# Case Study for Information Management 資訊管理個案

E-commerce: Digital Markets, Digital Goods
Amazon vs. Walmart
(Chap. 10)

1031CSIM4C10 TLMXB4C (M1824) Tue 2, 3, 4 (9:10-12:00) B425



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# 課程大綱 (Syllabus)

- 週次 (Week) 日期 (Date) 內容 (Subject/Topics)
- 1 103/09/16 Introduction to Case Study for Information Management
- 2 103/09/23 Information Systems in Global Business: UPS (Chap. 1)
- 3 103/09/30 Global E-Business and Collaboration: NTUC Income (Chap. 2)
- 4 103/10/07 Information Systems, Organization, and Strategy: iPad and Apple (Chap. 3)
- 5 103/10/14 IT Infrastructure and Emerging Technologies: Salesforce.com (Chap. 5)
- 6 103/10/21 Foundations of Business Intelligence: Lego (Chap. 6)

# 課程大綱 (Syllabus)

- 週次 (Week) 日期 (Date) 內容 (Subject/Topics)
- 7 103/10/28 Telecommunications, the Internet, and Wireless Technology: Google, Apple, and Microsoft (Chap. 7)
- 8 103/11/04 Securing Information System: Facebook (Chap. 8)
- 9 103/11/11 Midterm Report (期中報告)
- 10 103/11/18 期中考試週
- 11 103/11/25 Enterprise Application: Border States Industries Inc. (BSE) (Chap. 9)
- 12 103/12/02 E-commerce: Amazon vs. Walmart (Chap. 10)

# 課程大綱 (Syllabus)

- 週次 日期 內容(Subject/Topics)
- 13 103/12/09 Knowledge Management: Tata Consulting Services (Chap. 11)
- 14 103/12/16 Enhancing Decision Making: CompStat (Chap. 12)
- 15 103/12/23 Building Information Systems: Electronic Medical Records (Chap. 13)
- 16 103/12/30 Managing Projects: JetBlue and WestJet (Chap. 14)
- 17 104/01/06 Final Report (期末報告)
- 18 104/01/13 期末考試週

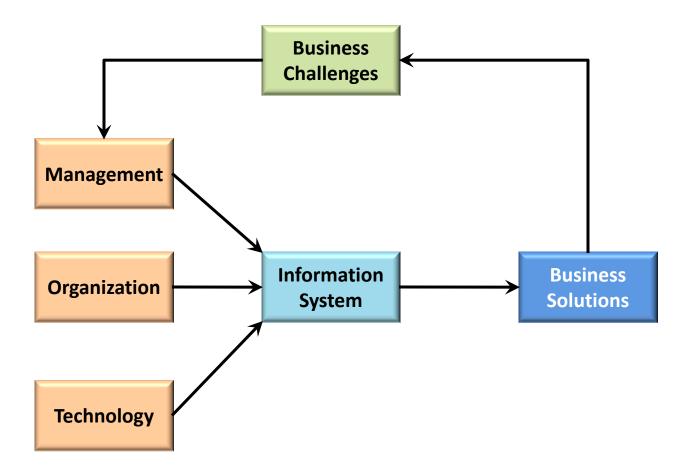
Chap. 10
E-commerce:
Digital Markets,
Digital Goods –
Amazon vs. Walmart

#### **Amazon vs. Walmart:**

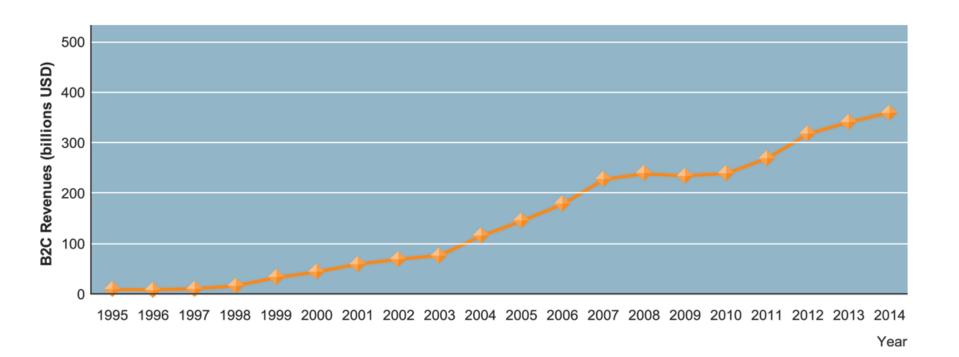
Which Giant Will Dominate E-commerce? (Chap. 10) (pp. 436-438)

- 1. What concepts in the chapter are illustrated in this case?
- 2. Analyze Amazon and Walmart.com using the value chain and competitive forces models.
- 3. What are the management, organization, and technology factors that have contributed to the success of both Wal-Mart and Amazon?
- 4. Compare Wal-Mart's and Amazon's e-commerce business models. Which is stronger? Explain your answer.
- 5. Where would you prefer to make your Internet purchases? Amazon or Walmart.com? Why?

# Overview of Fundamental MIS Concepts



#### 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

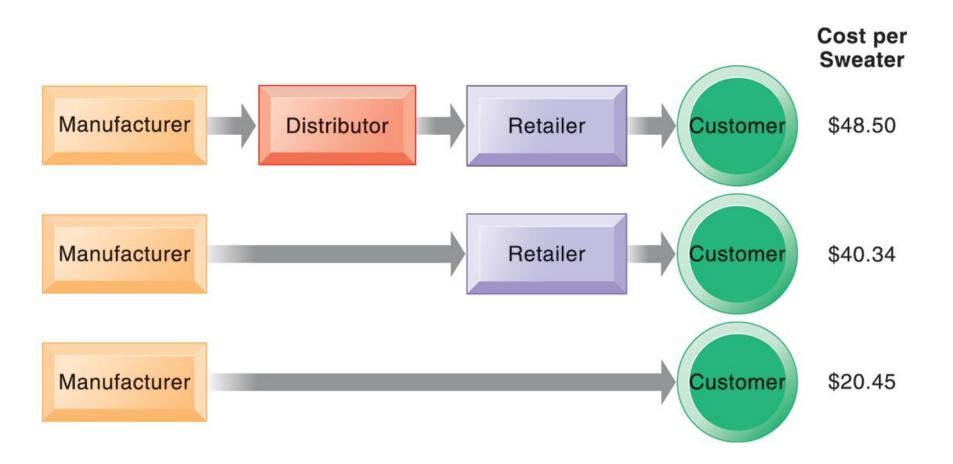
### Key concepts in e-commerce

- Digital markets reduce
  - Information asymmetry
  - Search costs
  - Transaction costs
  - Menu costs
- Digital markets enable
  - Price discrimination
  - Dynamic pricing
  - Disintermediation

### Key concepts in e-commerce

- Digital goods
  - Goods that can be delivered over a digital network
    - E.g. Music tracks, video, software, newspapers, books
  - Cost of producing first unit almost entire cost of product: marginal cost of 2nd unit is about zero
  - 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.)

# THE BENEFITS OF DISINTERMEDIATION TO THE CONSUMER



## **Types of E-commerce**

- 1. Business-to-consumer (B2C)
- 2. Business-to-business (B2B)
- 3. Consumer-to-consumer (C2C)
- 4. Mobile commerce (m-commerce)

# E-commerce Business Models

- 1. Portal
- 2. E-tailer
- 3. Content Provider
- 4. Transaction Broker
- 5. Market Creator
- 6. Service Provider
- 7. Community 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

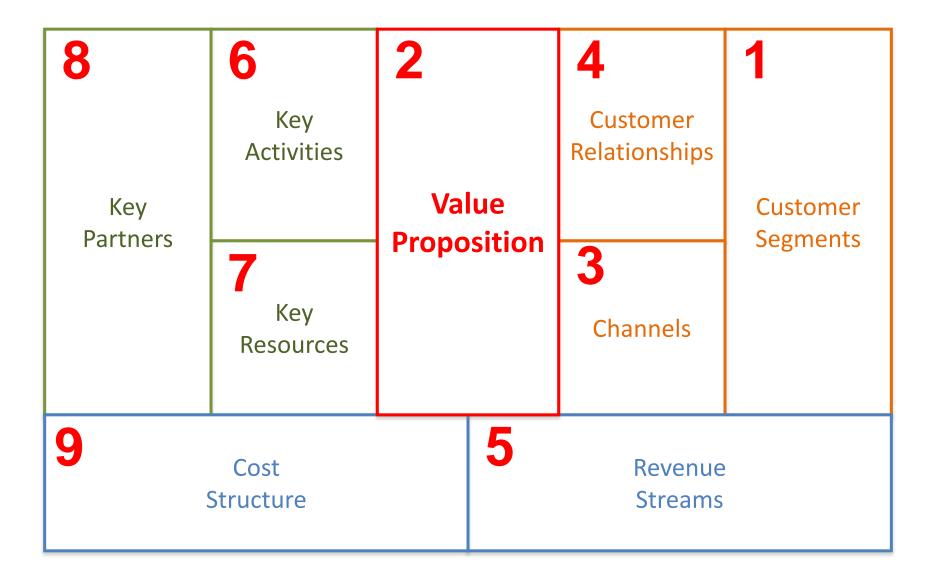
#### **Definition of Business Model**

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 Model**



#### **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)

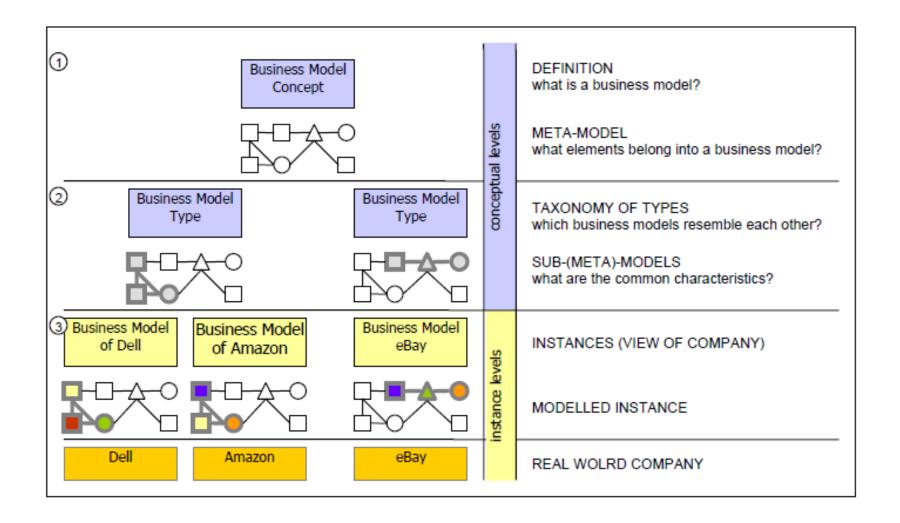
#### **Business Model**

- 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

| Year | In Title | In Abstract | In Keywords | in Full Text |
|------|----------|-------------|-------------|--------------|
| 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

list business describe business model business apply business define & classify model model elements model elements model concept business models components definitions & "shopping list" reference models applications & components as of components building blocks taxonomies & ontologies conceptual tools Rappa [2001] Linder & Cantrell [2000] Afuah & Tucci [2001; Gordijn [2002] Timmers [1998] Magretta [2002] 20031 Osterwalder & Pigneur Amit & Zott [2001] Hamel [2000] [2002] Weill & Vitale [2001]

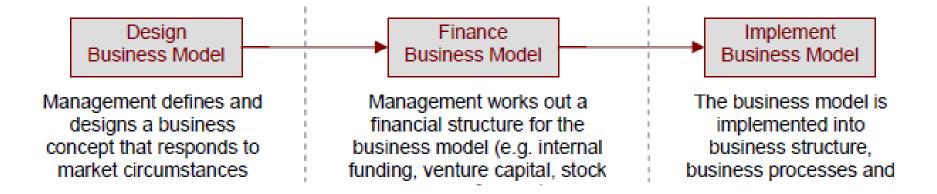
# Business Model vs. Business Process Model

- 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

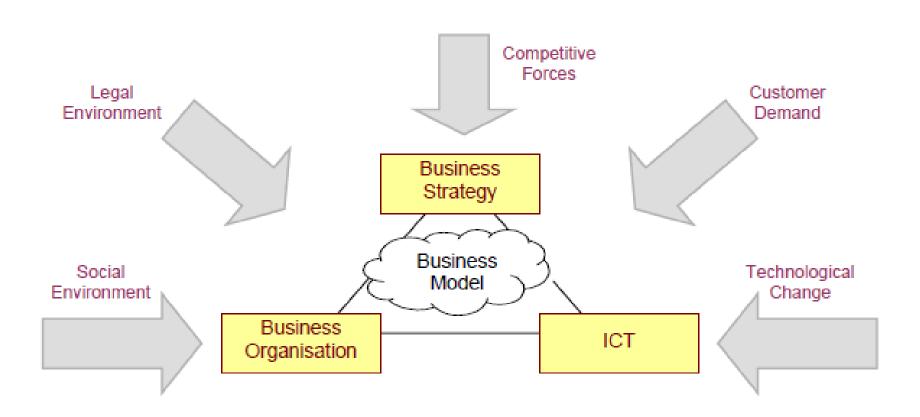
# Business Model vs. Strategy

- 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<br>Building Block | Description                                                                                                                 |  |  |  |
|------------------------------|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------|--|--|--|
| Product                      | Value Proposition                | Gives an overall view of a company's bundle of products<br>and services.                                                    |  |  |  |
| Customer Interface           | Target Customer                  | Describes the segments of customers a company wants to<br>offer value to.                                                   |  |  |  |
|                              | Distribution Channel             | Describes the various means of the company to get in<br>touch with its customers.                                           |  |  |  |
|                              | Relationship                     | Explains the kind of links a company establishes between itself and its different customer segments.                        |  |  |  |
| Infrastructure<br>Management | Value Configuration              | Describes the arrangement of activities and resources.                                                                      |  |  |  |
|                              | Core Competency                  | Outlines the competencies necessary to execute the<br>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<br>employed in the business model.                                           |  |  |  |
|                              | Revenue Model                    | Describes the way a company makes money through a<br>variety of revenue flows.                                              |  |  |  |

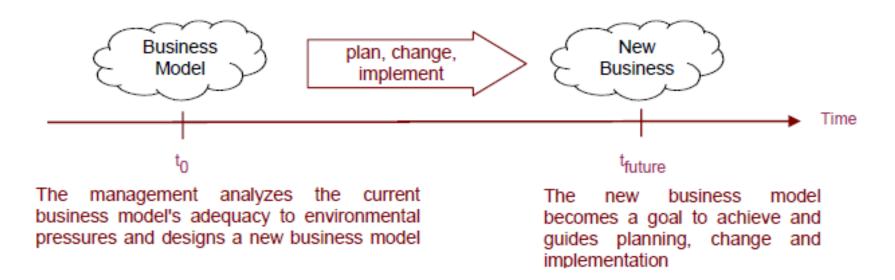
#### **Domains Addressed in Business Models**

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

# Domains Addressed in Business Models (cont.)

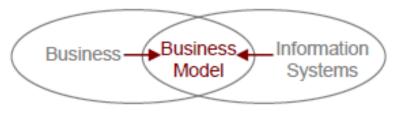
| Business model ontology  | Hamel 2000                                | Mahadevan 2000    | Chesbrough and<br>Rosenbloom<br>2000 | Magretta 2002                                    | Amit and Zott<br>2001       | Applegate and<br>Collura 2001               | Maitland and<br>Van de Kar 2002      |
|--------------------------|--------------------------------------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

# Planning, Changing and Implementing Business Models



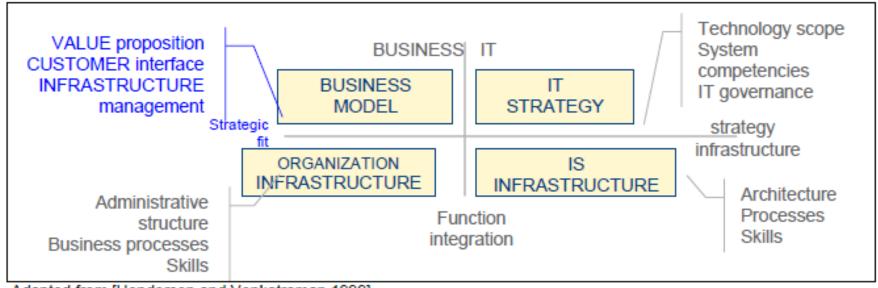
# Business Strategy and Information Systems Alignment

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**

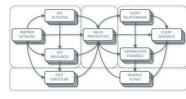


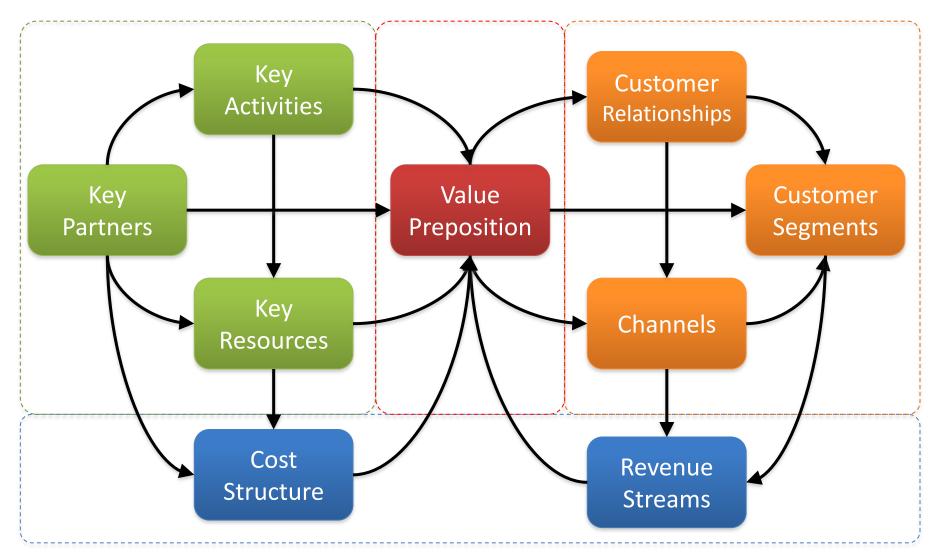
Adapted from [Henderson and Venkatraman 1999]

#### **Definition of Business Model**

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

## **Business Model Canvas**



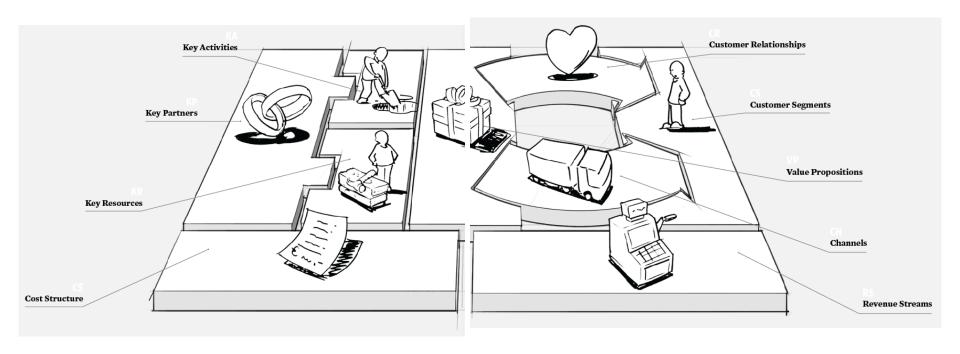


Source: <a href="http://nonlinearthinking.typepad.com/nonlinear\_thinking/2008/07/the-business-model-canvas.html">https://nonlinearthinking.typepad.com/nonlinear\_thinking/2008/07/the-business-model-canvas.html</a>
<a href="https://www.youtube.com/watch?v=QoAOzMTLP5s">https://www.youtube.com/watch?v=QoAOzMTLP5s</a>

## The 9 Building Blocks of Business Model

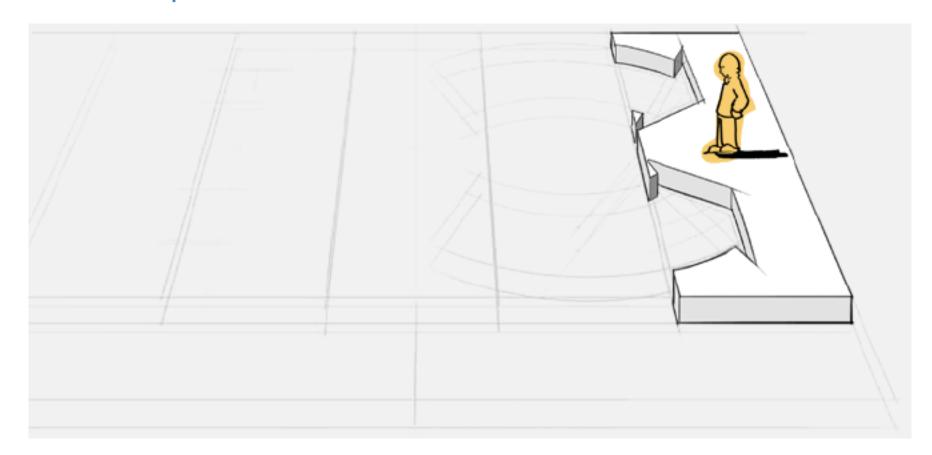
| Key<br>Partners   | <b>F</b> | Key<br>Activities | <u>L</u> | Value<br>Proposition |                    | Customer<br>Relationships | $\bigcirc$ | Customer<br>Segments |  |
|-------------------|----------|-------------------|----------|----------------------|--------------------|---------------------------|------------|----------------------|--|
| 8                 |          | 6                 |          | 2                    |                    | 4                         |            | 1                    |  |
|                   |          |                   |          |                      | •                  | _                         |            | •                    |  |
|                   |          | Key<br>Resources  |          |                      |                    | Channels                  |            |                      |  |
|                   |          | 7                 |          |                      |                    | 3                         |            |                      |  |
|                   |          |                   |          |                      |                    |                           |            |                      |  |
| Cost<br>Structure |          | 9                 |          |                      | Revenue<br>Streams | 5                         |            |                      |  |
|                   |          |                   |          |                      |                    |                           |            |                      |  |

## The 9 Building Blocks of Business Model



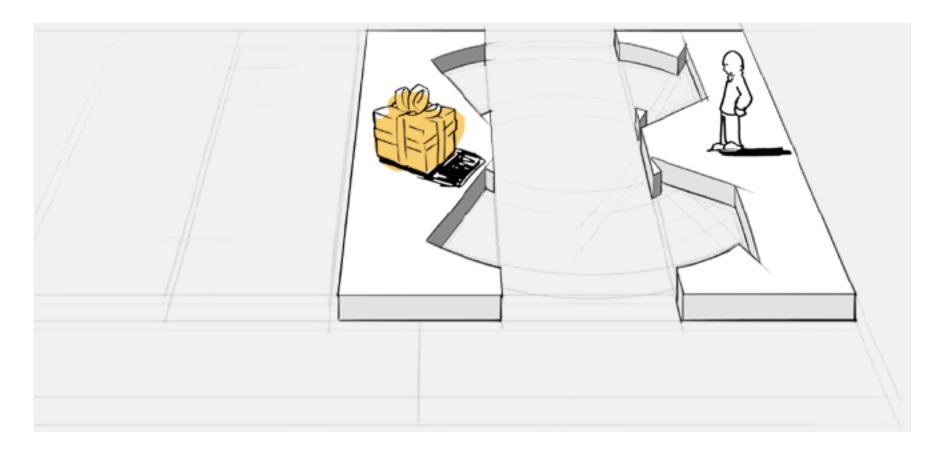
## 1. Customer Segments

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



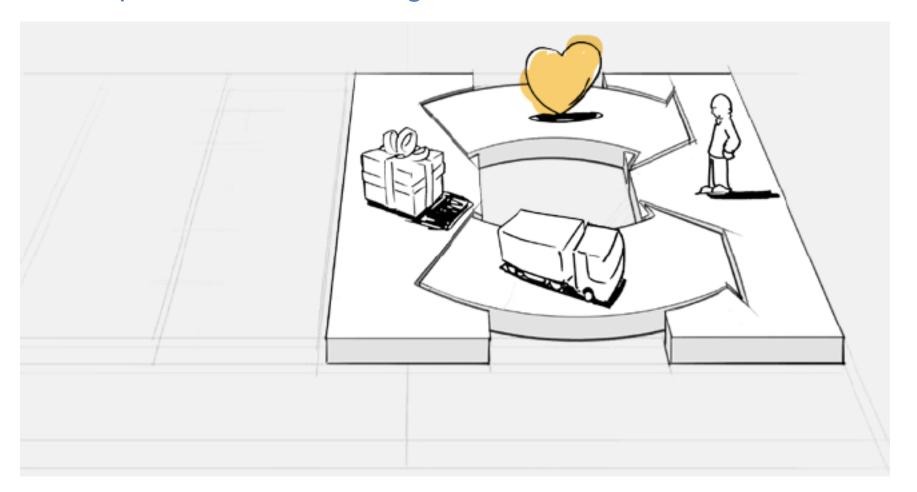
### 3. Channels

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



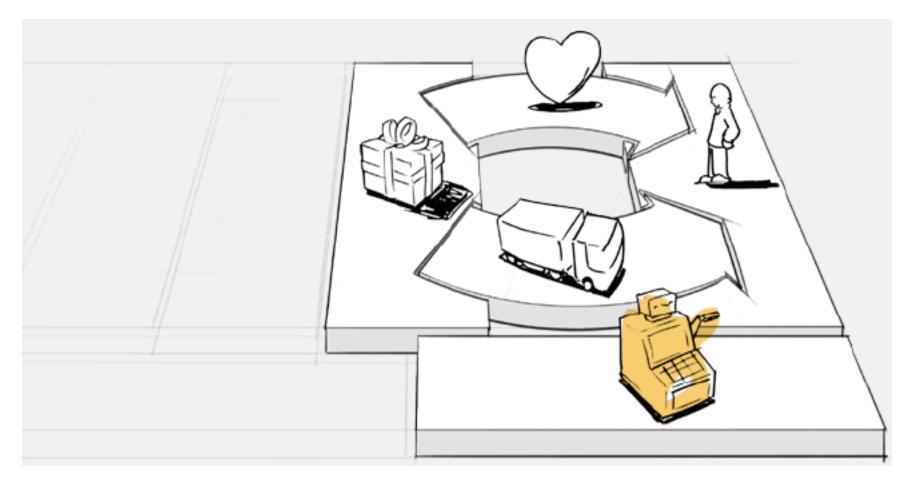
## 4. Customer Relationships

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



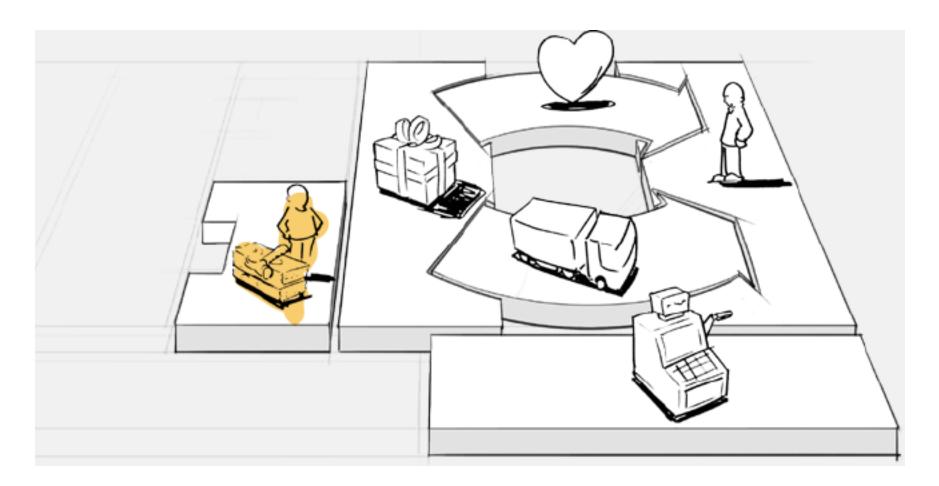
### **5.** Revenue Streams

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



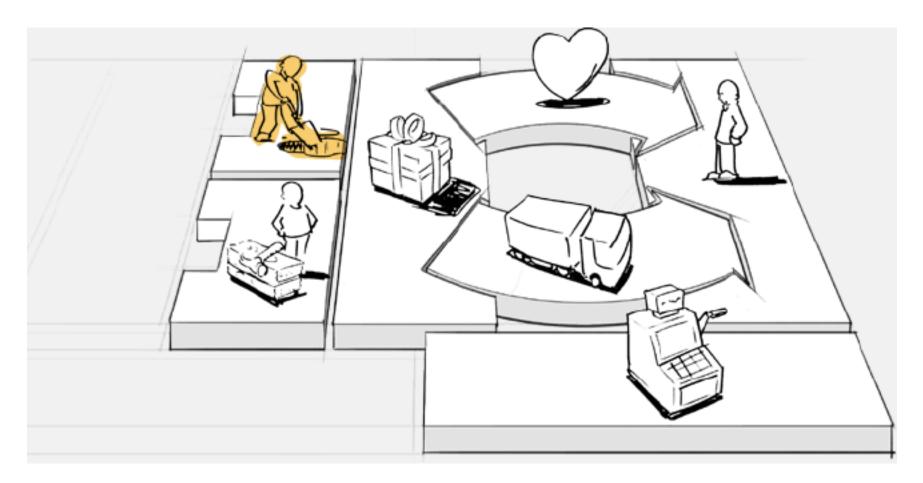
## 6. Key Resources

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



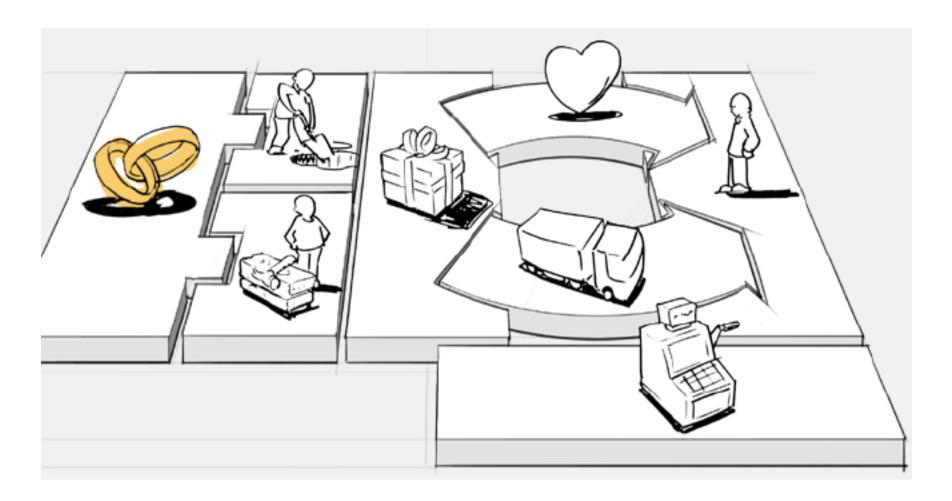
## 7. Key Activities

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



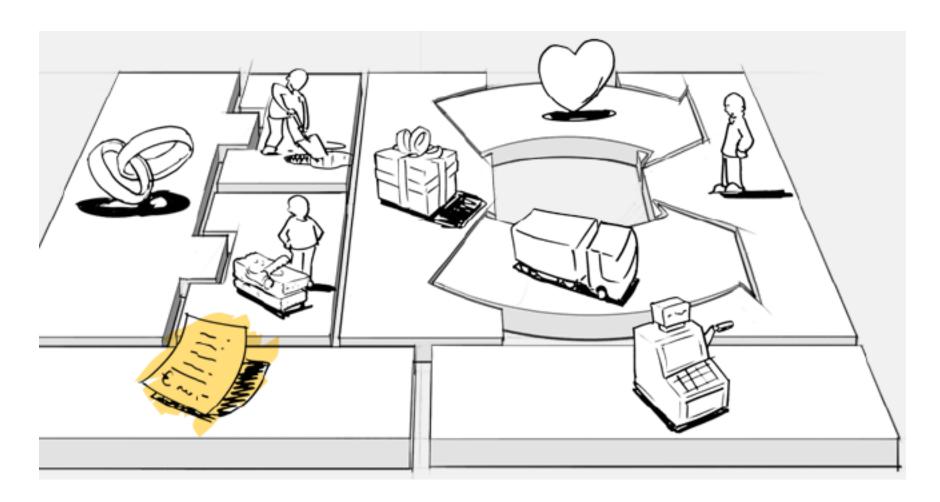
## 8. Key Partnerships

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.

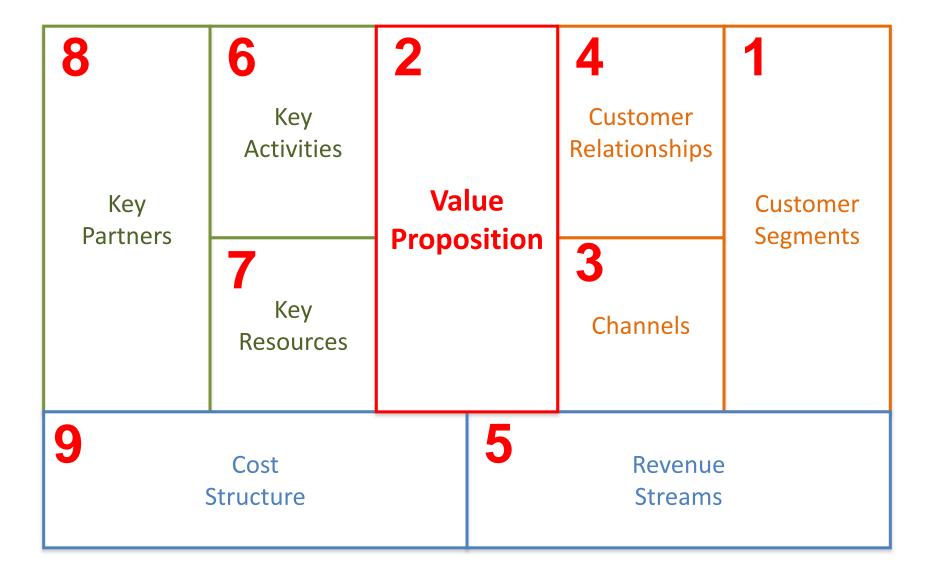
#### 8. Key Partnerships

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

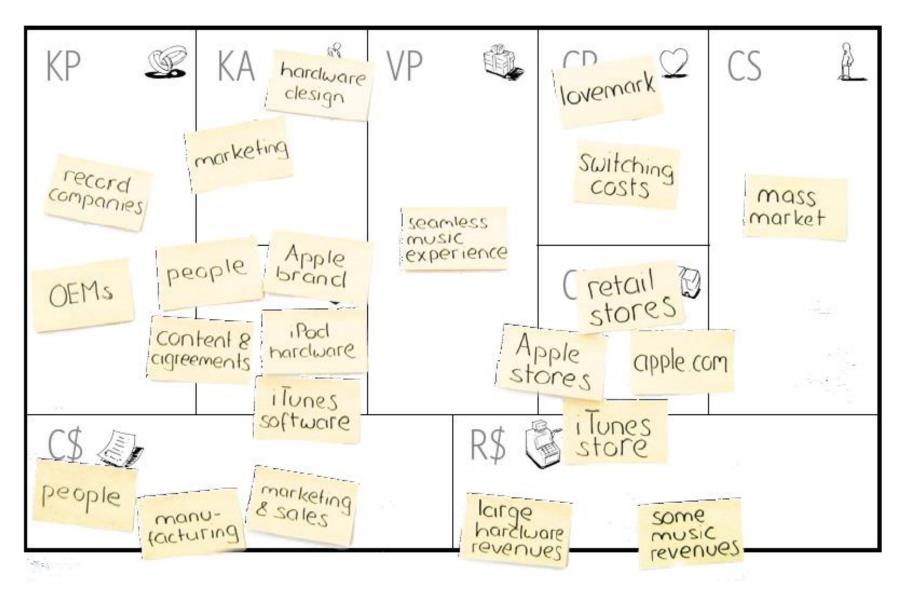
#### 9. Cost Structure

The business model elements result in the cost structure.

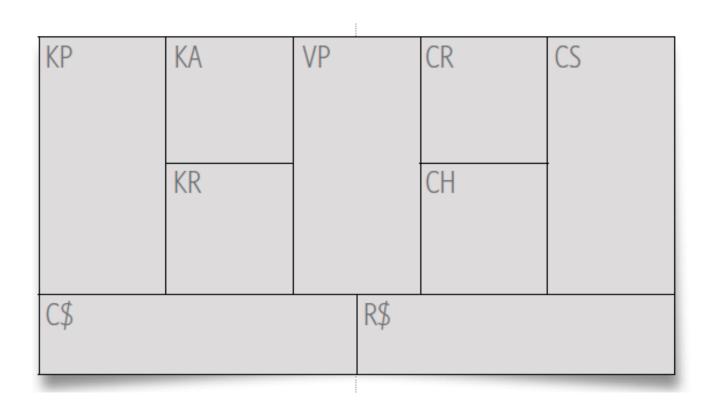
### **Business Model**



### **Business Model Generation**

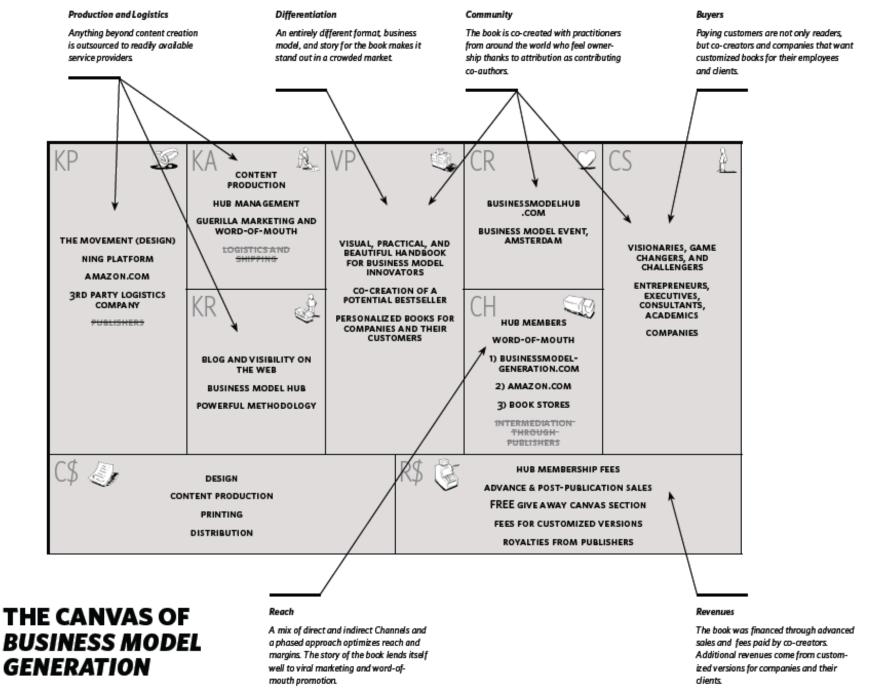


### **Business Model Generation**



efficiency

right canvas value



## Web 2.0: Social Networking and the Wisdom of Crowds

- Most popular Web 2.0 service: social networking
  - Social networking sites sell banner ads, user preference information, and music, videos and e-books
- Social shopping sites
  - Swap shopping ideas with friends (Kaboodle, ThisNext)
- 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)

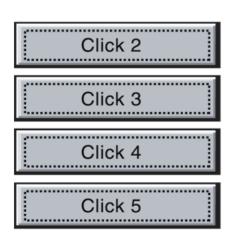
## **E-commerce marketing**

- Internet provides marketers with new ways of identifying and communicating with customers
- Long tail marketing: Ability to reach a large audience inexpensively
- Behavioral targeting: Tracking online behavior of individuals on thousands of Web sites
- Advertising formats include search engine marketing, display ads, rich media, and e-mail

### WEB SITE VISITOR TRACKING



The shopper clicks on the home page. The store can tell that the shopper arrived from the Yahoo! portal at 2:30 PM (which might help determine staffing for customer service centers) and how long she lingered on the home page (which might indicate trouble navigating the site).



The shopper clicks on blouses, clicks to select a woman's white blouse, then clicks to view the same item in pink. The shopper clicks to select this item in a size 10 in pink and clicks to place it in her shopping cart. This information can help the store determine which sizes and colors are most popular.

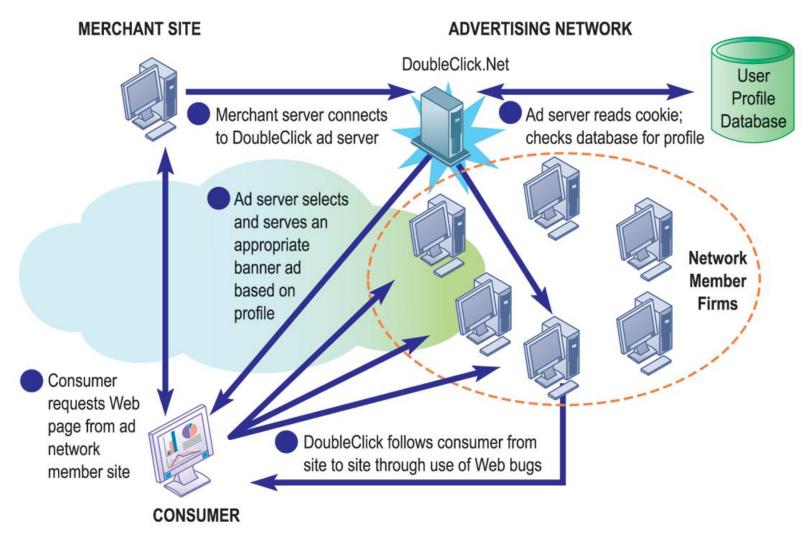


From the shopping cart page, the shopper clicks to close the browser to leave the Web site without purchasing the blouse. This action could indicate the shopper changed her mind or that she had a problem with the Web site's checkout and payment process. Such behavior might signal that the Web site was not well designed.

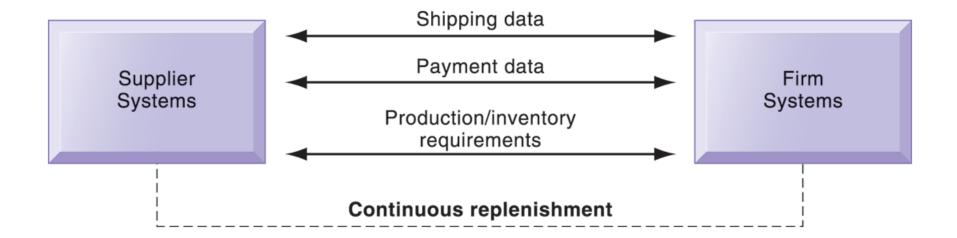
### WEB SITE PERSONALIZATION



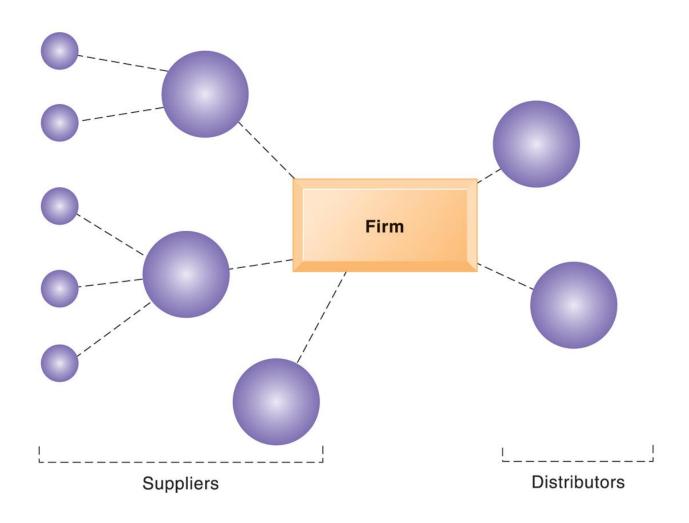
## HOW AN ADVERTISING NETWORK SUCH AS DOUBLECLICK WORKS



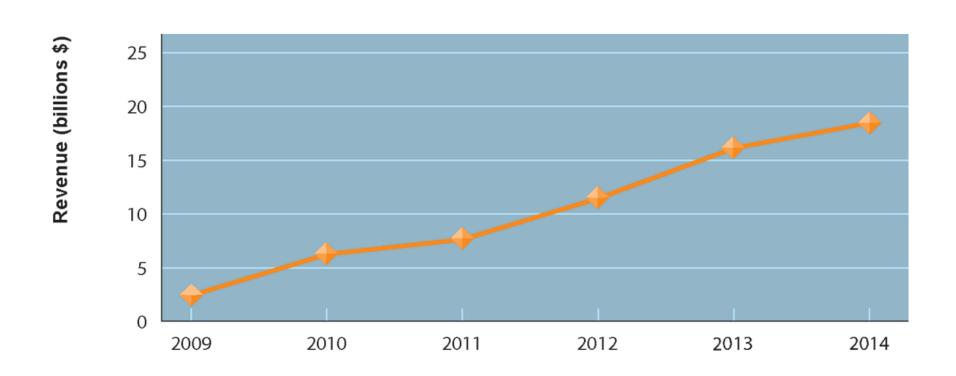
## ELECTRONIC DATA INTERCHANGE (EDI)



### A PRIVATE INDUSTRIAL NETWORK



## CONSOLIDATED MOBILE COMMERCE REVENUES



## CHOICES IN BUILDING AND HOSTING WEB SITES

#### **BUILDING THE SITE**

In-house

**COMPLETELY IN-HOUSE** 

Build: In Host: In

MIXED RESPONSIBILITY

Build: In Host: Out Outsource

MIXED RESPONSIBILITY

Build: Out Host: In

**COMPLETELY OUTSOURCED** 

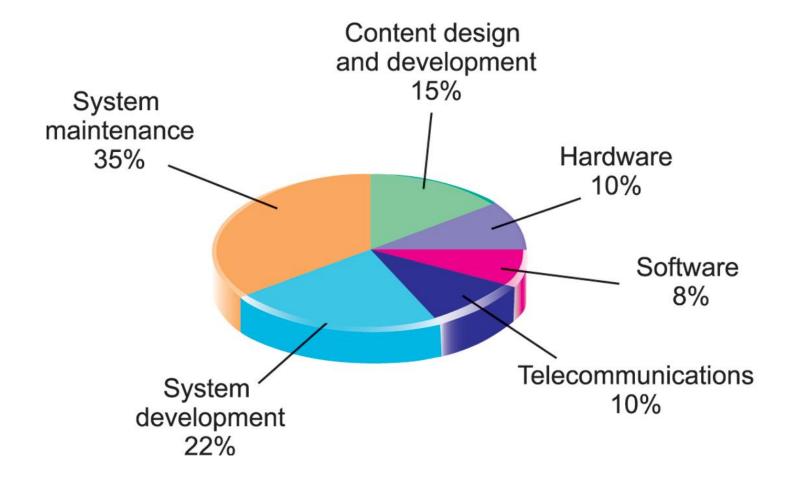
**Build: Out Host: Out** 

HOSTING THE SITE

Outsource

In-house

## COMPONENTS OF A WEB SITE BUDGET



# Case Study: Tata Consulting Services Knowledge Management and Collaboration at Tata Consulting Services (Chap. 11)

- 1. Analyze the knowledge management efforts at Tata Consulting Services (TCS) using the knowledge management value chain model. Which tools or activities were used for managing tacit knowledge and which ones are used for explicit knowledge?
- 2. Describe the growth of knowledge management systems at TCS? How have these systems helped TCS in its business?
- 3. Describe the collaboration tools used at TCS? What benefits did TCS reap from these tools?
- 4. How did Web 2.0 tools help TCS manage knowledge and collaboration among its employees?
- 5. How do you think KM tools have changed some key operational processes at TCS, such as bidding for new projects, project development and implementation, customer service, and so on?

## 資訊管理個案 (Case Study for Information Management)

- 1. 請同學於資訊管理個案討論前 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 先繳交個案研究問題書面報告。

### References

- Kenneth C. Laudon & Jane P. Laudon (2012),
   Management Information Systems: Managing the Digital Firm, Twelfth Edition, Pearson.
- 周宣光 譯 (2011), 資訊管理系統—管理數位化公司, 第12版,東華書局