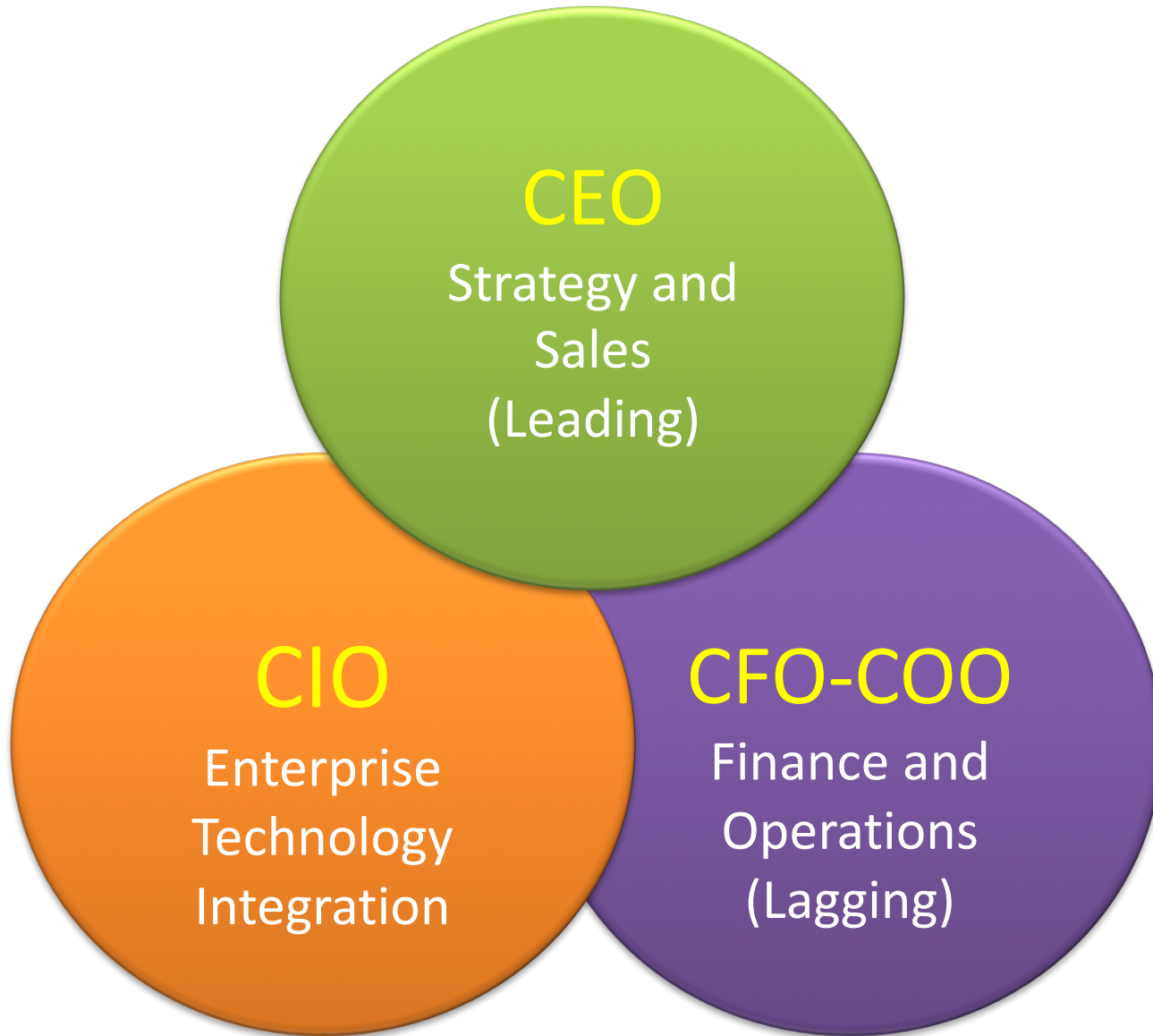
# Loyalty

**“a deeply held commitment to  
rebuy or repatronize  
a preferred product or service  
in the future  
despite situational influences and  
marketing efforts having the  
potential to cause switching  
behavior.”**

# Customer Perceived Value, Customer Satisfaction, and Loyalty



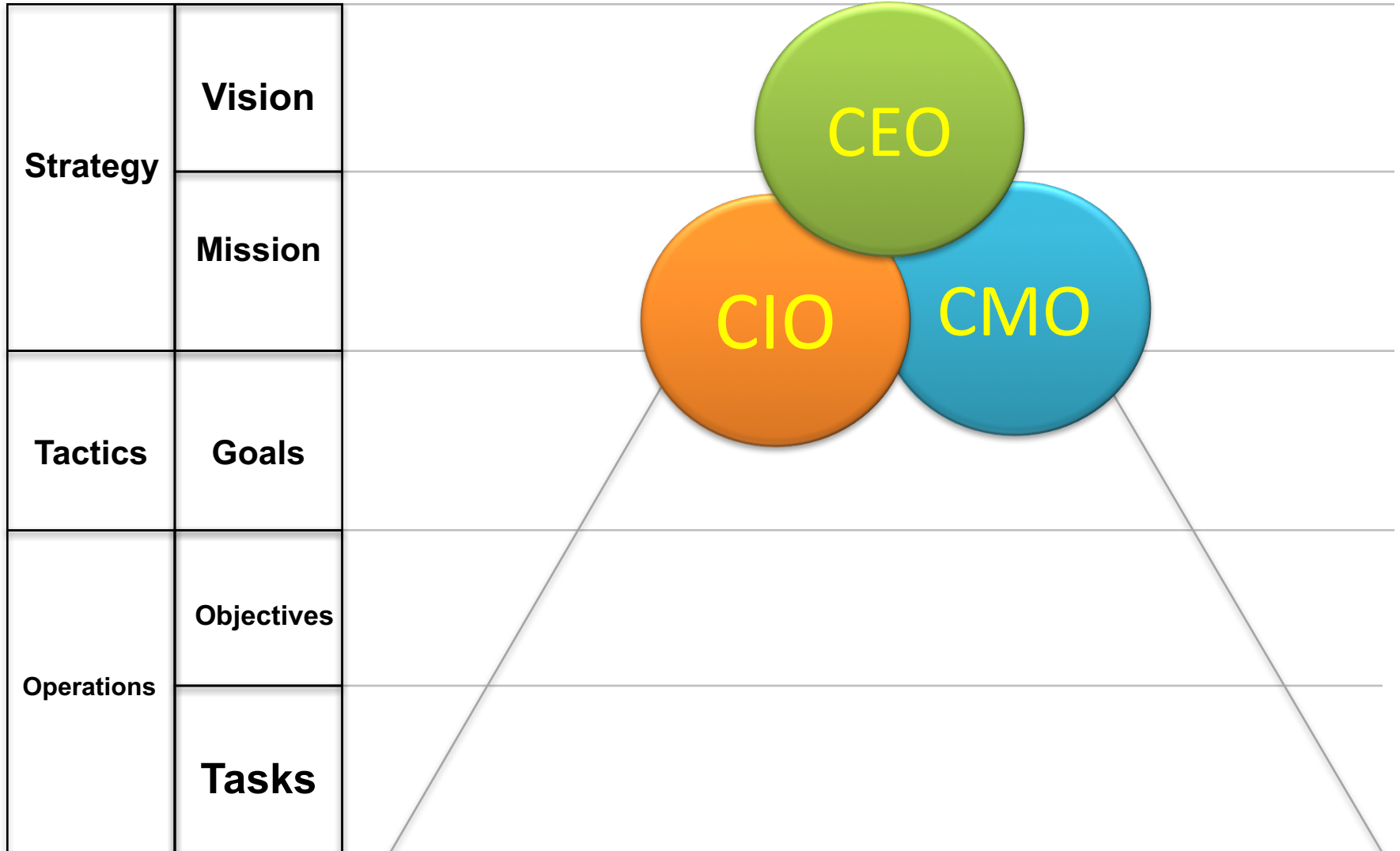
# CEO CIO CFO



# CEO CIO CMO



# CEO CIO CMO



**Nothing  
is  
so practical  
as a  
good theory**

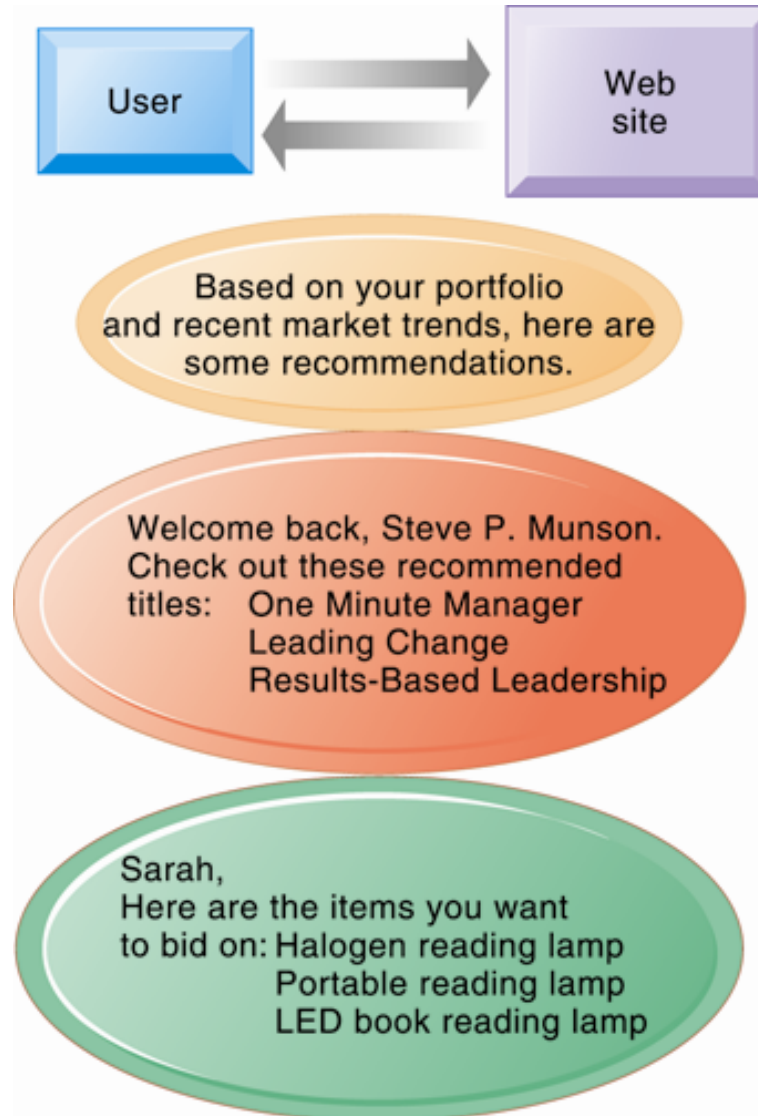
# Social Networking and the Wisdom of Crowds

- Most popular Web 2.0 service: social networking
  - Social shopping sites: Swap shopping ideas with friends
- Wisdom of crowds
- Crowdsourcing
  - Large numbers of people can make better decisions about topics and products than a single person.
- Prediction markets
  - Peer-to-peer betting markets on specific outcomes (elections, sales figures, designs for new products)

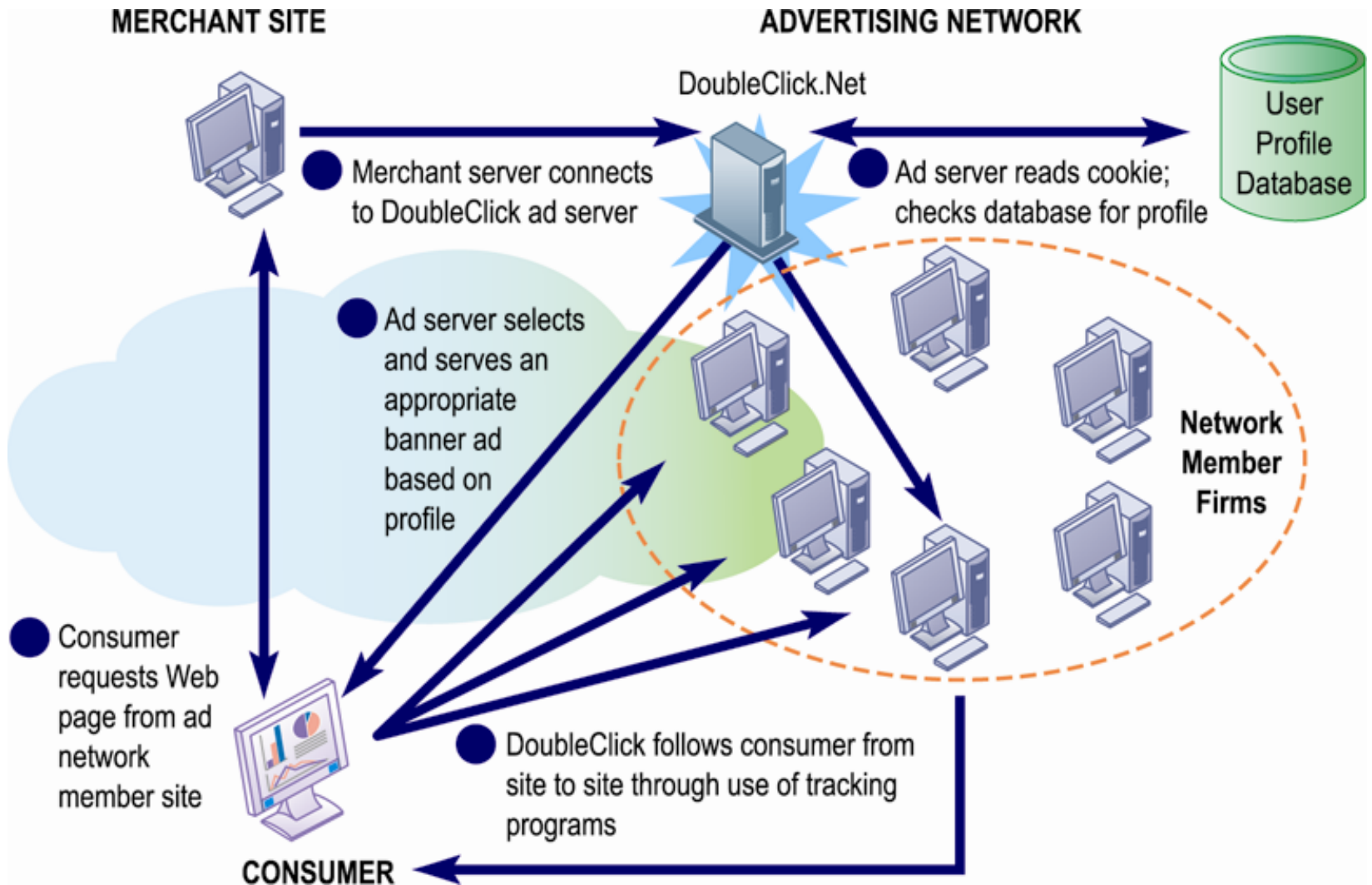
# E-commerce Marketing

- Internet provides new ways to identify and communicate with customers.
- Long tail marketing:
  - Ability to reach a large audience inexpensively
- Behavioral targeting:
  - Tracking online behavior of individuals on thousands of Web sites
- Internet advertising formats
  - Search engine marketing, display ads, rich media, e-mail, and so on

# Web Site Personalization



# How an Advertising Network Works



# Social E-commerce

- Social e-commerce:
  - Based on digital social graph
    - Mapping of all significant online relationships
- Four features of social e-commerce driving its growth
  - Social sign-on
  - Collaborative shopping
  - Network notification
  - Social search (recommendations)

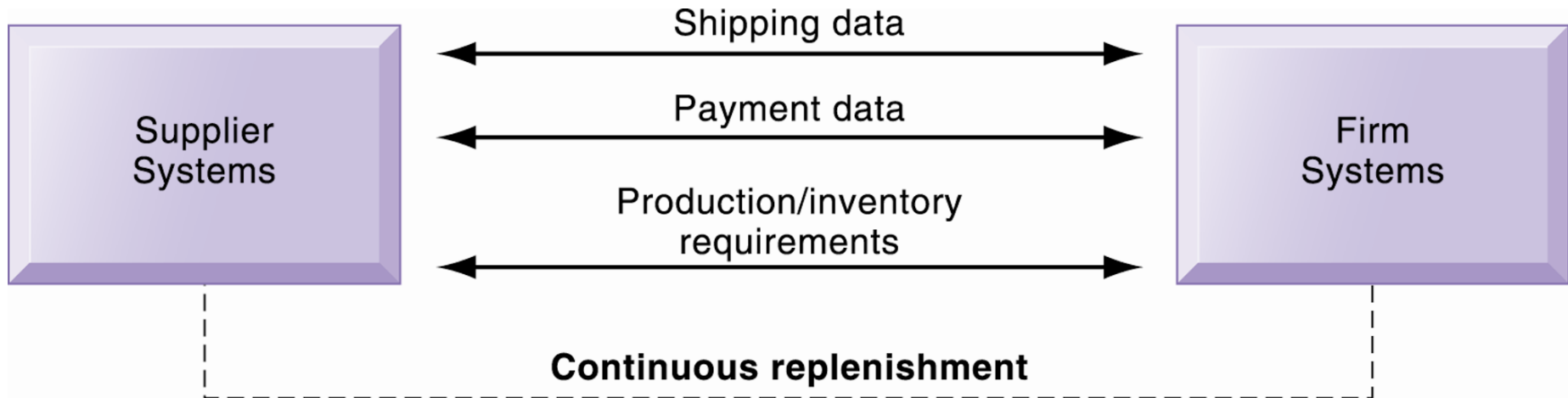
# Social Media Marketing

- Social media:
  - Fastest growing media for branding and marketing
- Social network marketing:
  - Seeks to leverage individuals influence over others in social graph
  - Target is a social network of people sharing interests and advice
  - Facebook's "Like button"
  - Social networks have huge audiences
  - Facebook: 150 million U.S. visitors monthly

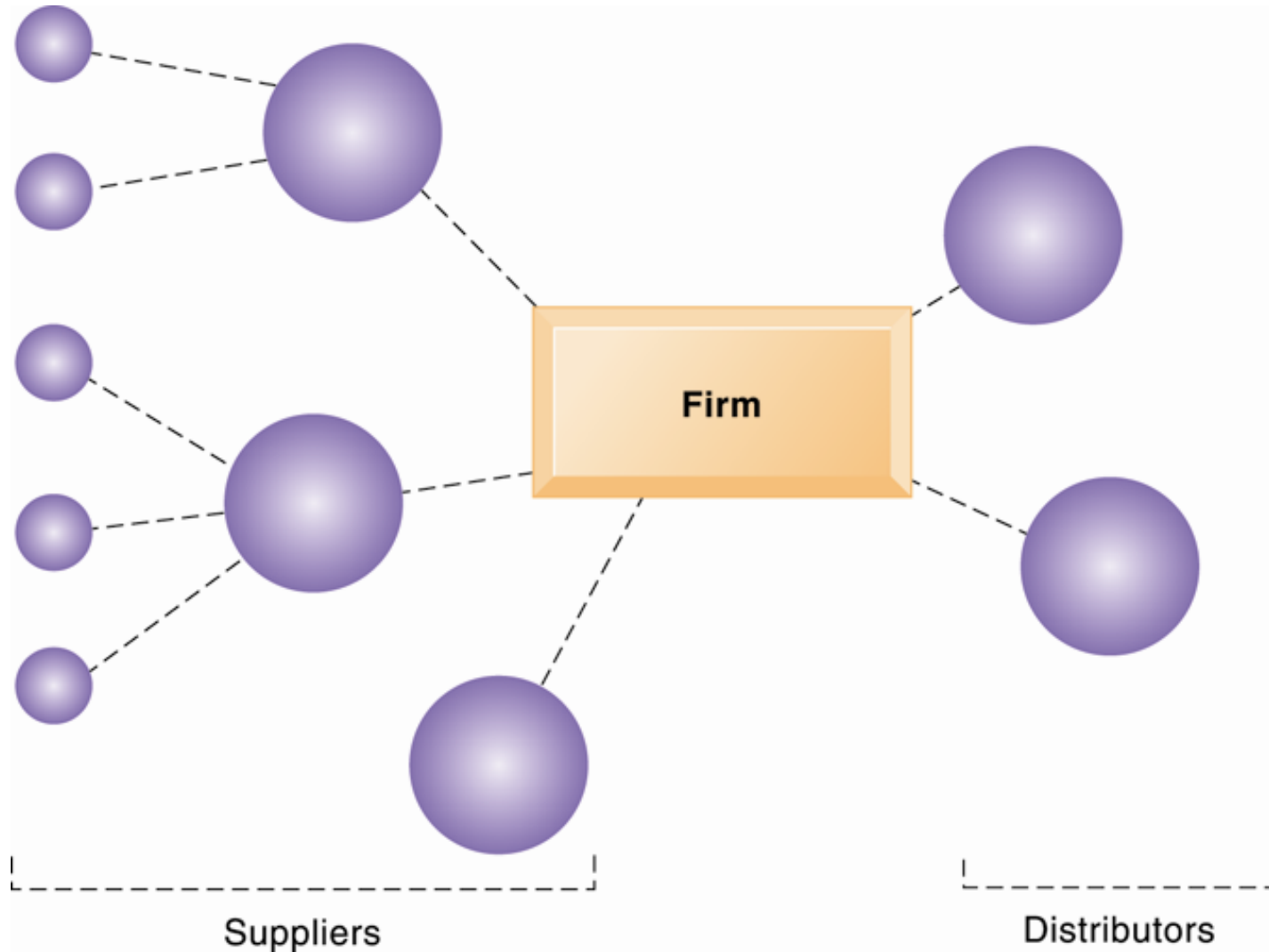
# B2B E-commerce

- U.S. B2B trade in 2012 is \$16 trillion
- U.S. B2B e-commerce in 2012 is \$4.1 trillion
- Procurement requires significant overhead costs, which Internet and networking helps automate
- Variety of Internet-enabled technologies used in B2B
  - Electronic data interchange (EDI)
  - Private industrial networks (private exchanges)
  - Net marketplaces
  - Exchanges

# Electronic Data Interchange (EDI)



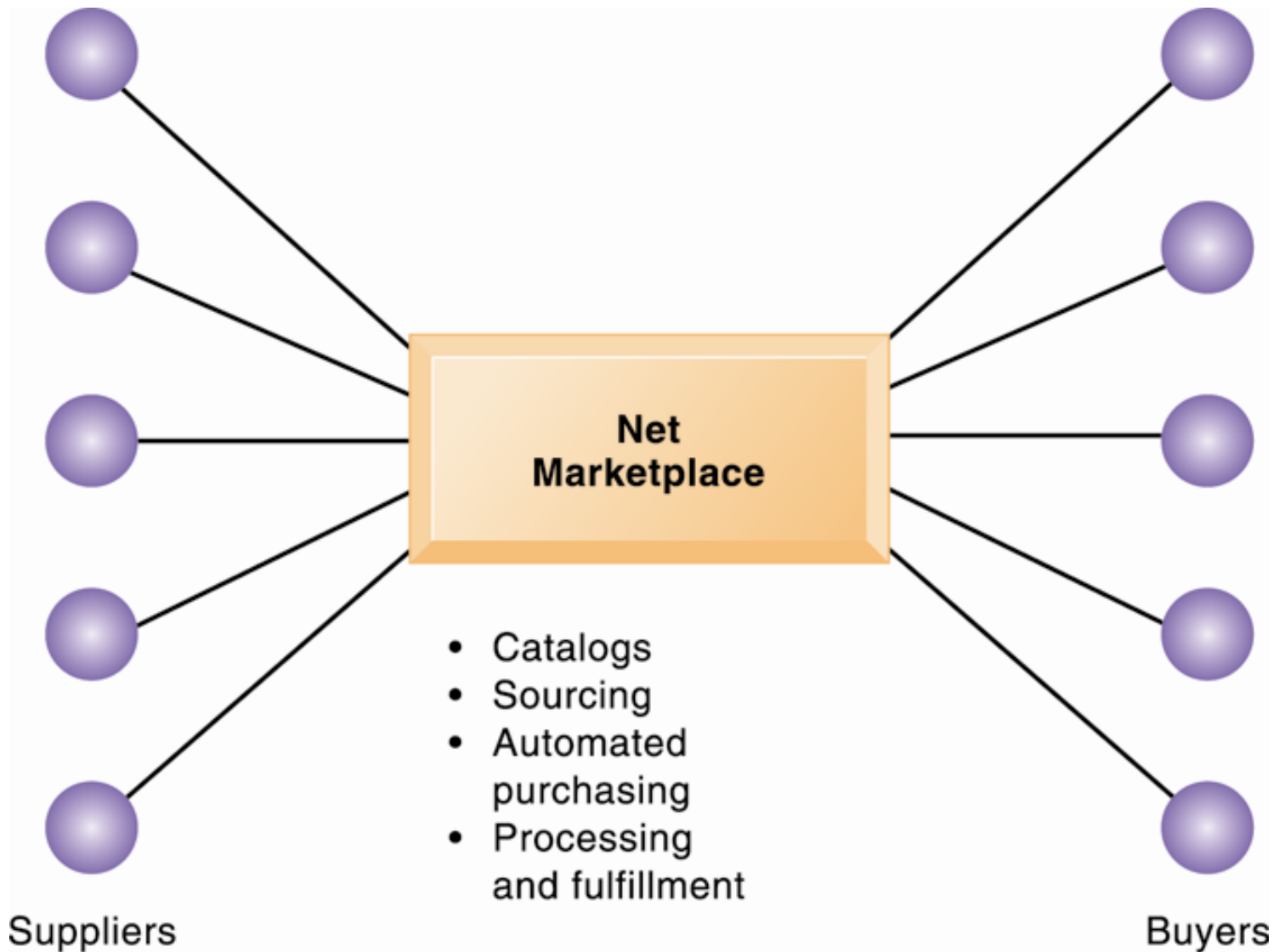
# A Private Industrial Network



# Net Marketplaces (e-hubs)

- Single market for many buyers and sellers
- Industry-owned or owned by independent intermediary
- Generate revenue from transaction fees, other services
- Use prices established through negotiation, auction, RFQs, or fixed prices
- May focus on direct or indirect goods
- May be vertical or horizontal marketplaces

# A Net Marketplace



# Exchanges

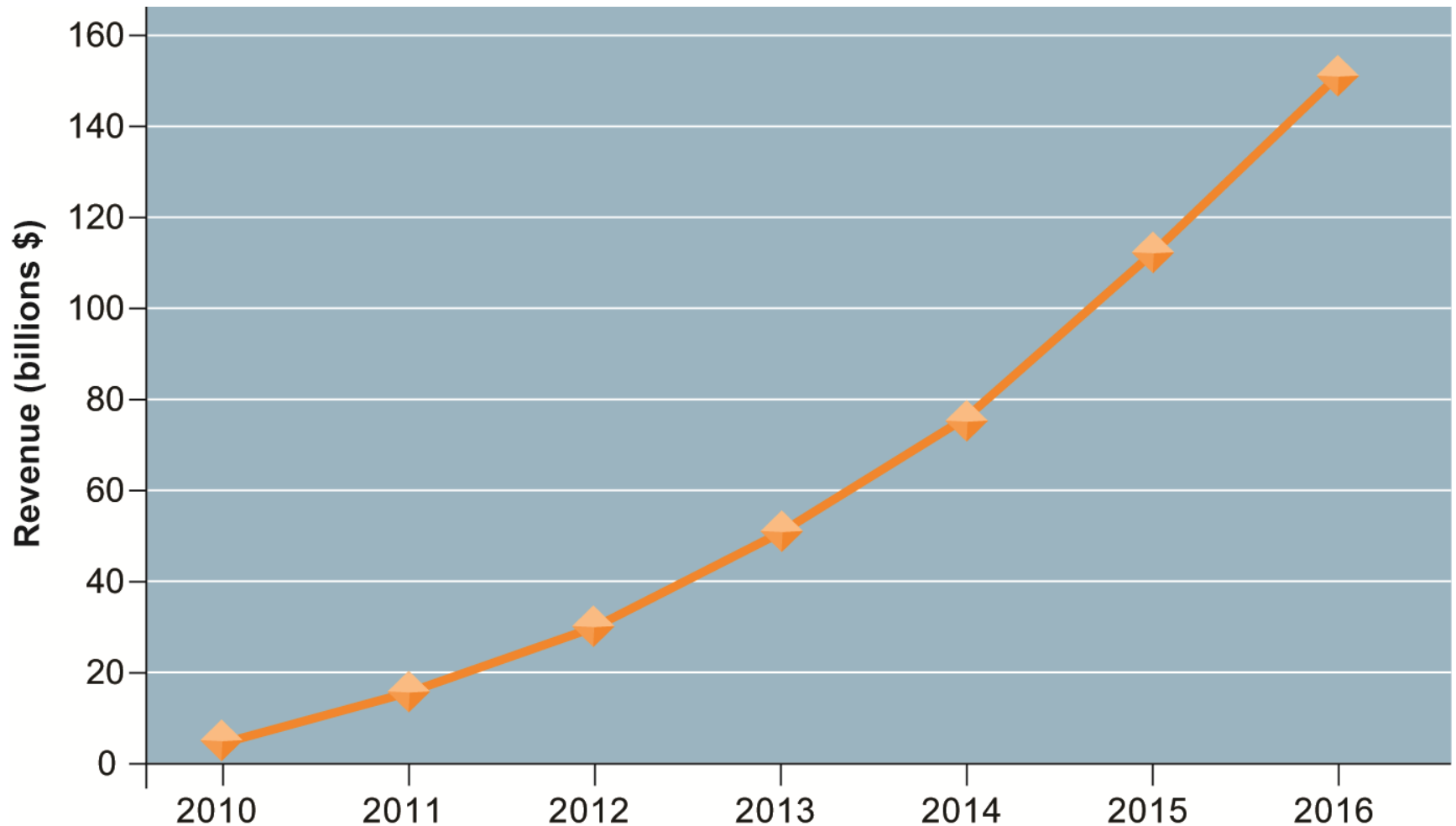
- Independently owned third-party Net marketplaces
- Connect thousands of suppliers and buyers for spot purchasing
- Typically provide vertical markets for direct goods for single industry (food, electronics)
- Proliferated during early years of e-commerce; many have failed
  - Competitive bidding drove prices down and did not offer long-term relationships with buyers or services to make lowering prices worthwhile.

# **The Mobile Digital Platform and Mobile E-commerce**

# M-commerce

- In 2012 is 10% of all e-commerce
- Fastest growing form of e-commerce
  - Some areas growing at 50%
- Four billion mobile phone users worldwide
- Main areas of growth
  - Retail sales at top Mobile 400 (Amazon, eBay, etc.)
  - Sales of digital content (music, TV, etc.)
  - Local search for restaurants, museums, stores

# Consolidated Mobile Commerce Revenues



# Location-based services

- Used by 74% of smartphone owners
- Based on GPS map services
- Types
  - Geosocial services
    - Where friends are
  - Geoadvertising
    - What shops are nearby
  - Geoinformation services
    - Price of house you are passing

# Other Mobile Commerce Services

- Banks, credit card companies provide account management apps
- Mobile display advertising
  - iAd, AdMob, Facebook
- Games and entertainment
  - Downloadable and streamable services
  - Games
  - Video, short films, movies, TV shows
  - Music and ring tones

# Building an E-commerce Web Site

- Pieces of the site-building puzzle
- Assembling a team with the skills required to make decisions about:
  - Technology
  - Site design
  - Social and information policies
  - Hardware, software, and telecommunications infrastructure
- Customer's demands should drive the site's technology and design.

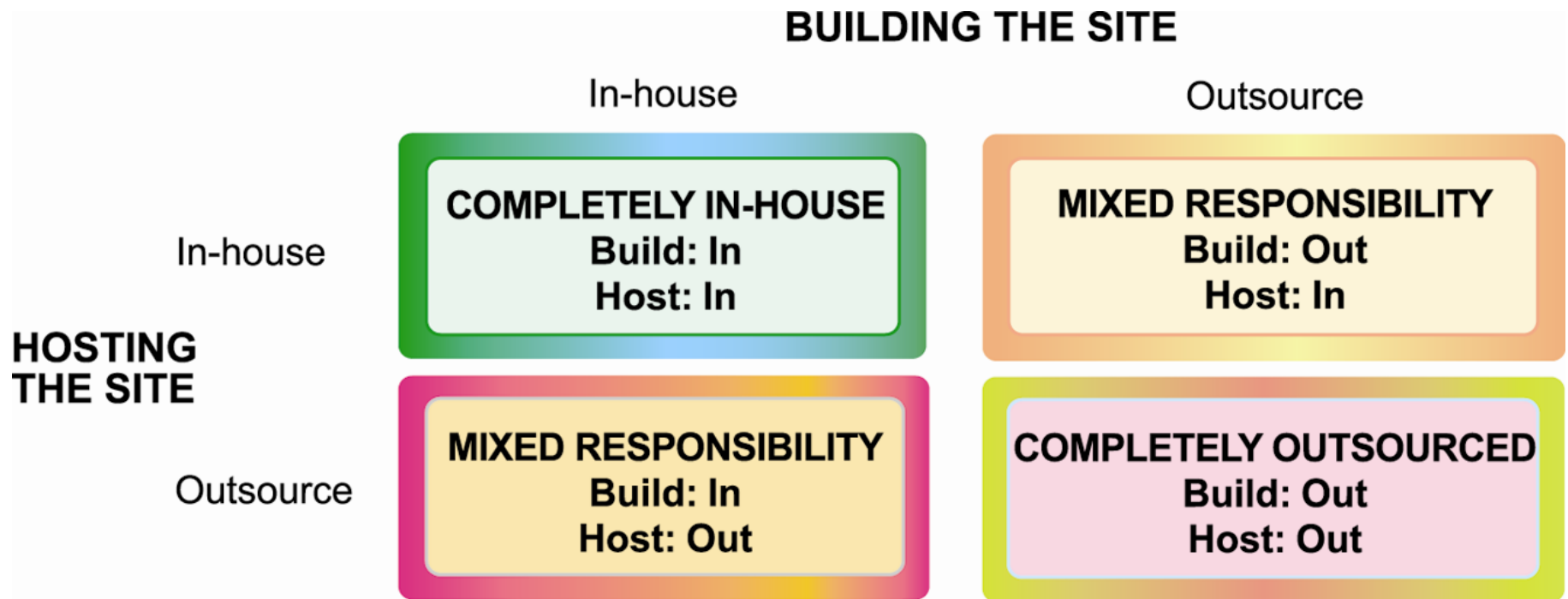
# Building an E-commerce Web Site

- Business objectives
  - The capabilities the site should have
    - Business decisions should drive technology
  - Example: execute a transaction payment
- System functionality
  - Technology needed to achieve objective
  - Example: a shopping cart or other payment system
- Information requirement
  - Specific data and processes needed
  - Example: secure credit card clearing, multiple payment options

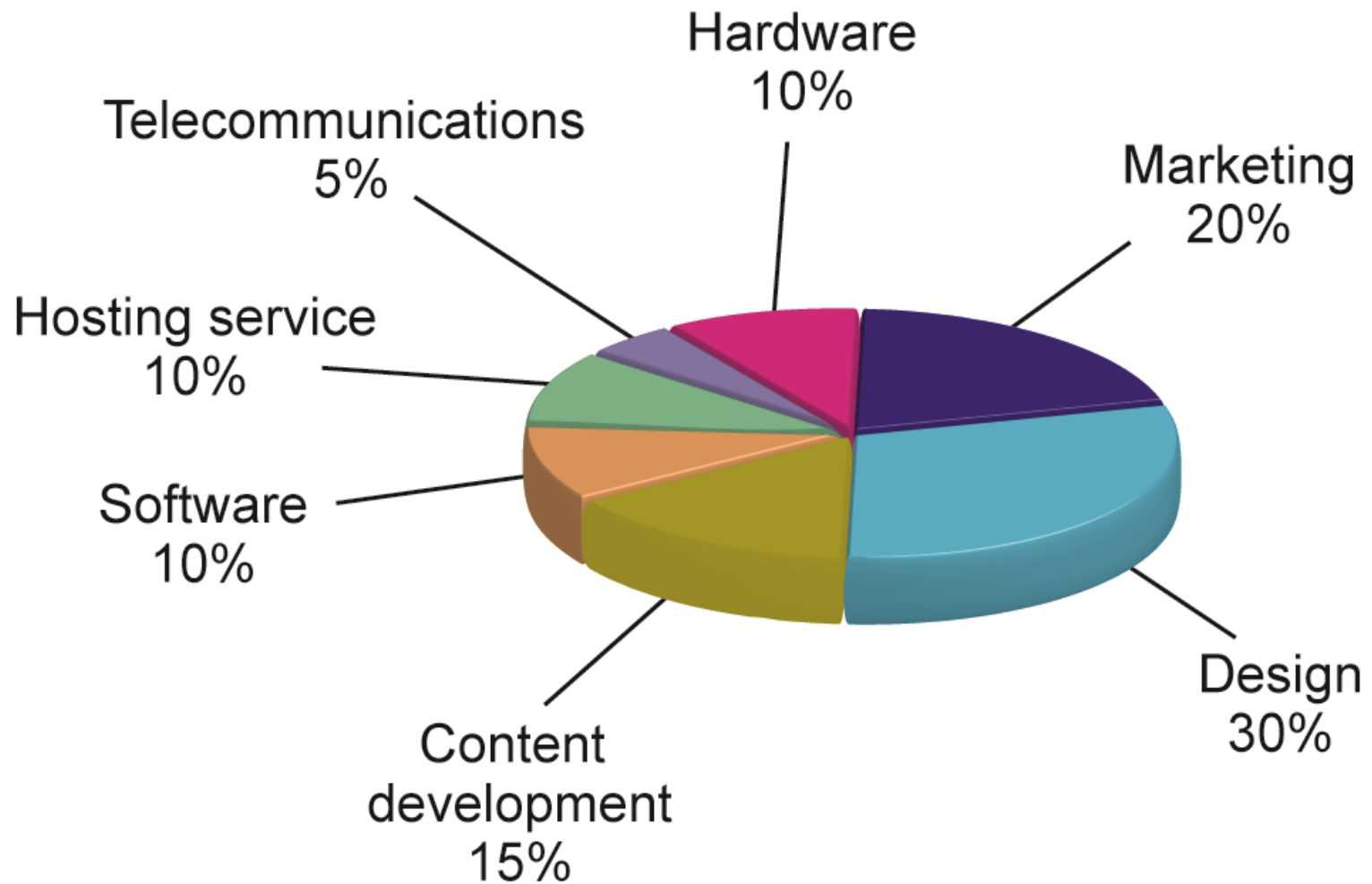
# Building an E-commerce Web Site

- Alternatives in building the Web site:
  - Completely in-house
  - Mixed responsibility
  - Completely outsourced
    - Co-location
- Web site budgets
  - Several thousand to millions per year
  - 50% of budget is system maintenance and content creation

# Choices in Building and Hosting Web Sites



# Components of a Web Site Budget



# 2016/12/27

## Midterm Report (期末報告)

- 請各組組長整理期末報告資料檔案，  
於2016/12/27 (週二) 上午10:00 前，  
完成Email 寄出以下兩個壓縮檔的下載連結，  
給所有組員和老師 (正本to: 老師，副本cc: 所有組員)。
  - 1. 整組各次簡報的 ppt (含整組期末報告目錄 ppt) 壓縮檔
    - (例如：MI4B\_資訊管理專題\_第1組\_期末各次簡報.zip)。
  - 2. 整組各組員的
    - [(1) 個人期末報告.ppt
    - (2) 個人期末書面報告.pdf]
    - 之壓縮檔
    - (例如：MI4B\_資訊管理專題\_第1組\_組員個人期末報告.zip)。

# 資訊管理專題

## (Hot Issues of Information Management)

1. 請同學於資訊管理專題個案討論前  
應詳細研讀個案，並思考個案研究問題。
2. 請同學於上課前複習相關資訊管理相關理論，  
以作為個案分析及擬定管理對策的依據。
3. 請同學於上課前  
先繳交資訊管理專題個案研究問題書面報告。
4. 上課時間地點：  
週二 3,4 (10:10-12:00) B507

# References

- Kenneth C. Laudon & Jane P. Laudon (2014),  
Management Information Systems: Managing the  
Digital Firm, Thirteenth Edition, Pearson.
- Kenneth C. Laudon & Jane P. Laudon 原著，  
游張松 主編，陳文生 翻譯 (2014)，  
資訊管理系統，第13版，滄海