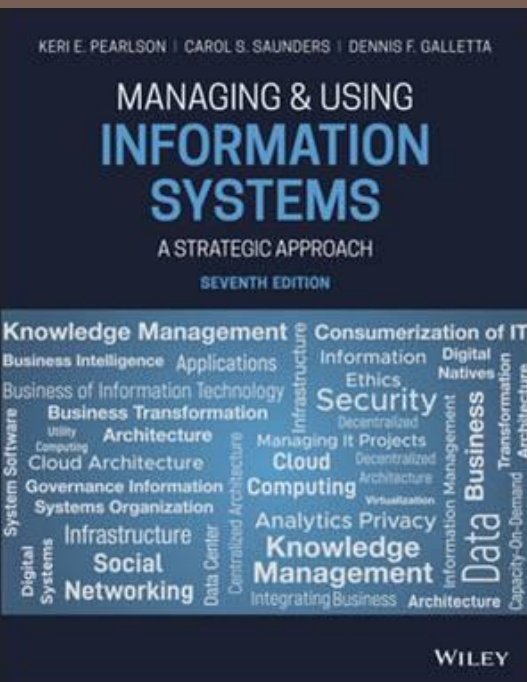


# CHAPTER 10

## INFORMATION SYSTEMS SOURCING



Managing & Using Information Systems: A Strategic Approach (7<sup>th</sup> Edition),  
Pearlson, Saunders, & Galletta

# Chapter Introduction

2

- This chapter is organized around decisions in the **Sourcing Decision Cycle**.
- The first question regarding information systems (IS) in the cycle relates to the decision to **make (insource)** or **buy (outsource)** them.
- This chapter's focus is on issues related to outsourcing whereas issues related to insourcing are discussed in other chapters of this book.
- Discussed are the critical decisions in the **Sourcing Decision Cycle**:
  - **How** and **where** (cloud computing, onshoring, offshoring).

# Chapter Introduction

3

- When the choice is offshoring, the next decision is **where abroad**:
  - Farshoring
  - Nearshoring
  - Captive Centers
- Explored next in this chapter is the final decision in the cycle, **keep as is** or **change** in which case the current arrangements are assessed and modifications are made to the outsourcing arrangement, a new outsourcing provider is selected, or the operations and services are backsourced, or brought back in house.
- **Risks** and **strategies** to mitigate risks are discussed at each stage of the cycle.

# CASE: Kellwood

4

- After 13 years, Kellwood, an American apparel maker, ended its soups-to-nuts **(complete, all-inclusive)** IS outsourcing arrangement with EDS.
- The primary focus of the original outsourcing contract was to **integrate** 12 individually acquired units with different systems **into** one system.
- Kellwood had been satisfied enough with EDS's performance to renegotiate the contract in 2002 and 2008, even though at each renegotiation point, Kellwood had considered **bringing** the IS operations **back** in house, or backsourcing.



# CASE: Kellwood

5

- The 2008 contract iteration resulted in a more flexible \$105 million contract that EDS estimated would save Kellwood \$2 million in the first year and \$9 million over the remaining contract years.
  - But the situation at Kellwood had changed drastically.
  - In 2008, Kellwood had been purchased by Sun Capital Partners and **taken private**.
- 
- **Being "taken private"** (or a take-private transaction) means a publicly traded company is acquired by a private investor or group, its shares are bought back, and it is delisted from stock exchanges.
  - It essentially becomes a privately held company.



# CASE: Kellwood

6

- The chief operating officer (COO), who was facing a mountain of debt and possibly bankruptcy, wanted to **consolidate** and **bring** the operations **back** in house to give some order (**정리/정돈**) to the current situation and reduce costs.
- Kellwood was suffering from a lack of IS standardization as a result of its many acquisitions.
- The chief information officer (CIO) recognized the importance of IS standardization and costs, but she was concerned that the **transition from** outsourcing **to** insourcing would cause serious disruption to IS service levels and project deadlines if it went poorly.

# CASE: Kellwood

7

- Kellwood hired a third-party consultant to help it explore the issues and decided that backsourcing would save money and respond to changes caused by both the market and internal forces.
- Kellwood decided to backsource and started the process in late 2009.
- It carefully planned for the transition, and the implementation went smoothly.



# CASE: Kellwood

8

- By performing streamlined operations in house, it was able to report an impressive \$3.6 million savings, or about 17% of annual IS expenses after the first year.
- Then in 2016, Kellwood was purchased by new owners who decided to close the data center and **move** the insourced operations **to** the cloud.
- The cloud provider **enables** Kellwood high scalability -- **to** be able to adjust their IT costs upward and downward according to their monthly needs.





# CASE: Kellwood

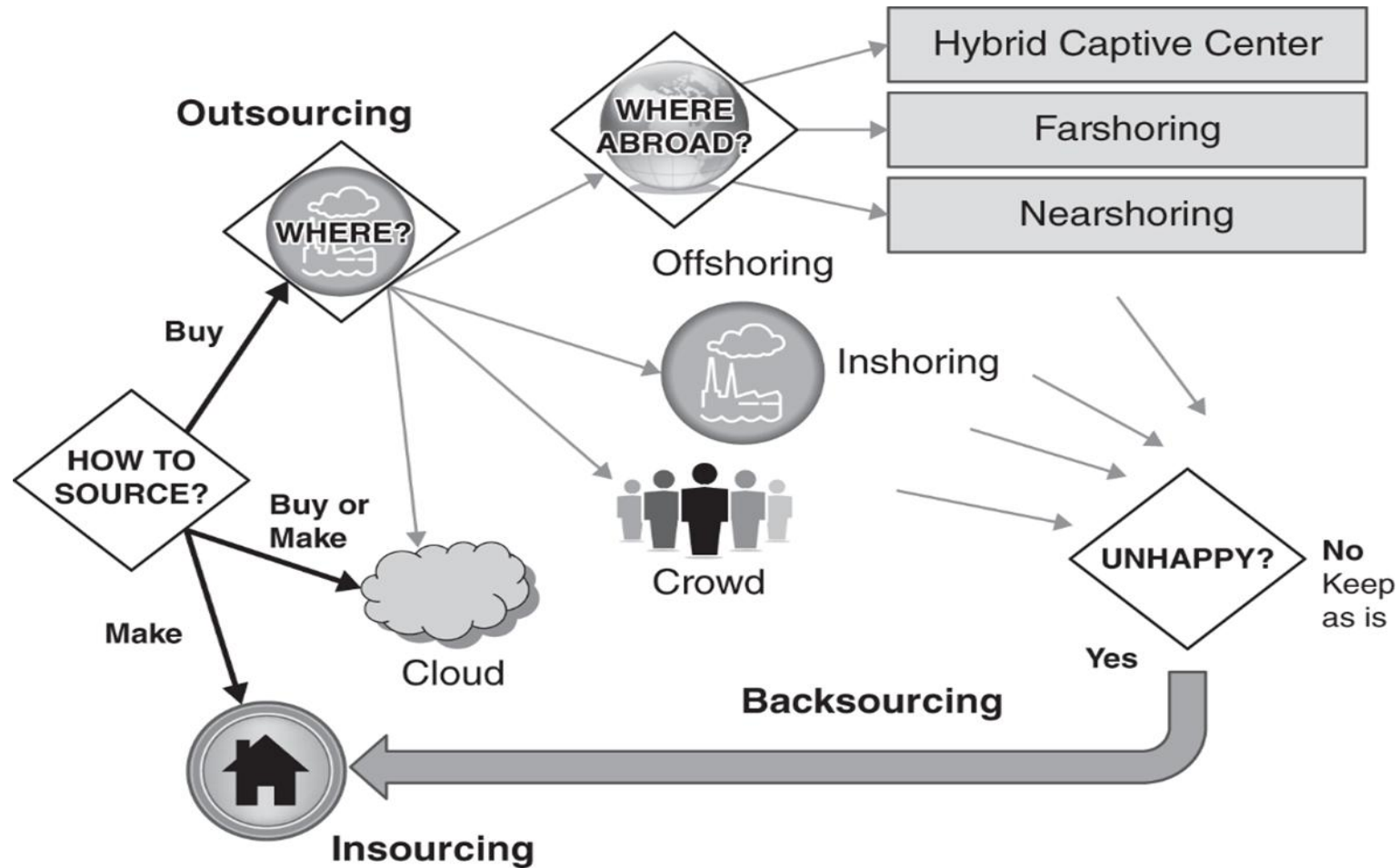
9

- As the clothing industry has **high seasonal fluctuation**, that flexibility can increase management's ability to control spending.
- Kellwood's decisions to outsource IS operations, then to bring them back in-house, and finally **move** them **to** the cloud were based on a series of factors.
- These factors, similar to those used by many companies in their sourcing decisions, are discussed later in this chapter.



# Sourcing Decision Cycle Framework

10



Note: Insourcing can include captive centers or the cloud

Figure 10.1 Sourcing Decision Cycle Framework

# Sourcing Decision Cycle Framework

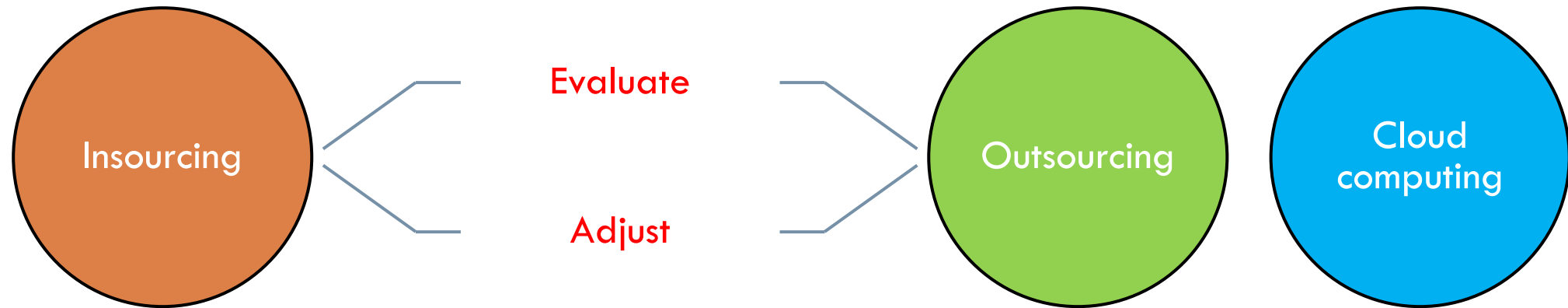
11

- The first step is the **make** or **buy** decision.
  - If the “**buy**” option is selected, the company outsources.
  - The company must decide on “**how**” and “**where**.”
  - Is the outsourcing provider in its own country, **offshore**, or in the **cloud**?
  - If the company decides to offshore, it must decide whether to offshore **nearby** or **far away**.

# Sourcing Decision Cycle Framework

12

- Periodically must **evaluate** the arrangement and **adjust** it.
- Continual evaluation is needed to determine if the arrangement is satisfactory or not (**unhappy with the arrangement**) — either for outsourcing or insourcing.



# Starting the Cycle: The Make-or-Buy Sourcing Decision

13

|          | Insourcing                                                                                                                                                                                | Outsourcing                                                                                                                                                                   |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Domestic | <ul style="list-style-type: none"><li>• <b>Domestic in-house production</b></li><li>• Company produces its products domestically without any outside contracts.</li></ul>                 | <ul style="list-style-type: none"><li>• <b>Domestic outsourcing</b></li><li>• Company uses services supplied by another domestic-based company.</li></ul>                     |
| Offshore | <ul style="list-style-type: none"><li>• <b>Offshore in-house sourcing</b></li><li>• Company uses services supplied by its own foreign-based affiliate (<b>계열</b> / subsidiary).</li></ul> | <ul style="list-style-type: none"><li>• <b>Offshore outsourcing</b></li><li>• Company uses services supplied by an unaffiliated (<b>비계열</b>) foreign-based company.</li></ul> |

# Insourcing

14

- Insourcing is when a firm provides IS services or develops IS in its own in-house IS organization.
- This is the “**make**” decision.
- Drivers that favor this decision:
  - Keeping core competencies in-house.
  - IS service or product requires considerable security or confidentiality.
  - Time available in-house to complete IS projects.
  - In-house IT personnel.

# Insourcing

15

- Challenges to **insourcing** (Figure 10.2):
  - Getting needed IT resources from management.
  - Finding a reliable, competent outsource provider.

| Make or Buy Questions                                                                                                          | Suggests Insourcing | Suggests Outsourcing | Examples of Associated Risk in Worst-case Scenarios                                                                |
|--------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------|--------------------------------------------------------------------------------------------------------------------|
| Does it involve a core competency?                                                                                             | Yes                 | No                   | <i>If outsourced:</i> Loss of control over strategic initiatives; loss of strategic focus or competitive advantage |
| Does it involve confidential or sensitive IS services or software development?                                                 | Yes                 | No                   | <i>If outsourced:</i> Competitive secrets leaked; competitive advantage lost                                       |
| Is there enough time available to complete software development projects in-house?                                             | Yes                 | No                   | <i>If insourced:</i> Project not completed on time                                                                 |
| Do the in-house IS professionals have adequate training, experience, or skills to provide the service or develop the software? | Yes                 | No                   | <i>If outsourced:</i> Technological innovations limited to what provider offers; overreliance on provider's Skills |

Figure 10.2.1 Make or buy? Questions and Risks



| Make or Buy Questions                                                                                                        | Suggests Insourcing | Suggests Outsourcing | Examples of Associated Risk in Worst-case Scenarios                                                                            |
|------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Are there reliable outsourcing providers who are likely to stay in business for the duration of the contract?                | Yes                 | No                   | <i>If outsourced:</i> Project not completed or, if completed, project over budget and late when another provider takes it over |
| Is there an outsourcing provider that has a culture and practices that are compatible with the client?                       | No                  | Yes                  | <i>If outsourced:</i> Conflict between client and provider personnel                                                           |
| Does the provider have economies of scale that make it cheaper to provide the service or develop the software than in-house? | Most likely no      | Most likely yes      | <i>If outsourced:</i> Excessive costs of project or operations because of the way the contract is written                      |
| Does it offer a better ability to handle peaks?                                                                              | Most likely no      | Most likely yes      | <i>If insourced:</i> Loss of business                                                                                          |
| Does it involve consolidating data centers?                                                                                  | Most likely no      | Most likely yes      | <i>If insourced:</i> Inefficient operations                                                                                    |

Figure 10.2.2 Make or buy? Questions and Risks

# Insourcing: Captive Center

18

- A new variation of insourcing.
- Alternative to offshoring or nearshoring.
- A captive center is **an overseas subsidiary** that is created to serve its main "client," the parent company, but it may serve other clients as well.
- Firms have set up such subsidiaries to operate like an outsourcing provider, but the firms actually **own** the subsidiaries.
- They are launched in **less expensive locations**, usually away from the company's headquarters or major operating units.

# Insourcing: Captive Center

19

- The three most common types of captive centers are basic, shared, and hybrid.

|                       |                                                                                                                                                                                                                                                                       |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Basic Captive Center  | <ul style="list-style-type: none"><li>• Provides services only to the parent firm.</li></ul>                                                                                                                                                                          |
| Shared Captive Center | <ul style="list-style-type: none"><li>• Performs work for both a parent company and external customers.</li></ul>                                                                                                                                                     |
| Hybrid Captive Center | <ul style="list-style-type: none"><li>• Typically performs the more expensive, higher profile (세간의 이목을 끄는) or mission-critical work for the parent company and outsources the more commoditized work that is more cheaply provided by an offshore provider.</li></ul> |

# Insourcing: Captive Center

20

- Four major strategies that are being employed:

|                    |                                                                                                                                                         |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hybrid Captive     | <ul style="list-style-type: none"><li>• Performs core business processes for parent company but outsources noncore work to offshore provider.</li></ul> |
| Shared Captive     | <ul style="list-style-type: none"><li>• Performs work for both parent company and external customers.</li></ul>                                         |
| Divested Captive   | <ul style="list-style-type: none"><li>• Have a large enough scale and scope that it could be sold for a profit by the parent company.</li></ul>         |
| Terminated Captive | <ul style="list-style-type: none"><li>• Has been shut down, usually because its inferior service was hurting the parent company's reputation.</li></ul> |

# Insourcing: Drivers and Challenges

21

| Drivers                                                                                                                                                                                                                                                                 | Challenges                                                                                                                                                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• Core competencies related to systems</li><li>• Confidentiality or sensitive system components or services</li><li>• Time available in-house to develop software</li><li>• Expertise for software development in-house</li></ul> | <ul style="list-style-type: none"><li>• Inadequate support from top management to acquire needed resources</li><li>• Temptation from finding a reliable, competent outsourcing provider</li></ul> |

# Outsourcing

22

- Outsourcing is the purchase of a good or service that previously was (or could be) provided internally but is now provided by outside vendors.
- The “Kodak effect in 1989”
  - Kodak outsourced its data center operations to IBM, its network to DEC, and its desktop supply and support operations to Businessland.
  - Kodak retained a skeleton (최소한의 기본 인원) IS staff.
  - Kodak’s approach to supplier management became a model emulated by Continental Bank, General Dynamics, Continental Airlines, National Car Rental, etc.
- Outsourcing has expanded to include essential functions such as customer service and other aspects that provide competitive advantage.



# Factors in the Outsourcing Decision

23

- Cost reduction achieved through economies of scale.
- Need for help transitioning to new technologies through access to larger IT talent pools.
- Ability to handle peaks in processing.
- Consolidating data centers (e.g., following a merger or acquisition).
- An infusion of cash from the sale of its equipment to the outsourcing vendor.

# Additional Advantages for Outsourcing

24

- Focusing management's attention on core activities.
- Helping a company transition to new technologies.
- Gaining access to larger pools of talent with more current knowledge of advancing technologies.
- Helping implement technologies such as Enterprise 2.0, Web 2.0 tools, and ERP systems.
- Knowing how to hire, manage, and retain IT staff.



# Outsourcing Risks

25

- Opponents of outsourcing cite a considerable number of **risks**.
  - Figure 10.2.1 ~ 10.2.2
- A manager should consider each of these before making a decision about outsourcing.
- Each risk can be mitigated with effective planning and ongoing management.

# Outsourcing Risks

26

1. Outsourcing requires that a client company **surrender some control** over critical aspects of the enterprise.
2. Poorly planned outsourcing **can result in a loss in IS flexibility**.
3. By surrendering IS functions, a client company **risks the potential loss of competitive advantage** -- unless, of course, the outsourcing agreement is sophisticated enough to include developing such an advantage in tandem with the outsourcing company.
4. Contract terms may leave client companies **highly dependent on their outsourcing provider** with little recourse in terms of terminating troublesome provider relationships.

# Outsourcing Risks

27

5. It might be **harder to protect its competitive secrets** when a company employs an outsourcing provider.
6. The **outsourcing provider's culture or operations may be incompatible** with that of the client company, making the delivery of the contracted service or system difficult.
7. Although many companies turn to outsourcing because of perceived cost savings, these **savings may never be realized**.

# Outsourcing: Advantages & Disadvantages

28

| Advantages                                                                                                                                                                                                                                                                                                               | Disadvantages                                                                                                                                                                                                                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• Offer cost savings</li><li>• Offer service quality</li><li>• Ease transition to new technologies</li><li>• Offer better strategic focus</li><li>• Provide better mgmt of IS staff</li><li>• Handle peaks</li><li>• Consolidate data centers</li><li>• Infusion of cash</li></ul> | <ul style="list-style-type: none"><li>• Abdication of control</li><li>• High switching costs</li><li>• Lack of technological innovation</li><li>• Loss of strategic advantage</li><li>• Reliance on outsourcer</li><li>• Problems with security/confidentiality</li><li>• Evaporation of cost savings</li></ul> |

# Decisions about How to Outsource Successfully

29

- The decision about whether or not to outsource must be made with adequate care and deliberation.
- Requires numerous **other decisions** about mitigating outsourcing risks.
- Three major decision areas:
  - Selection
  - Contracting
  - Scope

# Decisions about How to Outsource Successfully: Selection

30

- Selection-related decisions focus on finding compatible outsourcing providers whose capabilities, managers, internal operations, technologies, and culture complement those of the client company.
- This means that compatibility and cultural fit might trump price, especially when long-term partnerships are envisioned.
- Selection factors are discussed more fully in the "where" and "where abroad" decisions.

# Decisions about How to Outsource Successfully: Contracting

31

- Many “**how**” decisions center around the outsourcing contract.
- Ensure that contract terms allow flexibility to manage and, if necessary, sever supplier relationships.
- Shorter duration contracts.
  - Between three to five years.
  - Full life-cycle service contracts are broken up into stages.

# Decisions about How to Outsource Successfully: Contracting

32

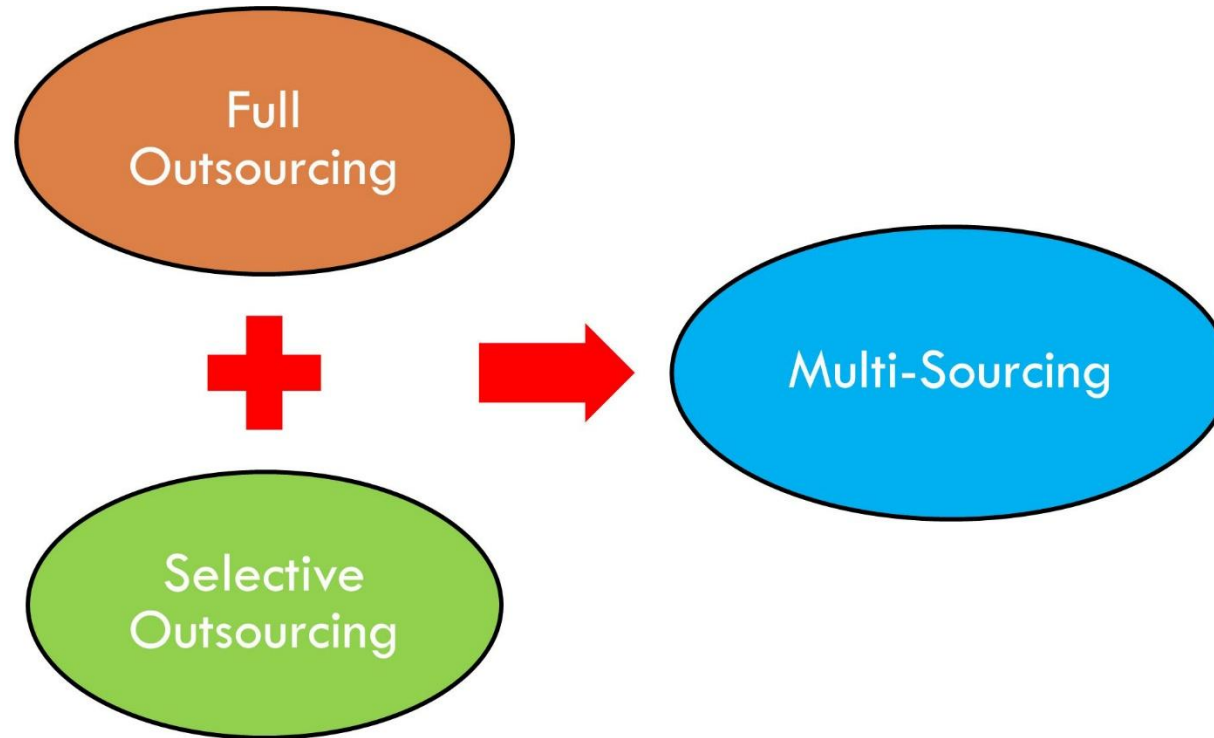
- **Service Level Agreements** (SLAs) define the level of service between the clients and providers such as:
  - Delivery time and expected performance of the service.
  - Actions to be taken in the event of a deterioration in quality of service or non-compliance to service-level agreements.
  - Service levels, baseline period measurements, growth rates, and service volume fluctuations.



# Decisions about How to Outsource Successfully: **Scope**

33

- Client must decide whether to pursue outsourcing fully or selectively.



# Full versus Selective Outsourcing

34

- **Full outsourcing** implies that an enterprise outsources **all** its IS functions **from** desktop services **to** software development.
  - Kellwood (**from** Full outsourcing **to** Backsourcing (Insourcing) **to** Cloud Computing)
- **Selective outsourcing** -- or **strategic sourcing** -- an enterprise chooses which IT capabilities to retain in-house and which to give to an outsider.
  - Reduces the client company's reliance on outsourcing with only one provider.
  - Provides greater flexibility and often better service due to the competitive market.

# Full versus Selective Outsourcing: JetBlue

35

- Consider JetBlue, an airline that turned to Verizon to manage its IT infrastructure -- its network, data center, and help desk.
- The six-year contract with Verizon **allows** the data centers **to** scale as JetBlue grows and helps JetBlue "reduce the cycle time for delivery of those capabilities and **allow** the rest of IT **to** focus on other capabilities," said JetBlue CIO, Joe Eng.



# Full versus Selective Outsourcing: JetBlue

36

- Eng asserted that JetBlue can still have control over IT:
- "We own the decision paths, the service-level agreements and what direction we want to take, but Verizon will be key in the implementation."
- Verizon was chosen over other providers for a number of reason, especially because the operation of networks is its core business.



# Full versus Selective Outsourcing

37

- In a “best-of-breed” approach or IT multi-sourcing (delegating IT projects and services in a managed way to multiple vendors who must (at least partly) work cooperatively to achieve the client's business objectives), suppliers are chosen for their expertise in specific technology areas such as:
  - Website hosting, Web 2.0 applications, business process application development, help desk support, networking and communications, social IT services, and data center operations.

# Full versus Selective Outsourcing: Adidas

38

- Adidas, a multinational footwear and sports apparel company, recently adopted a multi-sourcing strategy, which carefully pitted three IT providers against each other at the same time that they were working cooperatively together.
- Adidas split virtually all of its huge IT budget allocated for outsourcing among three providers:
  - A large Indian outsourcing company with which it had worked for a decade
  - Two "hungry" smaller firms



# Full versus Selective Outsourcing: Adidas

39

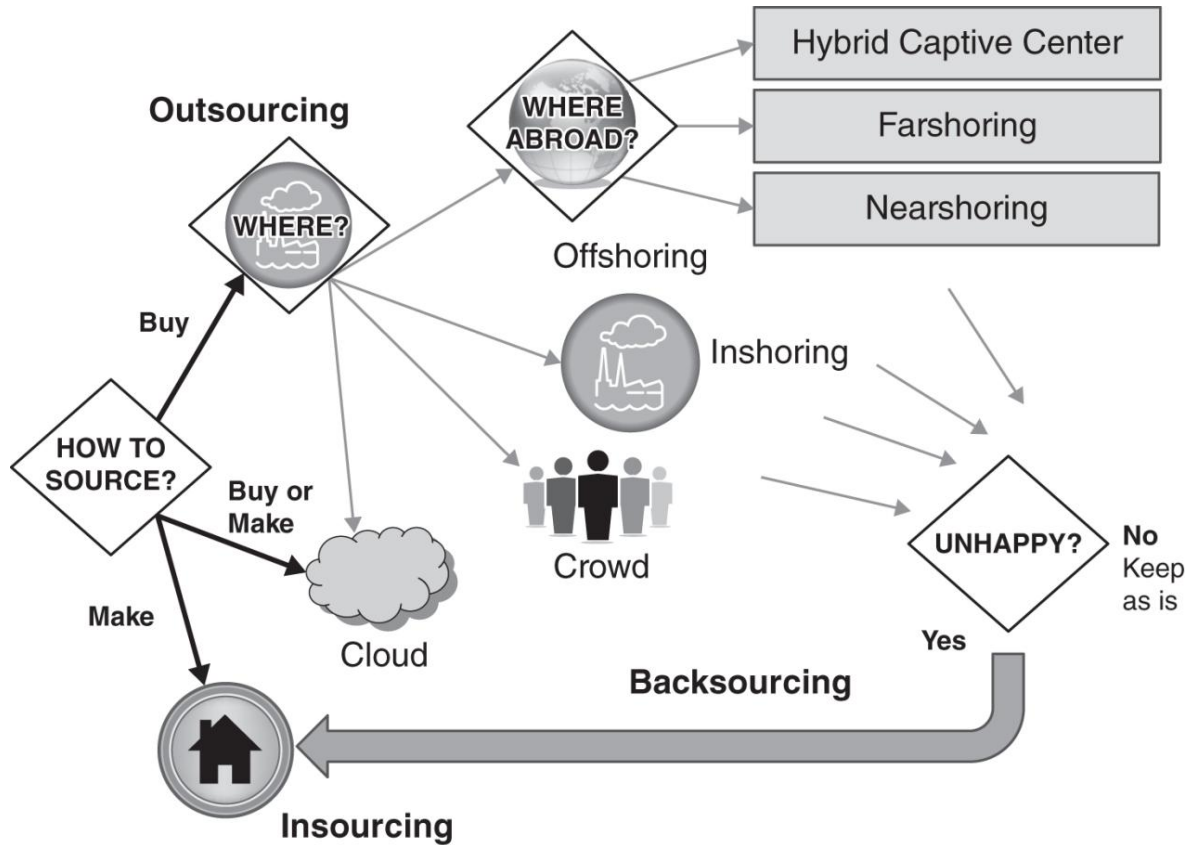
- Adidas selected the three firms in such a way that at least two vendors, and sometimes all three, could perform particular services that it needed.
- The large Indian outsourcing provider had become complacent, and the competition provided better IT services at a lower price.
- In addition, all three vendors were charged to be more innovative.
- Through careful management, Adidas orchestrated the delicate balance **between** provider cooperation **and** competition among the providers.



# Deciding Where - in the Cloud, Crowd, Onshoring, or Offshoring?

40

- Previously outsourcing options were either to use services **onshore** (same country as the client) or **offshore** (a distant country).
- New sourcing option: **cloud computing**.



Note: Insourcing can include captive centers or the cloud



# Cloud Computing

41

- Cloud computing:
  - A third party provides IT services **over the Internet**.
  - Provides an entire data center's worth of servers, networking devices, systems management, security, storage, and other infrastructure.



# Cloud Computing

42

- Clients buy the exact amount of storage, computing power, security, or other IT functions they need, when they need it, and pay only for what they use.
  - Cost saving.
- 24/7 access from multiple mobile devices.
  - High availability for large backup data storage.
  - Ease of use.



# Cloud Computing Options

43

- On-premise
  - Data is managed by the company and remains within the company's existing infrastructure.
- Private clouds
  - Data is managed offsite by a third party.
- Community (Public) clouds
  - The cloud infrastructure is shared by several organizations and supports the shared concerns of a specific community.



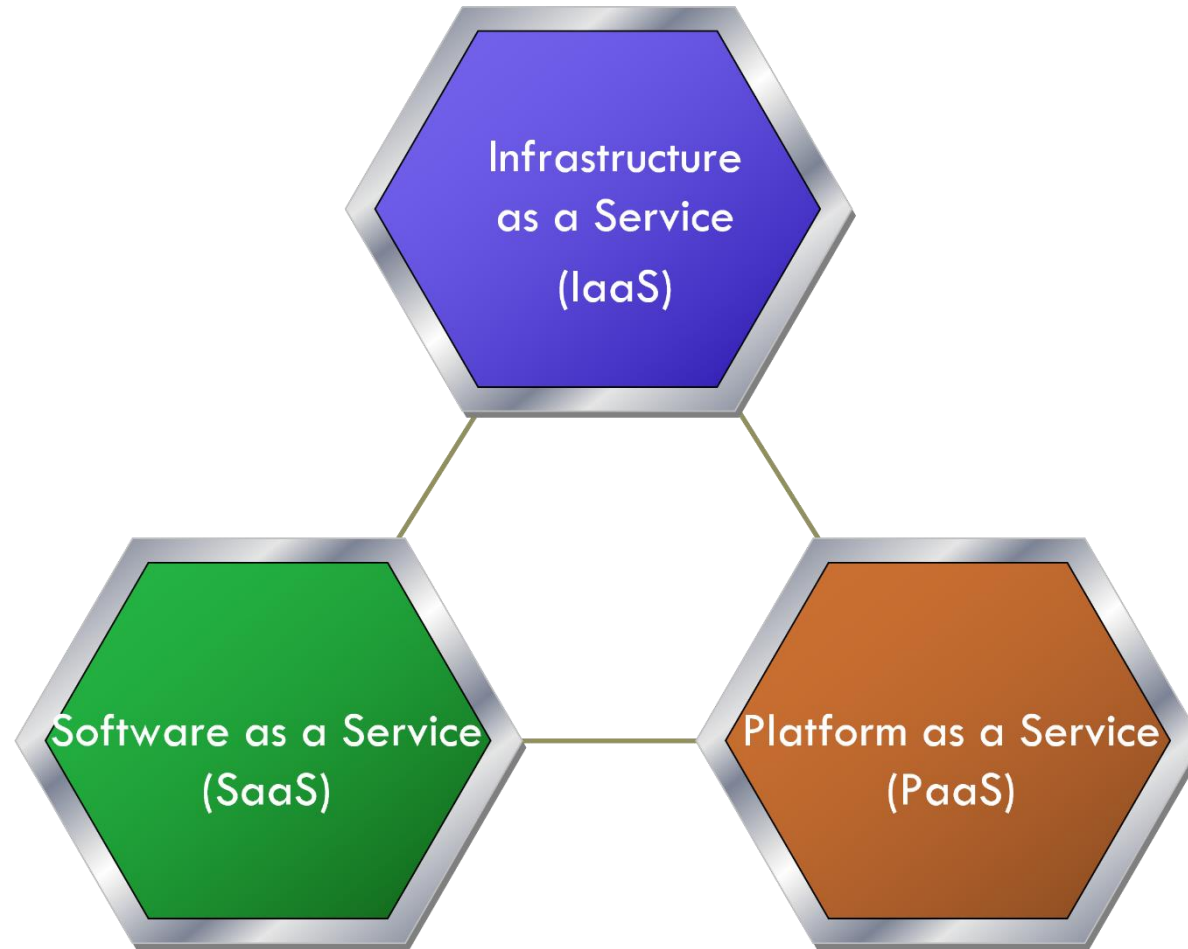
# Cloud Computing Options

44

- Hybrid clouds
  - Combination of two or more other clouds.
- Multi-cloud
  - Multiple clouds under centralized management.
  - In multi-clouds, there is no distinction between private and public clouds, and none of the clouds need to work in combination.

# Public Clouds

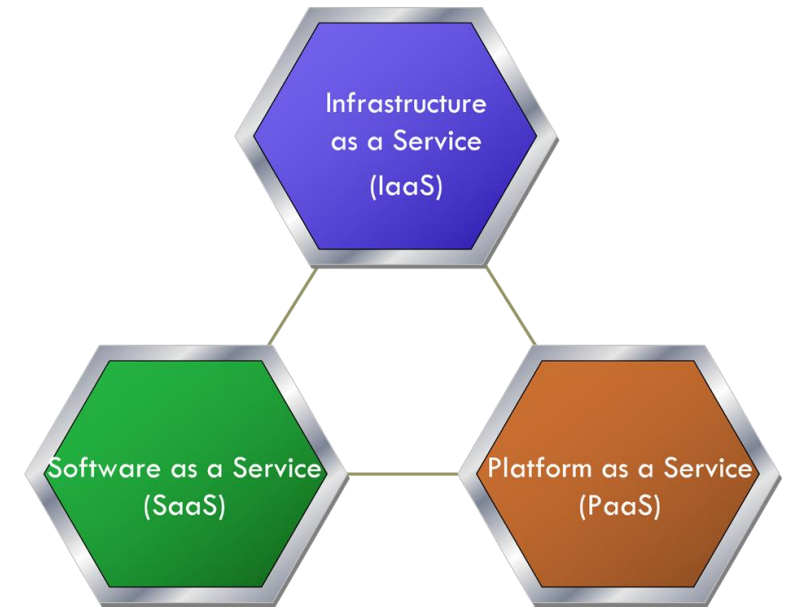
45



# Infrastructure as a Service (IaaS)

46

- Provides infrastructure through grids or clusters or virtualized servers, networks, storage, and systems software.
- Designed to augment or replace the functions of an entire data center.
- The customer may have full control of the actual server configuration.
  - More risk management control over the data and environment.



# Infrastructure as a Service (IaaS): NetFlix

47

- Netflix realized the advantages of **cloud computing** to support its strategic initiative to **stream** movies **to** its customers instead of mailing them DVDs.
- To do so, it needed so much more infrastructure that the cloud appeared to be its only option.
- "Netflix.com is nearly 100% in the cloud .... We really couldn't build data centers fast enough," says Jason Chan, Netflix's cloud security architect.



# Infrastructure as a Service (IaaS): Netflix

48

- The introduction of a Netflix application for iPhones will place even greater spikes in demand, at least temporarily.
- But Chan isn't concerned: "That's what cloud is really intended for."

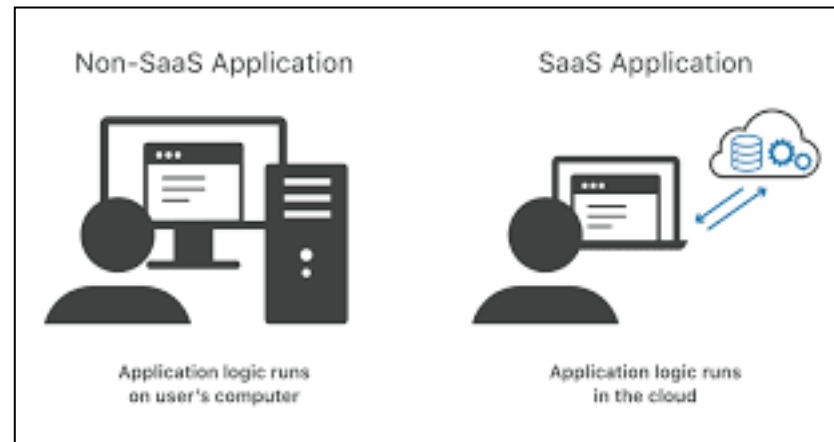




# Software as a Service (SaaS) or Application Service Provider (ASP)

49

- Software application functionality through a web browser.
- The platform and infrastructure are fully managed by the cloud provider.
- If the operating system or underlying service isn't configured correctly, the data at the higher application layer may be at risk.



# Software as a Service (SaaS) or Application Service Provider (ASP)

50

- The most widely known and used form of cloud computing.
- Some managers shy away from (avoid) cloud computing because they are concerned about:
  - Security—specifically about external threats from remote hackers and security breaches as the data travels to and from the cloud.
  - Data privacy.

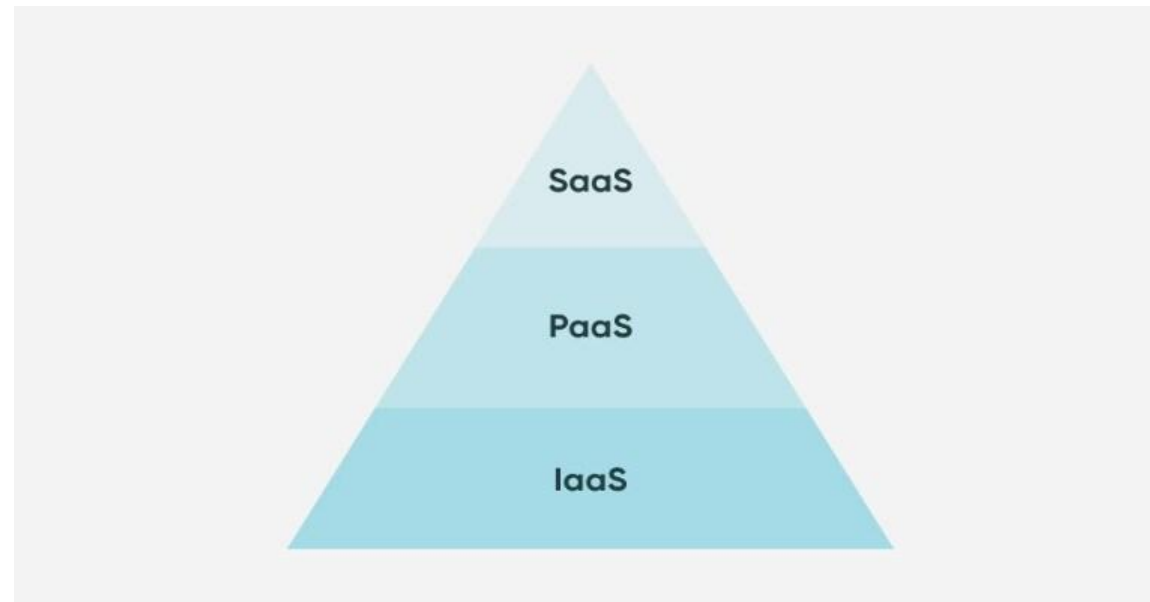


Application service  
provider

# Platform as a Service (PaaS)

51

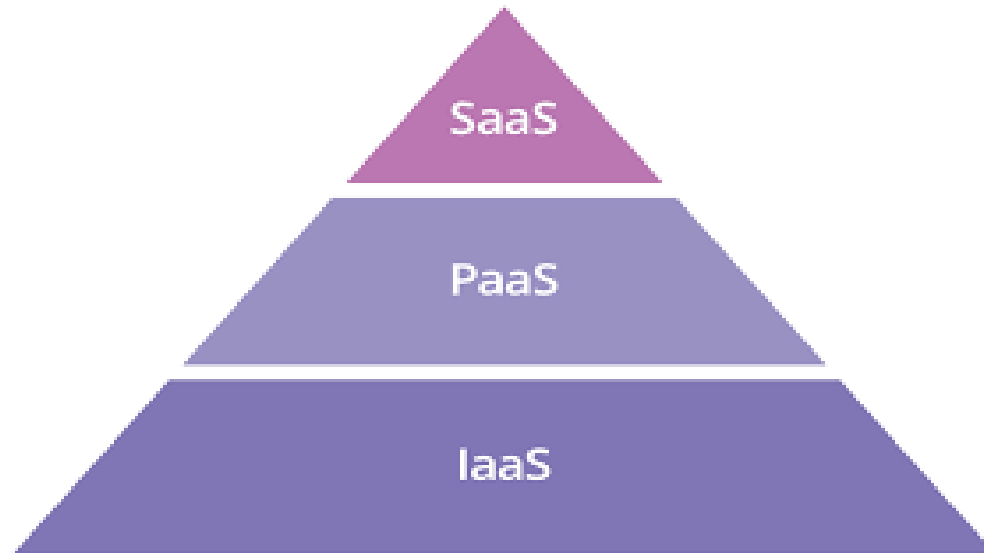
- Provides services using virtualized servers on which clients can run existing applications or develop new ones without having to worry about maintaining the operating systems, server hardware, load balancing, or computing capacity.
- Provider manages the hardware and underlying operating system.



# Platform as a Service (PaaS)

52

- Limits the enterprise risk management capabilities.
- Bayer Healthcare's cloud platform-based component development (PaaS) is used to customize cloud solutions when the existing SaaS solutions are unable to satisfy the complex, idiosyncratic (different) needs of its large business units.



# Crowdsourcing

53

- Crowd + Outsourcing
- A form of outsourcing that is provided by a very large number of individuals.
- It is good for well-defined and highly targeted tasks; especially those that can be decomposed into small activities.
- Two forms of crowdsourcing are available:
  - Collaboration
  - Tournament.



# Crowdsourcing

54

- **Collaboration crowdsourcing** occurs when individuals use social media to collectively create a common document or solution.
  - Examples are Wikipedia or crowdsourcing for innovation
- **Tournament crowdsourcing** also uses social media to solicit and collect independent solutions from a potentially large number of individuals but selects one or a few of the contributions in exchange for financial or nonfinancial compensation.



# Onshoring

55

- **Onshoring**, or **inshoring**, is performing outsourcing work domestically.
- **Onshoring** may be considered the opposite of **offshoring**.
- Rural sourcing, hiring outsourcing providers with operations in rural parts of America, is a growing trend.
  - Lower salaries and living costs.
  - A closer time zone, similar culture, and fewer hassles that crop up (come up) when dealing with foreign outsourcing providers.
  - Too small to handle large-scale projects.
  - May not have the most technologically advanced employees.

# Offshoring

56

- **Offshoring (or outsourcing offshore)** -- the IS organization uses contractor services or even builds its own data center in a distant land.
- Functions **range from** routine IT transactions **to** increasingly higher-end, knowledge-based business processes.
- Programmer salaries can be a fraction of those in the home country.
- Other costs increase due to additional technology, telecommunications, travel, process changes, and management overhead.



# Offshoring

57

- Other reasons to offshore:
  - Employees in many offshore companies are well-educated (have master's degrees) and are proud to work for an international company.
  - Offshore providers are often “profit centers” and have established Six Sigma, ISO 9001, or another certification program.

# Deciding Where Abroad: Nearshoring or Farshoring?

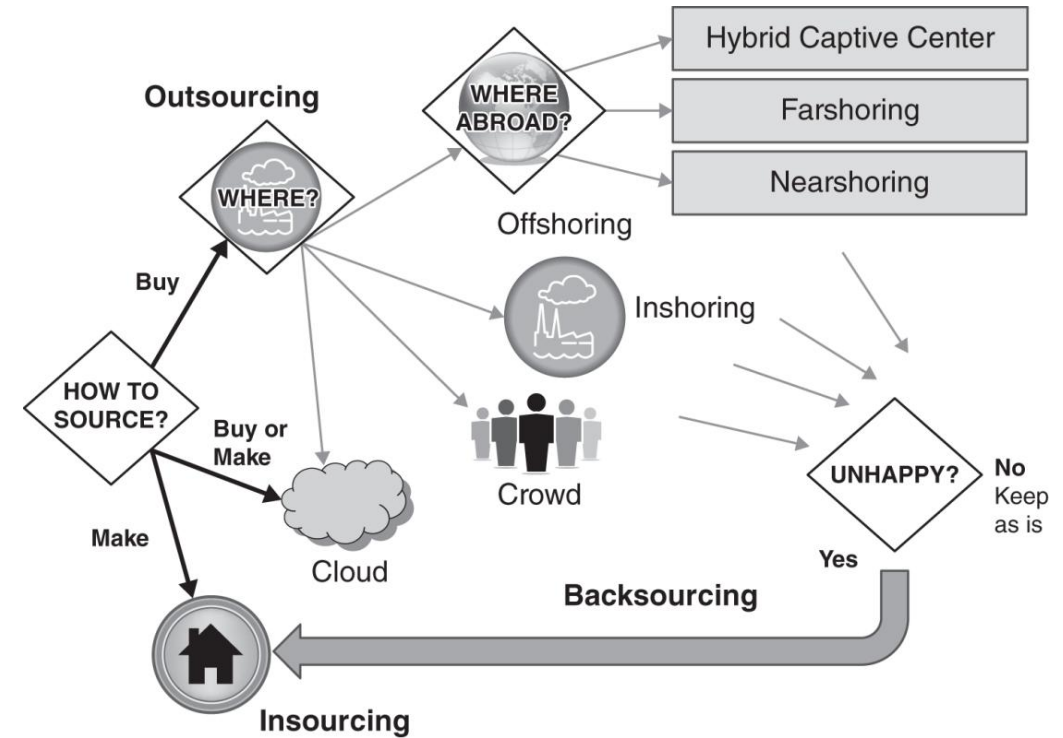
58

- **Offshoring** can be either relatively proximate (**nearshoring**) or in a distant land (**farshoring**).
- An alternative to offshoring is a **captive center**.
- **Farshoring** is a form of offshoring that involves sourcing service work to a foreign, lower-wage country that is relatively far away in distance or time zone (or both).
  - India and China are the most popular farshoring destinations.

# Deciding Where Abroad: Nearshoring or Farshoring?

59

- **Nearshoring** is when work is sourced to a foreign, lower-wage country that is relatively close in distance or time zone.
- The client hopes to benefit from one or more ways of being close -- geographically, temporally, culturally, linguistically, economically, politically, or from historical linkages.



Note: Insourcing can include captive centers or the cloud

# Deciding Where Abroad: Nearshoring or Farshoring?

60

|                          | Insourcing                                                                                                                                                                                                                      | Outsourcing                                                                                                                                                                                                                                      |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Domestic<br>(Local)      | <ul style="list-style-type: none"><li>• Situation in which a firm provides IS services or develops IS products in its own in-house organization and/or in its local private cloud or, possibly, local community cloud</li></ul> | <ul style="list-style-type: none"><li>• Purchase of an IS good or service that is provided by an outside domestic outsourcing provider (i.e., onshoring), or by a rural or local cloud provider</li></ul>                                        |
| Nondomestic<br>(Foreign) | <ul style="list-style-type: none"><li>• Situation in which a firm uses an offshore Global In-house Center (GIC)</li></ul>                                                                                                       | <ul style="list-style-type: none"><li>• Situation when the IS organization uses contractor services in a distant land or in the ether; may include nearshoring, farshoring, cloud computing, crowdsourcing, or a hybrid captive center</li></ul> |

Figure 10.3 Different Forms of Sourcing

# Farshoring

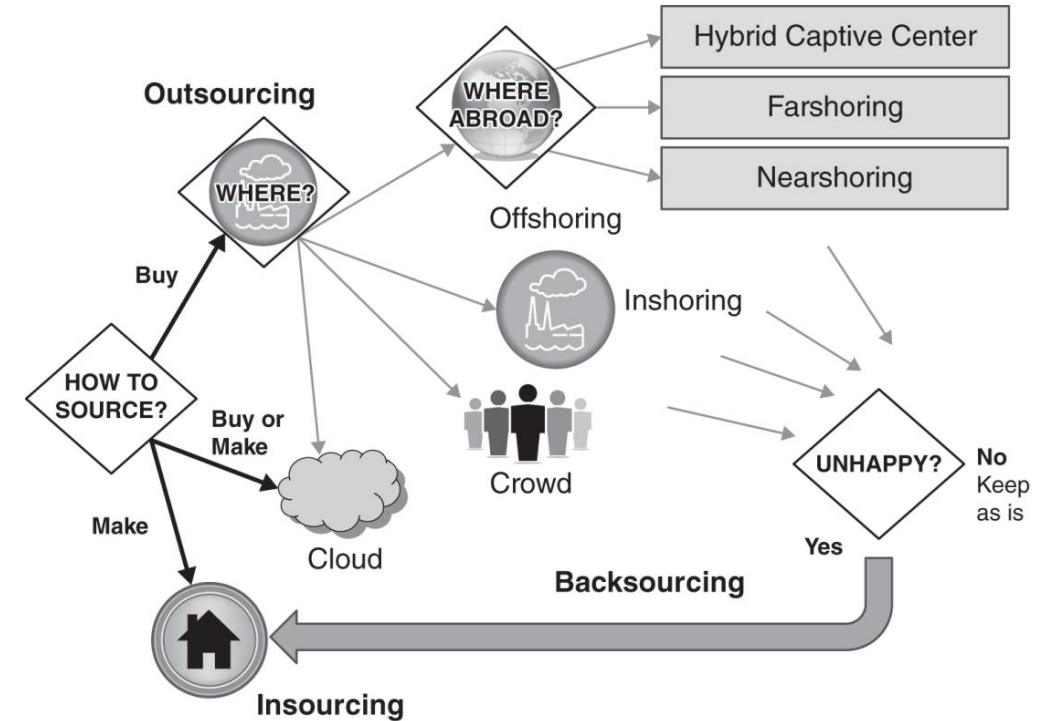
61

- A form of offshoring that involves sourcing service work to **a foreign, lower-wage country** that is relatively far away in distance or time zone (or both).
- For countries such as the United States and United Kingdom that outsource large amounts of work, **India and China** are the most popular farshoring destinations.
- Ironically, companies in India and China are now themselves farshoring to countries with lower labor costs.

# Nearshoring

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- Uses providers in foreign, lower-wage countries that are relatively close in distance or time zones to the client company.
- With nearshoring, the client company hopes to benefit from one or more dimensions of being close: geographic, temporal, cultural, linguistic, economic, political, or historic linkages.



Note: Insourcing can include captive centers or the cloud

# Nearshoring

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- Nearshoring basically challenges the assumption on which farshoring is premised:
  - Distance doesn't matter.
- The advocates of nearshoring argue that distance does matter, and when closer on one or more of these dimensions, the client company faces fewer challenges in terms of communication, control, supervision, coordination, or social bonding.

# Selecting an Offshore Destination: Answering the “Where Abroad?” Question

64

- Deciding where to offshore is a **difficult decision** that many companies face.
- Companies must consider:
  - Attractiveness
  - Level of Development
  - Cultural Differences





# Attractiveness

65

- Approximately 100 countries export software services and products.
- Factors affecting a country's attractiveness:
  - High English proficiency, on the verge of war, high rates of crime, friendly relationships with the home country, regulatory restrictions, trade issues, data security, intellectual property, level of technical infrastructure available.
- Check level of Capability Maturity Model Integration (CMMI)

## 통합 역량 성숙도 모델(CMMI)의 5단계



# Development Tiers

67

- Carmel and Tjia suggest that there are three tiers of software exporting nations:
  - **Tier 1:** Mature.
    - ✓ United Kingdom, United States, Japan, Germany, France, Canada, the Netherlands, Sweden, Finland, India, Ireland, Israel, China, and Russia.
  - **Tier 2:** Emerging.
    - ✓ Brazil, Costa Rica, South Korea, and many Eastern European countries.
  - **Tier 3:** Infant.
    - ✓ Cuba, Vietnam, Jordan, and 15 to 25 others.

# Development Tiers

68

- Carmel and Tjia suggest that there are three tiers of software exporting nations:
  - Tiers were determined based on industrial maturity, the extent of clustering of some critical mass of software enterprises, and export revenues.
  - The higher tiered countries have higher levels of skills and higher costs.



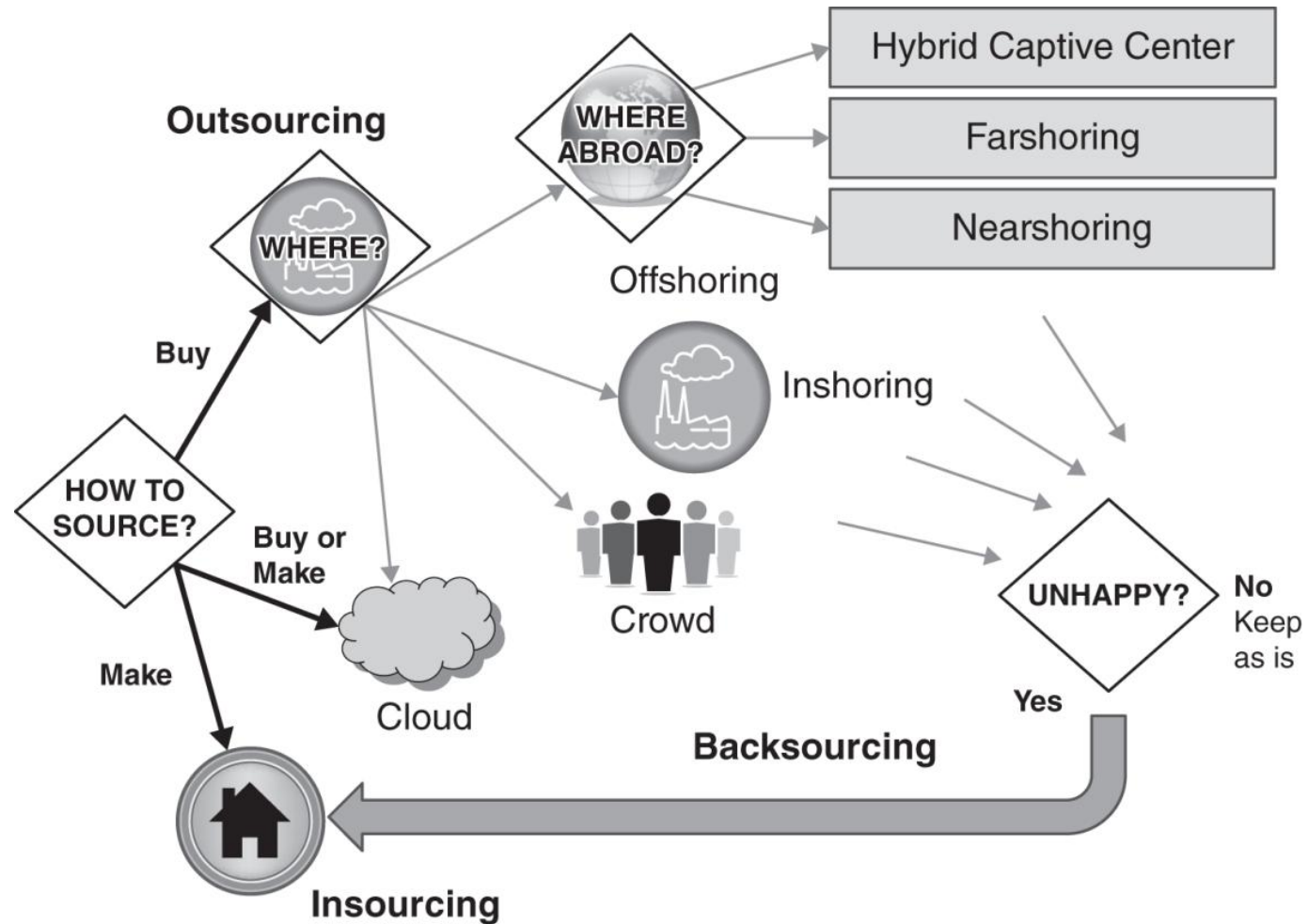
# Cultural Differences

69

- **Misunderstandings** arise because of differences in culture, language, and perceptions about time.
- Carmel and Tjia outlined some examples **of communication failures** with Indian developers:
  - Indians are less likely than Westerners to engage in small talk.
  - Indians often are not concerned with deadlines.
  - Indians, like Malaysians and other cultures, are hesitant about saying no.
  - What is funny in one culture is not necessarily funny in another culture.

# Re-evaluation—Unhappy with Sourcing Management Decision

70

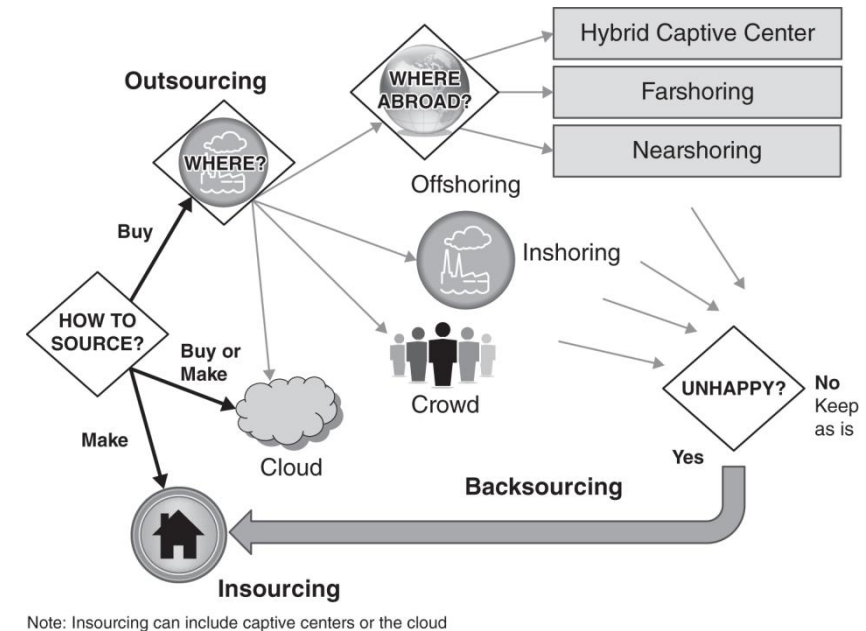


Note: Insourcing can include captive centers or the cloud

# Re-evaluation—Unhappy with Sourcing Management Decision

71

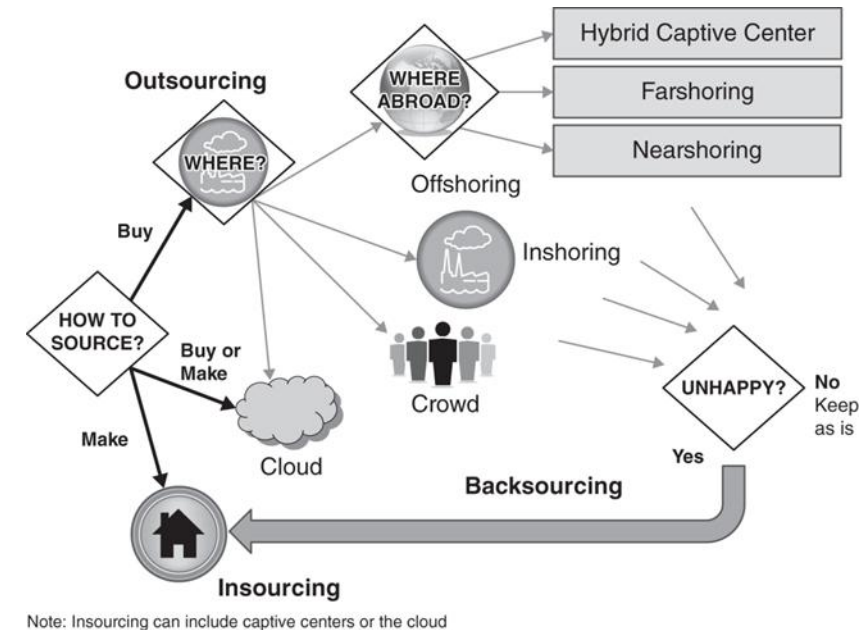
- **Backsourcing** is a business practice in which a company takes back in-house assets, activities, and skills that were part of its IS operations and were previously outsourced to one or more outside IS providers.
- Companies backsource after terminating, renegotiating, or letting their contracts expire.
- The reasons given for backsourcing often mirror the reasons for outsourcing.



# Re-evaluation—Unhappy with Sourcing Management Decision

72

- Outsourcing decisions can be difficult and expensive to reverse.
- Requires the enterprise to acquire the necessary infrastructure and staff.
- Backsourcing is followed by another cycle of decisions as the company responds to its dynamic environment.



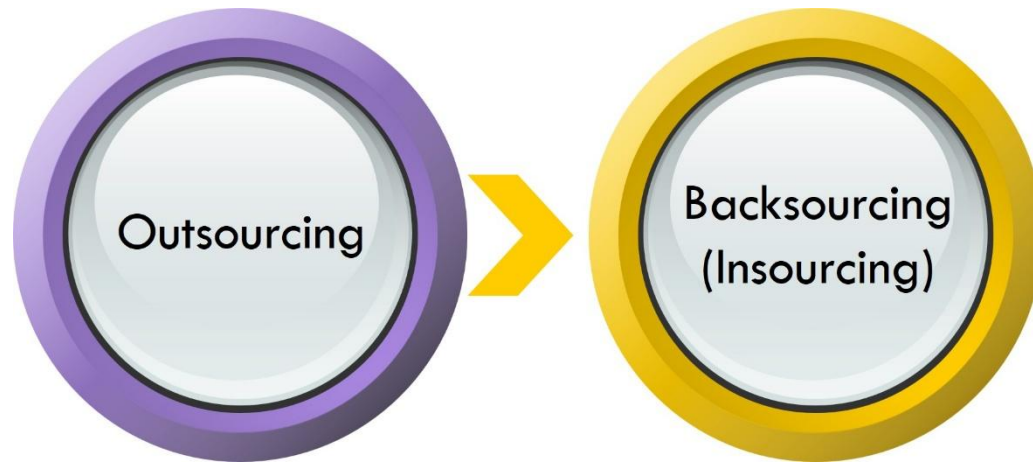


# Re-evaluation—Unhappy with Sourcing Management

## Decision: JP Morgan Chase

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- The most expensive contract that was backsourced to date was the one that JP Morgan Chase signed with IBM for a whopping **(very large)** \$5 billion dollars.
- JP Morgan Chase terminated its contract and **brought** information systems (IS) operations **back in-house** only 21 months into a seven-year mega-contract.

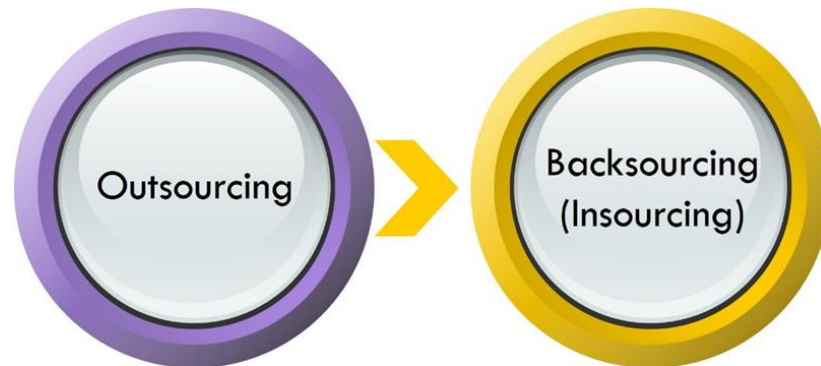


# Re-evaluation—Unhappy with Sourcing Management

## Decision: JP Morgan Chase

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- The CIO of JP Morgan Chase, Austin Adams stated at that time:
- "We believe managing our own technology infrastructure is best for the long-term growth and success of our company, as well as our shareholders."
- Our new capabilities will give us competitive advantages, accelerate innovation, and enable us to become more streamlined and efficient."
- A number of factors appear to have played a role in the decision to **bring** the IS operations **back in-house**.



# Re-evaluation—Unhappy with Sourcing Management

## Decision: JP Morgan Chase

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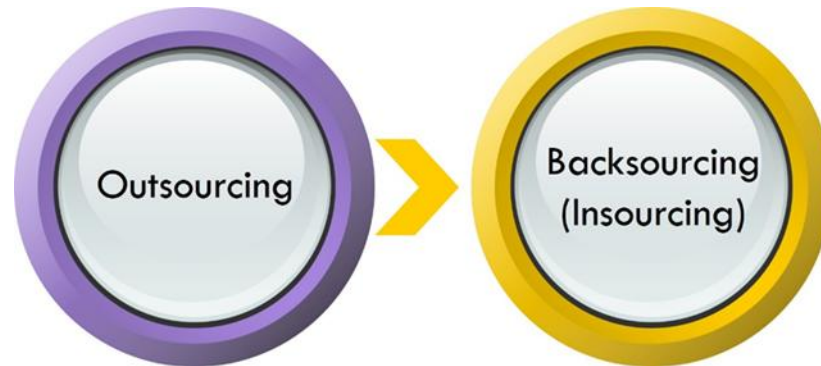
- Outsourcing appeared to stagnate (침체되다, 부진해지다) IT at JP Morgan Chase under the outsourcing arrangement.
- Another factor is that the company had undergone a major change with its July 2004 merger with Bank One, which had gained a reputation for **consolidating** data centers and **eliminating** thousands of computer applications.
- And the man who had played a big role in the consolidation was Bank One's CIO, Austin Adams.



# Re-evaluation—Unhappy with Sourcing Management Decision: JP Morgan Chase

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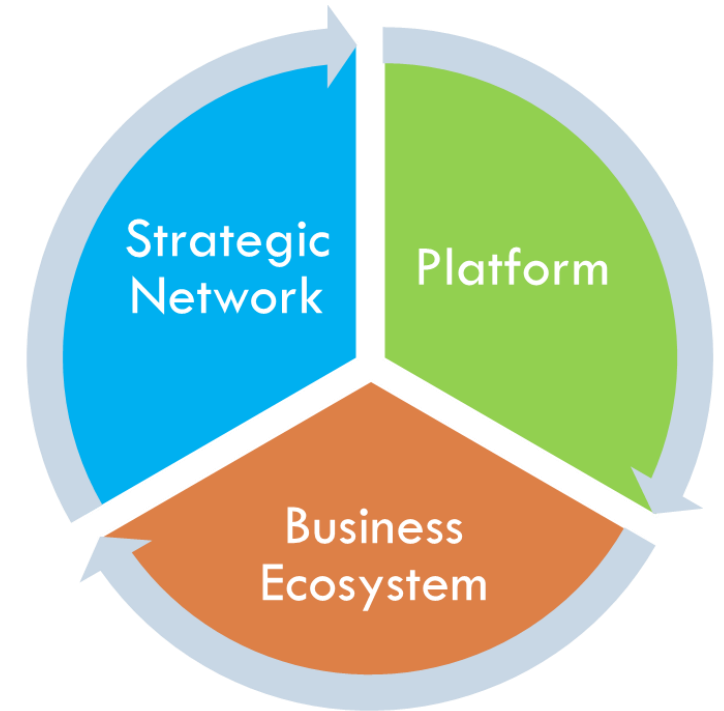
- In his new role at JP Morgan Chase, Adams managed the switch from IBM to self-sufficiency (자급자족) by taking advantage of the cost-cutting know-how he had gained at Bank One.
- Thus, the underperforming JP Morgan Chase learned much from the efficient Bank One.



# Outsourcing in the Broader Context

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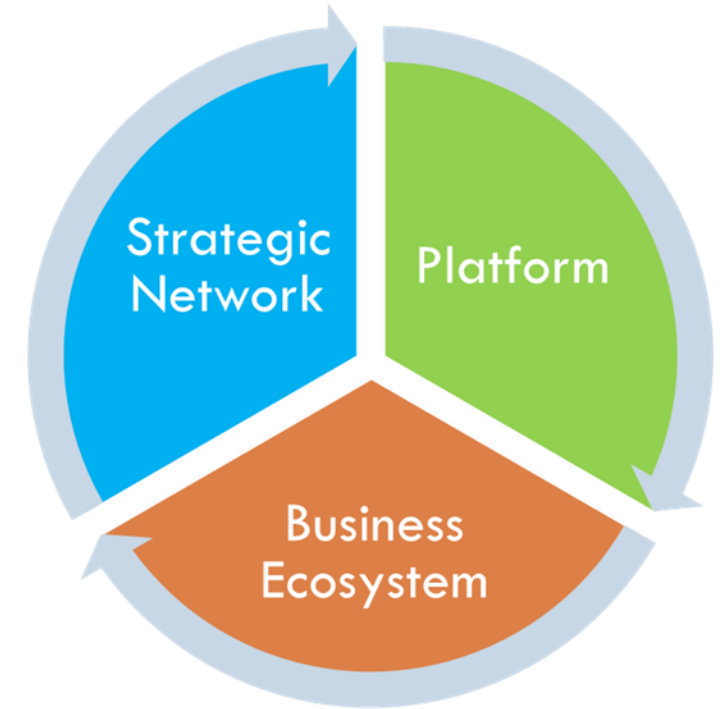
- Most of our discussion about outsourcing has focused on the dyadic relationship between a client and its outsourcing provider(s).
- However, as business becomes more complex and organizations become more intertwined with one another, it becomes increasingly important to consider outsourcing in a broader context that includes **strategic networks, platforms, and business ecosystems**.



# Outsourcing in the Broader Context: Strategic Networks

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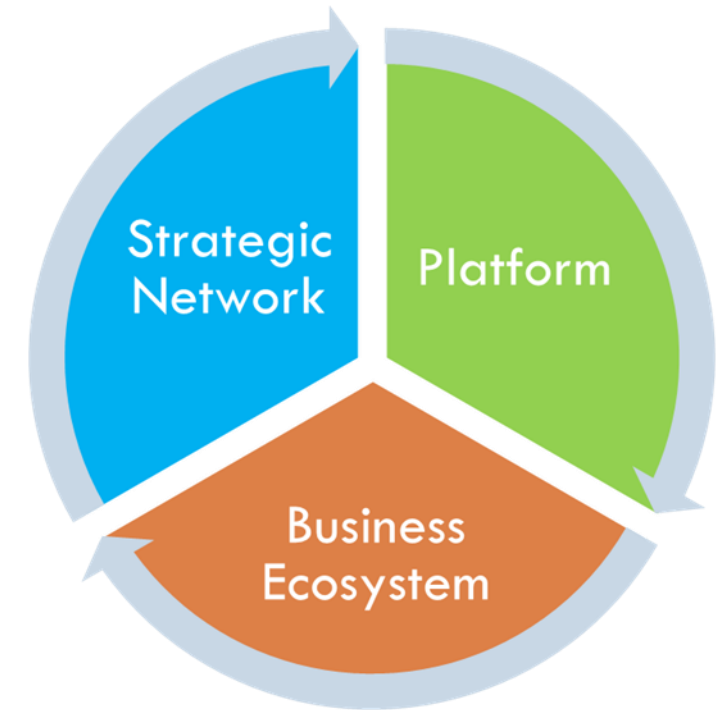
- A **strategic network** is a long-term, purposeful arrangement by which companies set up a web of close relationships that provide a product or service in a coordinated fashion.
- The client becomes a hub with suppliers as part of its network.
- Lowers the cost of working with others in the network.
- Company can become more efficient than its competitors (and very flexible).



# Outsourcing in the Broader Context: Platform

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- As more organizations try to migrate to **more adaptable and scalable platforms** by leveraging such technologies as the cloud, robotic process automation, and modern enterprise applications, outsourcing providers are forced to offer increased platforming and re-platforming services.



# Outsourcing in the Broader Context: Business Ecosystems

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- Defined as "an economic community supported by a foundation of interacting organizations and individuals-the organisms of the business world."
- This economic community is comprised of customers, suppliers, lead producers, competitors, outsourcing providers, and other stakeholders.

