

**MIS 3534 Fall 2014 –
Strategic Management of
Information Technology
*Day 2 – IT and Competitive
Strategies (I)***

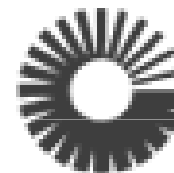
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Today, we will discuss ...

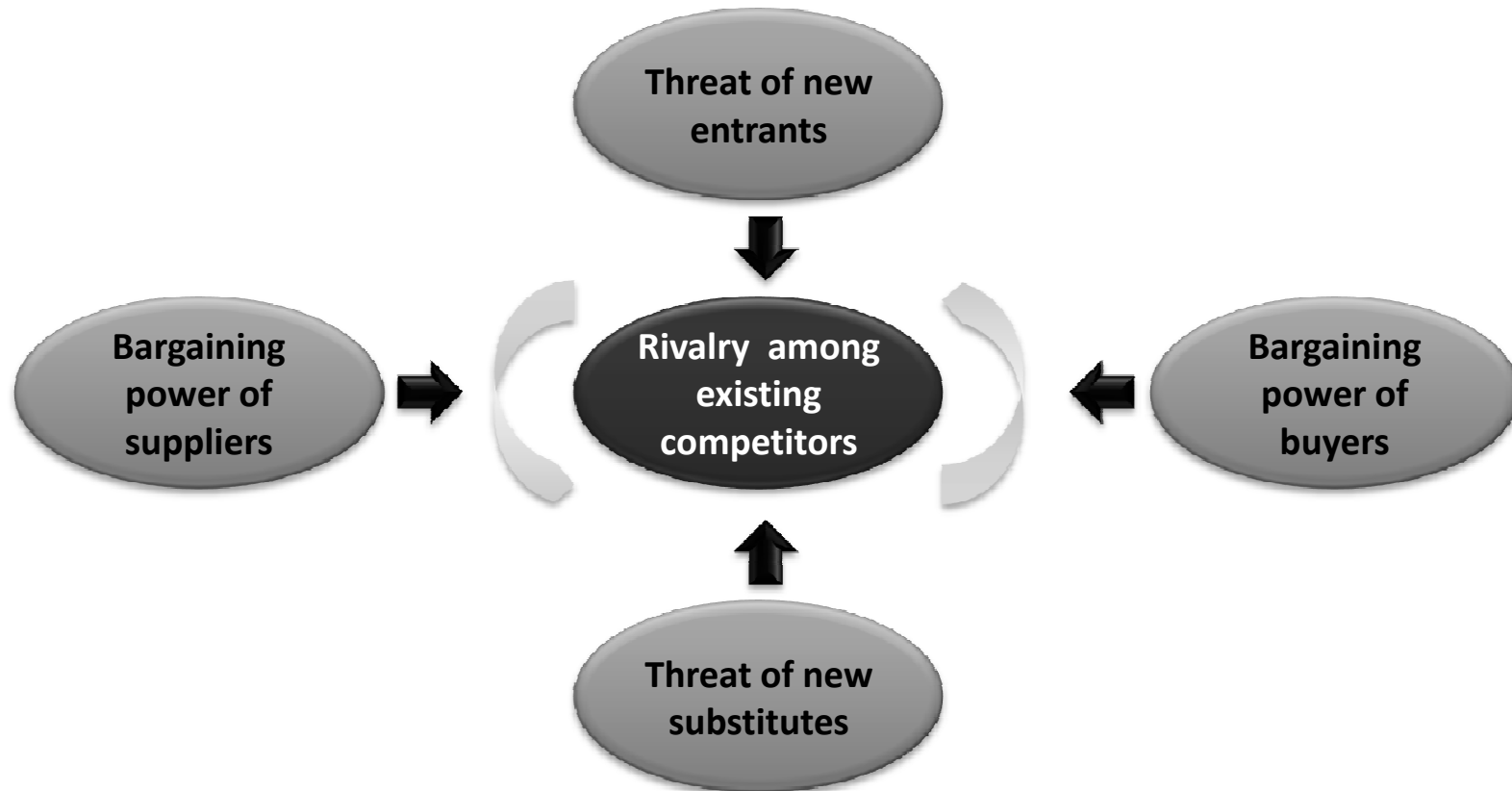
- Porter's Five Forces model
- Why and how Otis Elevator evolves from a manufacturing company to a service provider
- How OTISLINE and e*Logistics transform Otis and support its strategic initiative

**Otis**

A United Technologies Company

Porter's Five Forces Model (1/2)

- determines which industry or market is more competitive (i.e. less profitable)



Porter's Five Forces Model (2/2)

- An industry is more profitable (less competitive) when
 - buyers do not have a strong bargaining power,
 - suppliers do not have a strong bargaining power,
 - threat of new entrants is weak
 - threat of new substitutes is weak
 - and competition among existing competitors is not intense.

Bargaining Power of Buyers (1/3)

- What does it mean by a bargaining power of buyers?
- When would buyers have a strong bargaining power?
- Any example of switching costs?



Harvard Business Review - "The Five Forces That Shape Strategy" by M.E. Porter

Bargaining Power of Buyers (2/3)

- Buyers do not have a strong bargaining power (price becomes higher) when
 - the number of buyers is large compared to the number of suppliers,
 - they are price-insensitive (i.e. they buy the product no matter how expensive it is)
 - and they face high switching costs.

Bargaining Power of Buyers (3/3)

- Buyers face high switching costs when
 - they are locked in with a long-term contract (they have to pay termination fees to break the contract),
 - they enjoy network effects (the more customers use the same product, the more valuable to them, e.g. Facebook),
 - and it is expensive to change and find an alternative (high transaction costs) which include finding other providers, writing contracts, legal costs, training, and so forth.

Threat of New Entrants (1/2)

- Suppose you've got \$300 millions from winning a lottery. You want to start a new airline company.
- What does it takes for you to make the first flight take off?
 - i.e. what constitute “barriers to entry” to you?



Threat of New Entrants (2/2)

● Threat of new entrants is low when there are barriers to entry, which include

- capital investments,
- economies of scale,
- established customer base,
- brand,
- government regulation
- patent,
- and access to suppliers and distributors.

Rivalry among Existing Competitors

- If there are so many competitors in your industry or your market,
- what would you do to better compete with them?
- How to achieve higher profitability, not just market share?
- *Differentiation!*
 - Differentiated or high-quality products and services reduce both rivalry and bargaining power of buyers.
 - increase profitability

Otis's Elevator Manufacturing/Service Business (1/2)

- According to the case, which business is more profitable? Elevator manufacturing or service?
- Why? Explain based on the five forces.
- Manufacturing (installing a new elevator) is not profitable because the market is mature,
 - the number of available customers is small, so they have high bargaining powers.
 - Otis cannot set up a high price for a new elevator.

Otis's Elevator Manufacturing/Service Business (2/2)

- “The service market attracted *many participants* because of its steady demand, *low barriers of entry*, and high profitability.” (p. 3)
 - Doesn't it mean that the service market is *not* profitable for Otis?
- No, even though there are many players in the service market, most of them are little guys, while Otis is a “big guy.”
- Newer elevators with microprocessors cannot be maintained by little guys (i.e. products are differentiated.)
- Otis has a brand power. Customers want to trust its brand rather choosing a unknown provider.

You and Your Doctor

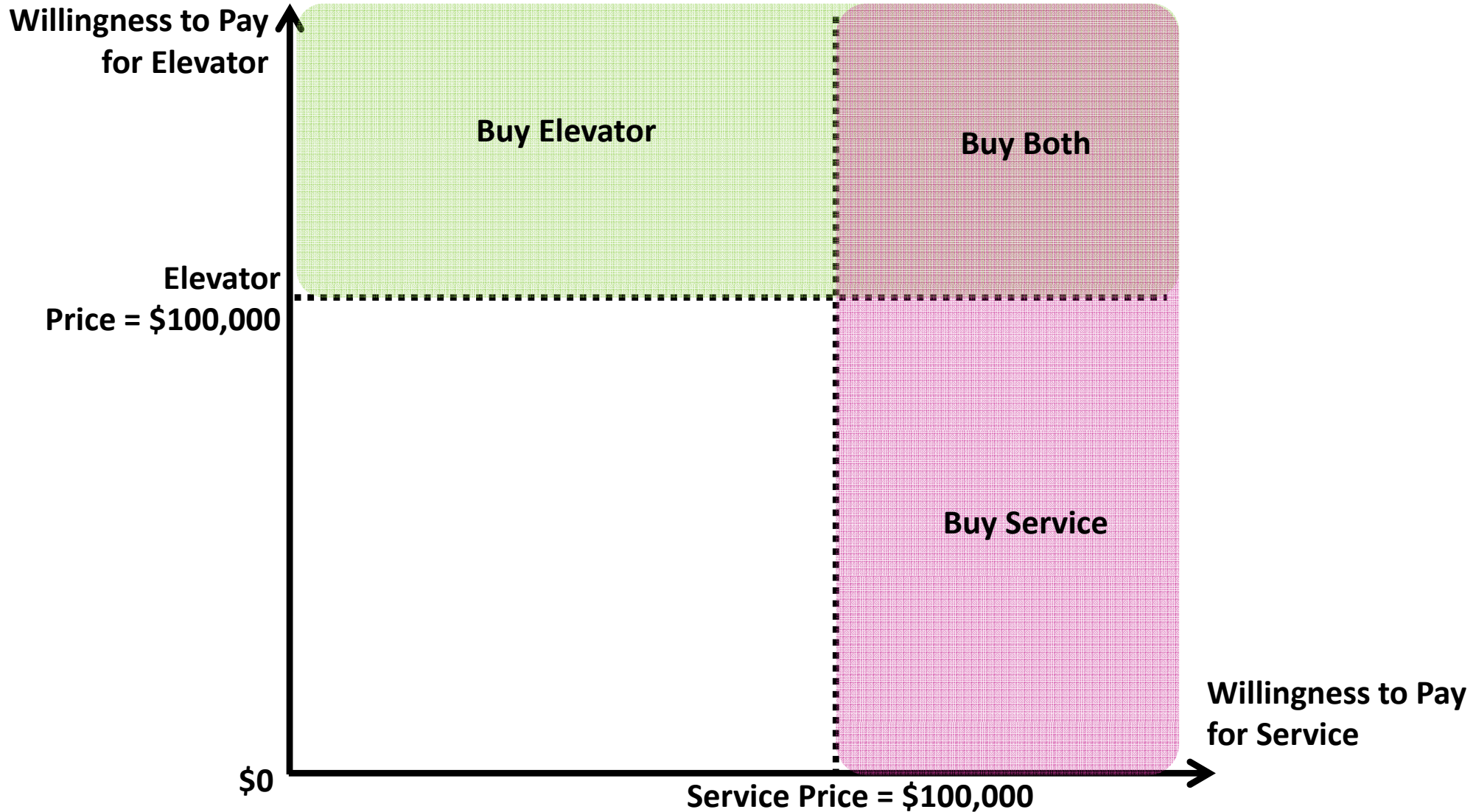
- How often do you change your doctor?
- Will Otis customers (building owners or managers) change an elevator service company often? Why or why not?
 - Changing service providers requires a substantial amount of transaction costs (or switching costs).
- If a customer doesn't change its service provider frequently, which party has more bargaining power?
 - The service provider can demand higher prices.



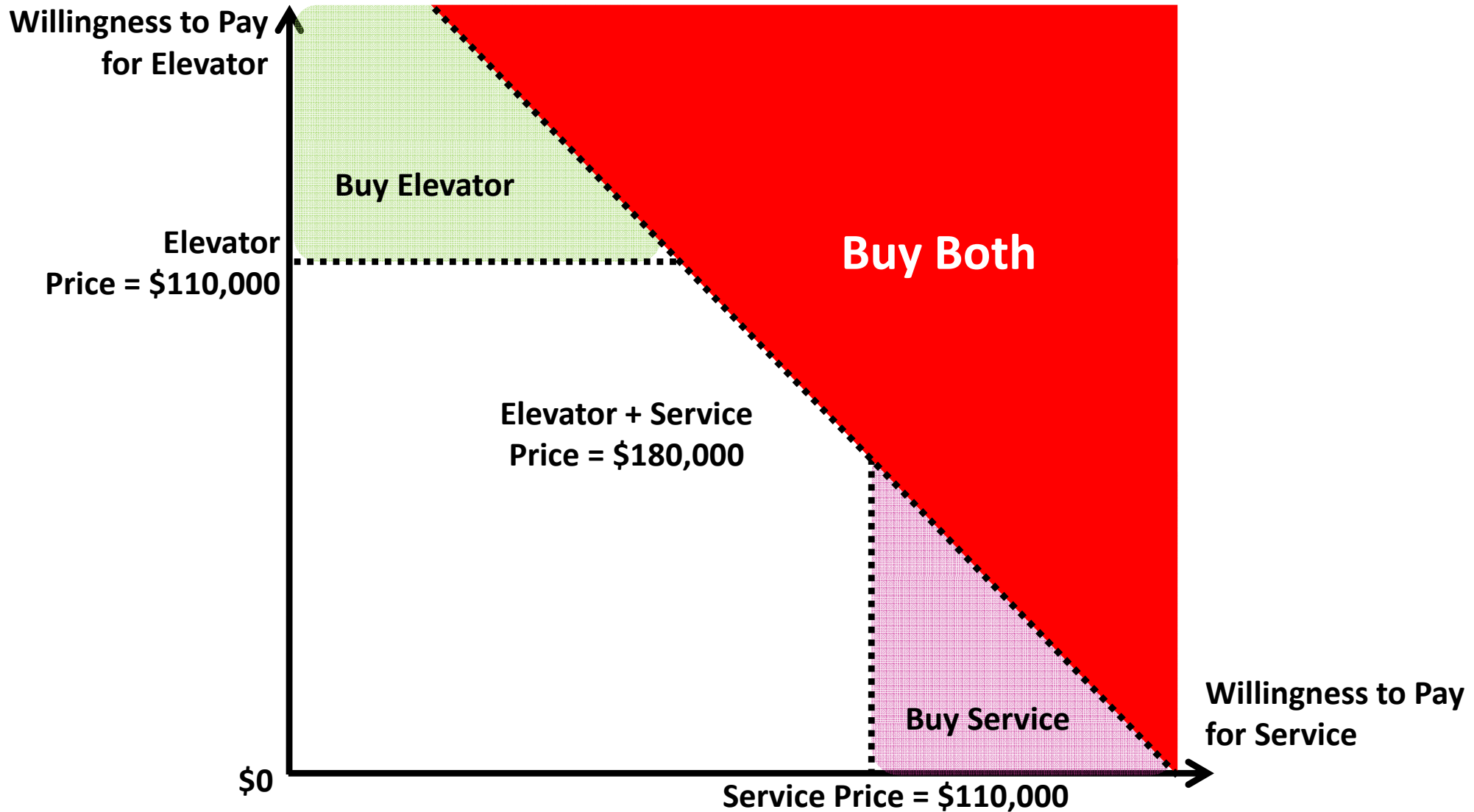
Bundling

- Can you think of an example of bundle around us?
- Why do firms sell a bundle?
- Why would bundling up an elevator (product) and maintenance services together (i.e. *total solutions*) be more profitable than selling an elevator and services individually?
 - By bundling up an elevator and a service contract with some discount, Otis can lure customers who would not buy a service contract without discount.

Bundling Profitability (1/2)



Bundling Profitability (2/2)



Strategic Transformation from Manufacturing to Service (1/3)

- “To become the recognized leader in service excellence among all companies – not just elevator companies – worldwide.” (p. 1)
- In Bousbib’s description, the company did not simply provide elevators but total solutions to customers. (p. 2)
- Bousbib challenged his executive staff to launch a new initiative that would make Otis the number one service company in the world. (p. 15)

Strategic Transformation from Manufacturing to Service (2/3)

- For Otis to successfully transform itself to a service provider as it wants, what kind of actions or changes were imperative?
- What was its goal?
 - What is a BHAG?

Strategic Transformation from Manufacturing to Service (3/3)

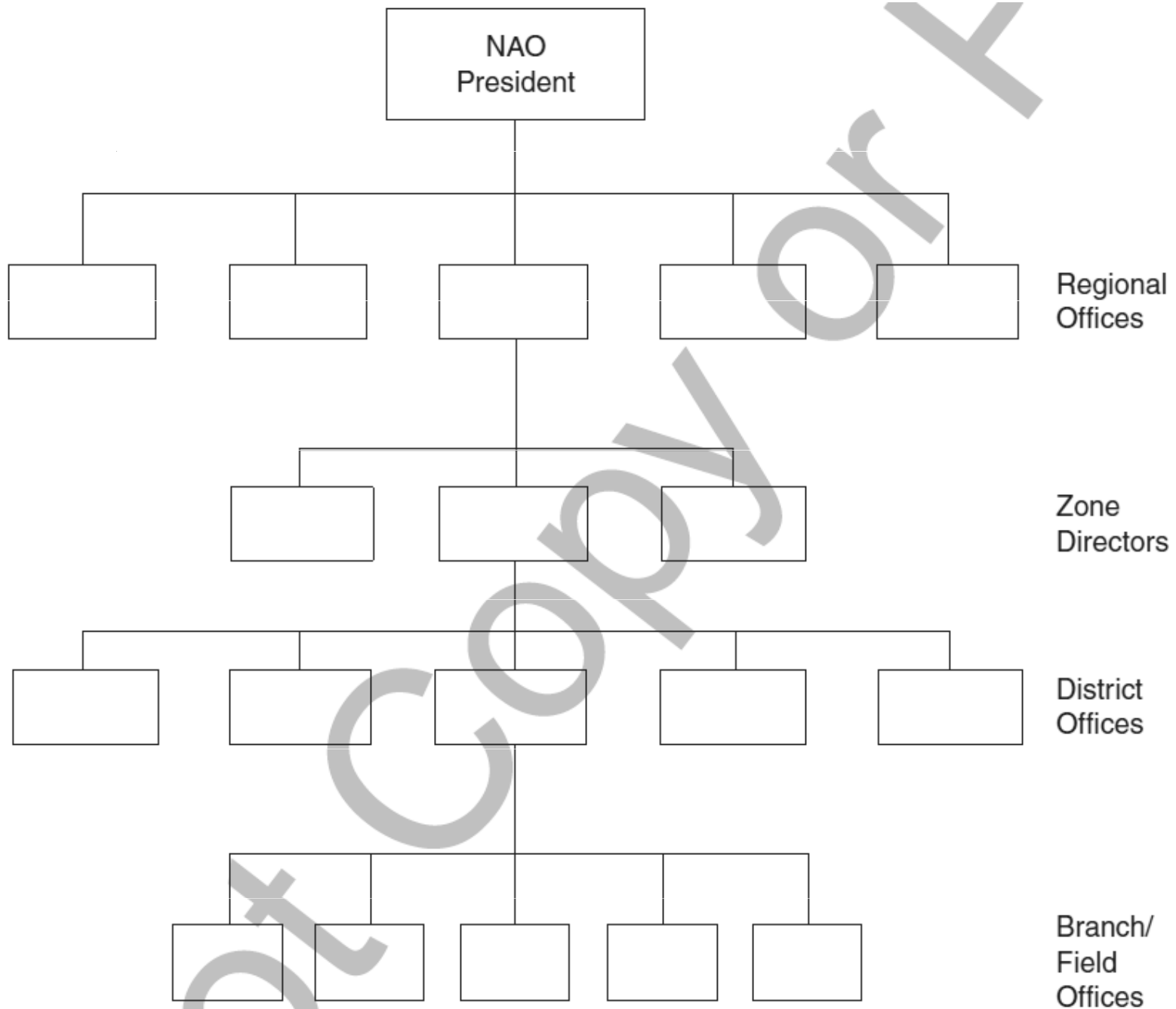
- Transitioning from a manufacturer to a service provider demands fundamental changes in every corner of the company from business processes and organization structures to organizational culture.
- It set up an ambitious goal of fivefold improvement in the order-to-hand-over process, which is not sufficient by improving customer service only.
- The improvements made by individual efforts of each division (engineering, supply chain, sales, and field operation) are incremental and not enough for radical improvements.

OTISLINE Customer Service Center (1/2)

- How were things going before OTISLINE?
- How now are things going after OTISLINE?
- What are the improvements in customer service from OTISLINE?



<http://www.instanthair.net/products/details.asp?PDID=10>



- Regional offices are geographically dispersed throughout North America.
- Zone directors have three to five district managers reporting to them.
- District managers have two to six branch/field offices reporting to them.

OTISLINE Customer Service Center (2/2)

- Before OTISLINE, the upper management had little idea on what's going on in the field. They were in the dark.
- After OTISLINE, every information on customer service is transparent and shared throughout the organization.
- Customer service quality and speed have improved.
- Customers become more satisfied and make less complaints.
- In addition to this, there are more far-reaching changes:
 - the two layers of hierarchies are eliminated,
 - and the upper management can monitor service progress and quality on a real-time basis.

Otis Order-to-Hand-Over Process

- For a new elevator to be installed, what steps is Otis taking?
- Who are involved in these process?
- Do they work independently?
 - No, for example, field operation has to be involved in proposals and sales to prevent salesmen from over-selling and over-promising.

Step in Overall Business Process

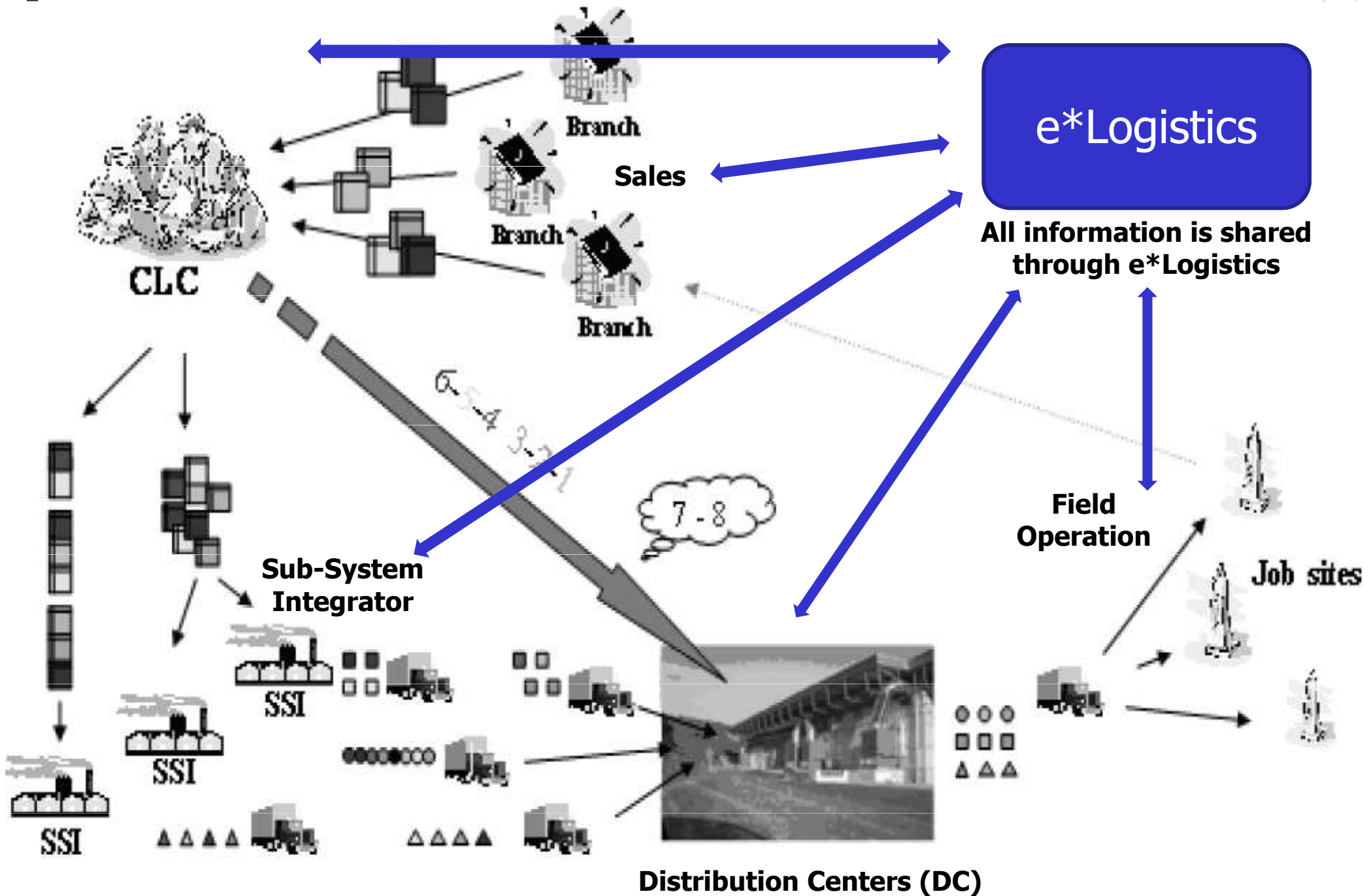
Project proposal
Sales processing
Order fulfillment
Field installation
Closing activities

Group Discussion for e*Logistics

- Three Areas
 - Project Proposal / Sales Processing
 - Order Fulfillment
 - Field Installation / Closing Activities
- Write answers to the three questions in one page.
 - How were things going before e*Logistics?
 - How now are things going after e*Logistics?
 - What are the improvements from e*Logistics?
- One best group will get a waiver for one reading brief.



New Order-to-Hand-Over Process



e*Logistics (1/4)

- e*Logistics enables real-time *information sharing and integration* between sales, CLC, SSI, DC, and field installation, facilitating seamless collaboration and coordination amongst them.
- Without collaboration and coordination, cycle time cannot be reduced and customer satisfaction cannot be improved.

e*Logistics (2/4)

- In sales proposal and processing,
 - Before e*Logistics, field installation was minimally involved in proposal and sales process,
 - which led to over-promise of salesmen and customer dissatisfaction later on.
 - After e*Logistics, sales and field installation work together more closely via tight coordination and information sharing, toward more realistic, concrete sales.

e*Logistics (3/4)

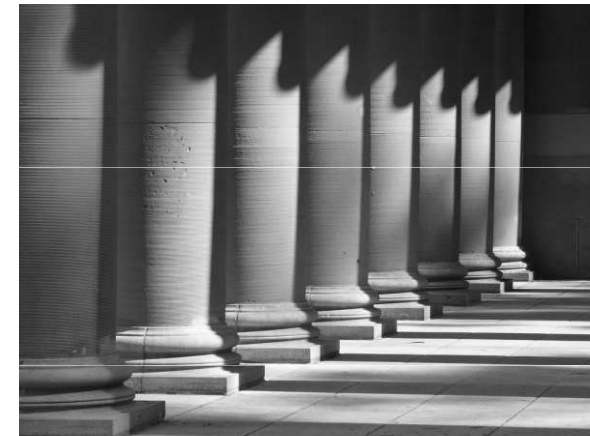
- In order fulfillment,
 - It used to be that salesmen coordinate with individual factories, which was redundant, inefficient, time-consuming
 - Now, CLC coordinates every activity with sales and SSI.
 - It used to be that “we gotta produce everything because we are a manufacturing company.”
 - Now, Otis sources its parts and components from any suppliers who can provide with higher quality and lower prices, be they Otis factories or outside vendors.

e*Logistics (4/4)

- In field installation, the push system changes to the pull system.
 - There was the push system, since the factory was the boss. (“We finished making things and we’re shipping no matter what.”)
 - A huge amount of inventory used to scatter across 35,000 job sites around the world.
 - Now, the field installation is the boss. (It used to be the factory).
 - The production and delivery are scheduled and coordinated according to customers’ timeline and requirements.

IT is a key pillar in Otis's transformation

- “The critical enabler of this information transformation was a project called the *e*Logistics* information transformation project.” (p. 7)
- “E*Logistics capabilities become a key requirement.” (p. 7)
- Bousbib's view was that ... “the e*Logistics program was the key facilitator of that information transformation.” (p. 8)



<http://fril.wordpress.com/2009/05/31/the-fifth-pillar-of-amateur-radio-hiding-in-plain-sight/>

Physical Assets to Information Assets

- “Traditionally we had focused on the management of physical assets. The next step in our evolution will be the management of information flows between all the participants ...” (p. 8)
- Citibank CEO Walter Wriston : “The information about the money is more valuable and important than the money.”
- What do they mean by “information management”? Why is it important?

Would this have been easy? (1/2)

- The case is missing one big piece of information.
- Who would be unhappy with this change?
- What would be other challenges to this radical, sea-changing transformation?
- How do you think Otis managed and overcame these challenges?
Who do you think played a key role?



<http://www.globalhealthhub.org/2011/03/28/how-is-radical-change-in-global-health-policy-possible/>

Would this have been easy? (2/2)

- People do not like to change. Even when the change benefits them, they do not want to change what they're accustomed to.
- Manufacturing would not be a fan of this change. They have to give up their crown.
- Costs in changing processes, developing and rolling out e*Logistics, and training the employees to e*Logistics are substantial.
- How was the change possible? Because the CEO demanded and led this change.

E*Logistics makes process change stick?

- “To achieve continuous transformation, the e*Logistics program makes sure the business process change *sticks*. ... With the e*Logistics program, best practices from SIP are *baked* into the organization and institutionalized to achieve that continuous transformation.” (p. 8)
- What does Mr. Di Francesco mean by this?
- The new business processes are *codified* in e*Logistics, which force the employees to change the way they work.
 - Otherwise, people will go back to the old way they got used to.

Next Week (1/2)

- IT and Competitive Strategy (II)
- Read the Wyndham International case from the coursepack and write a brief of up to 200 words by 5:30pm next Monday.
- Discussion questions
 - At which area does Wyndham choose to excel and how?
 - How does the ByRequest program support this goal?
- Brief guidelines will be available tomorrow at the class site.

Next Week (2/2)

- For the next week's class, we need two volunteers to present
 - HBS Case - "Wyndham International: Fostering High-Touch with High-Tech"
 - Harvard Business Review - "The Core Competence of the Corporation" by C.K. Prahalad and G. Hamel
- One reading brief is waived.