

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

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## Today, we will discuss ...

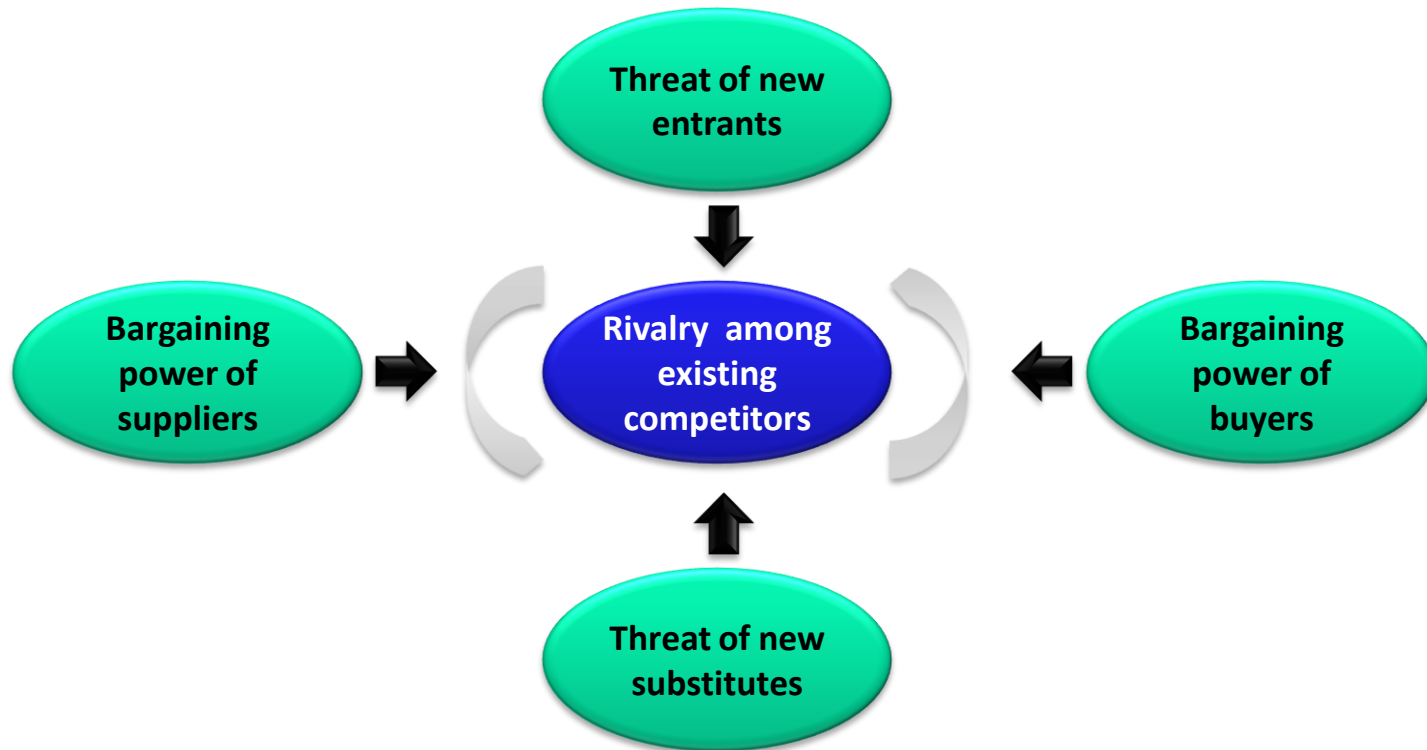
- Porter's Five Forces model
- Why and how Otis Elevator evolves from a manufacturing company to a service provider
- How OTISLINE and e\*Logistics transform Otis and support its strategic initiative

**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?



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



## 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

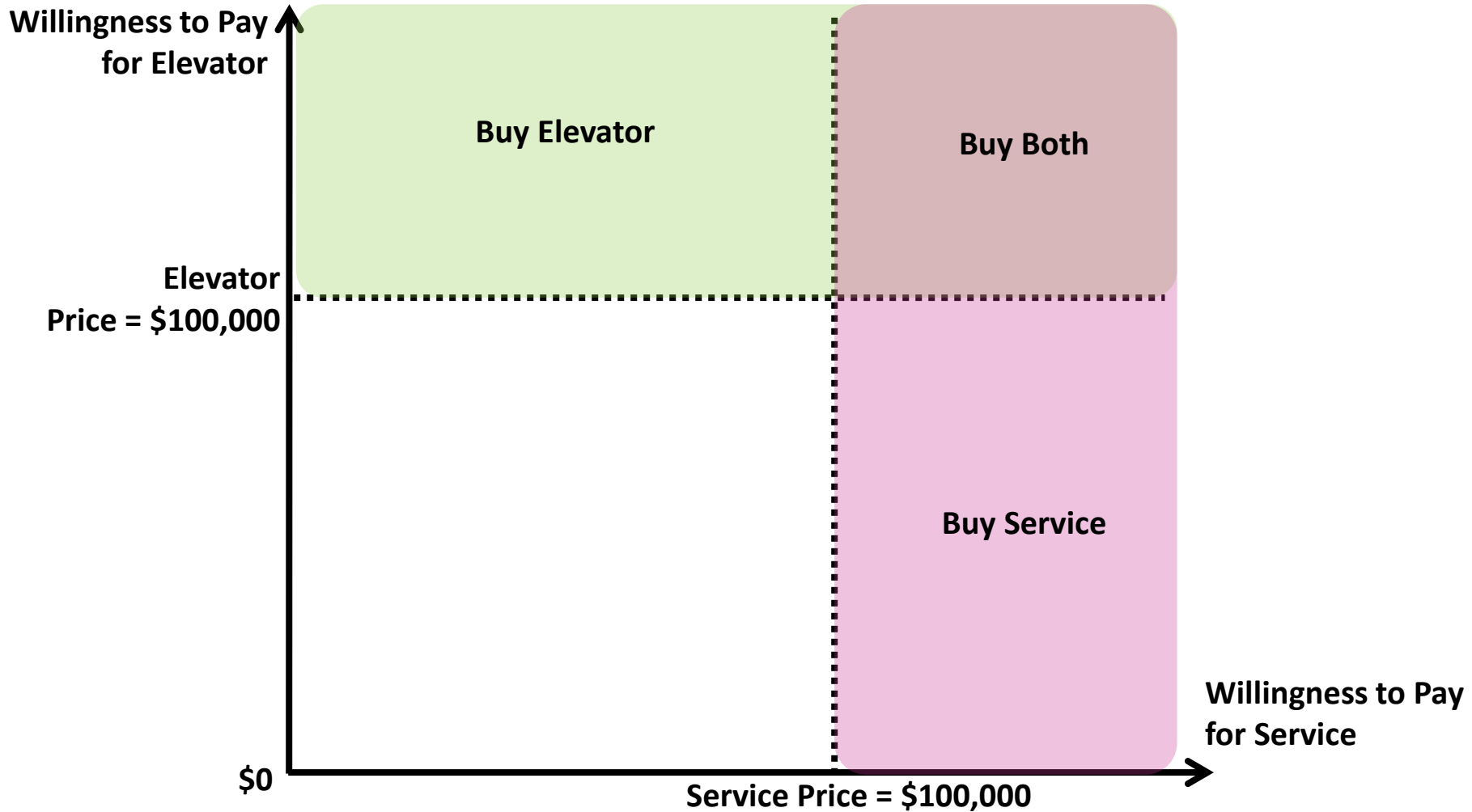
- How often do you change your doctor?
- Will Otis customers (building owners or managers) change an elevator service company often? Why or why not?
  - Changing service provides requires a substantial amount of transaction costs (or switching costs).
- If a customer doesn't change its service provide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



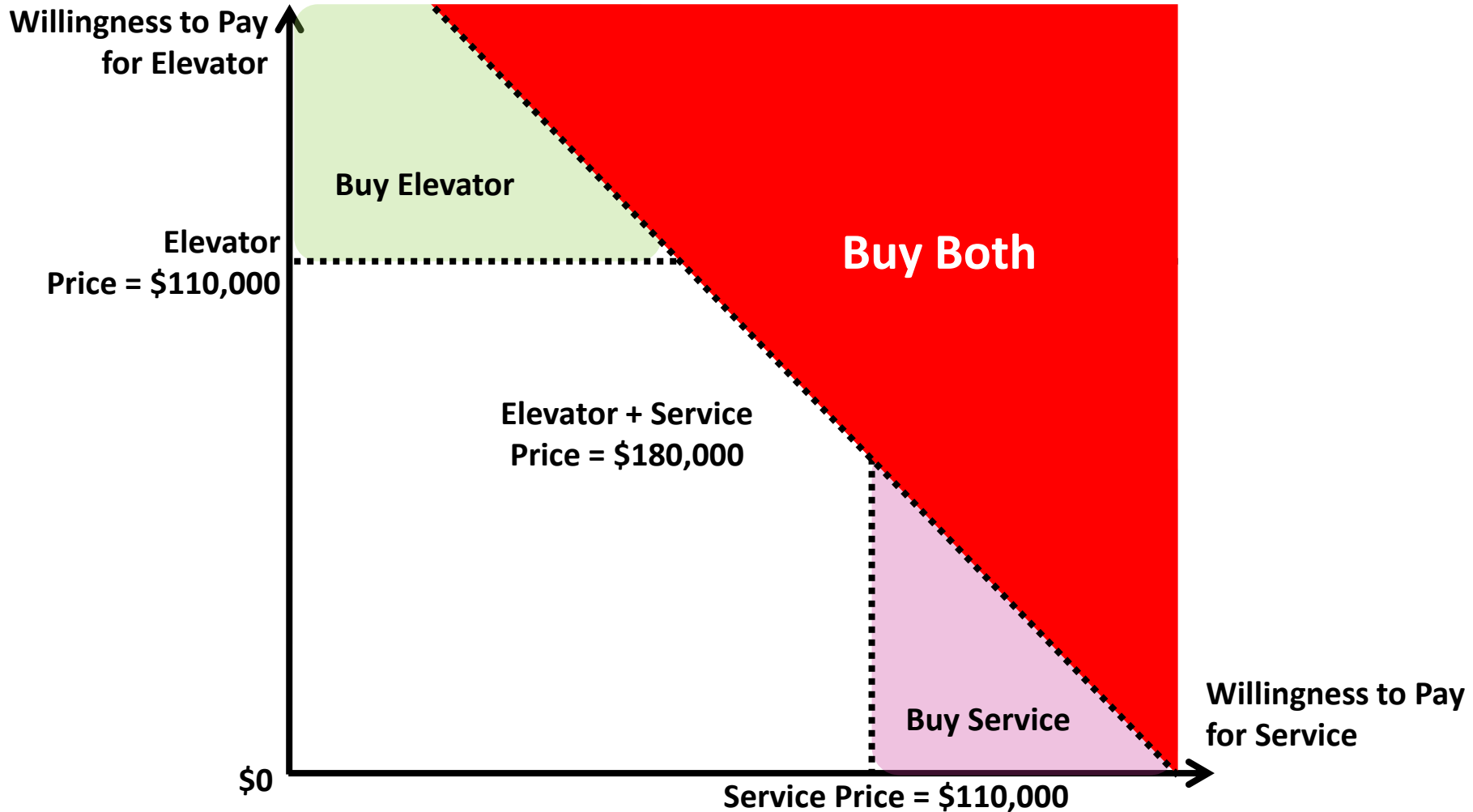
## Bundling

- 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)

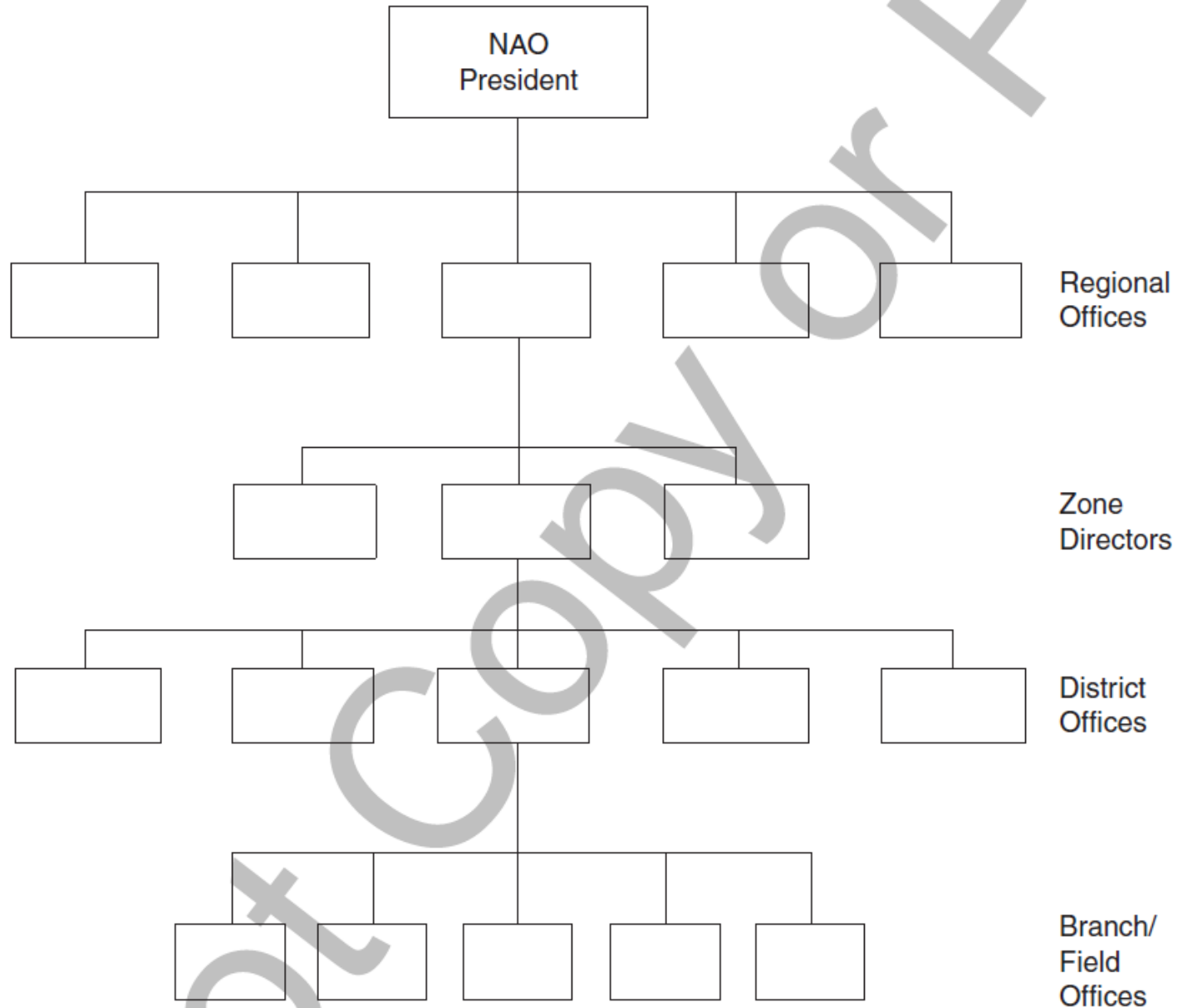
- Transitioning from a manufacturer to a service provider demands fundamental changes in every corner of the company from business processes and organization structures to organizational culture.
- It set up an ambitious goal of fivefold improvement in the order-to-hand-over process, which is not sufficient 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

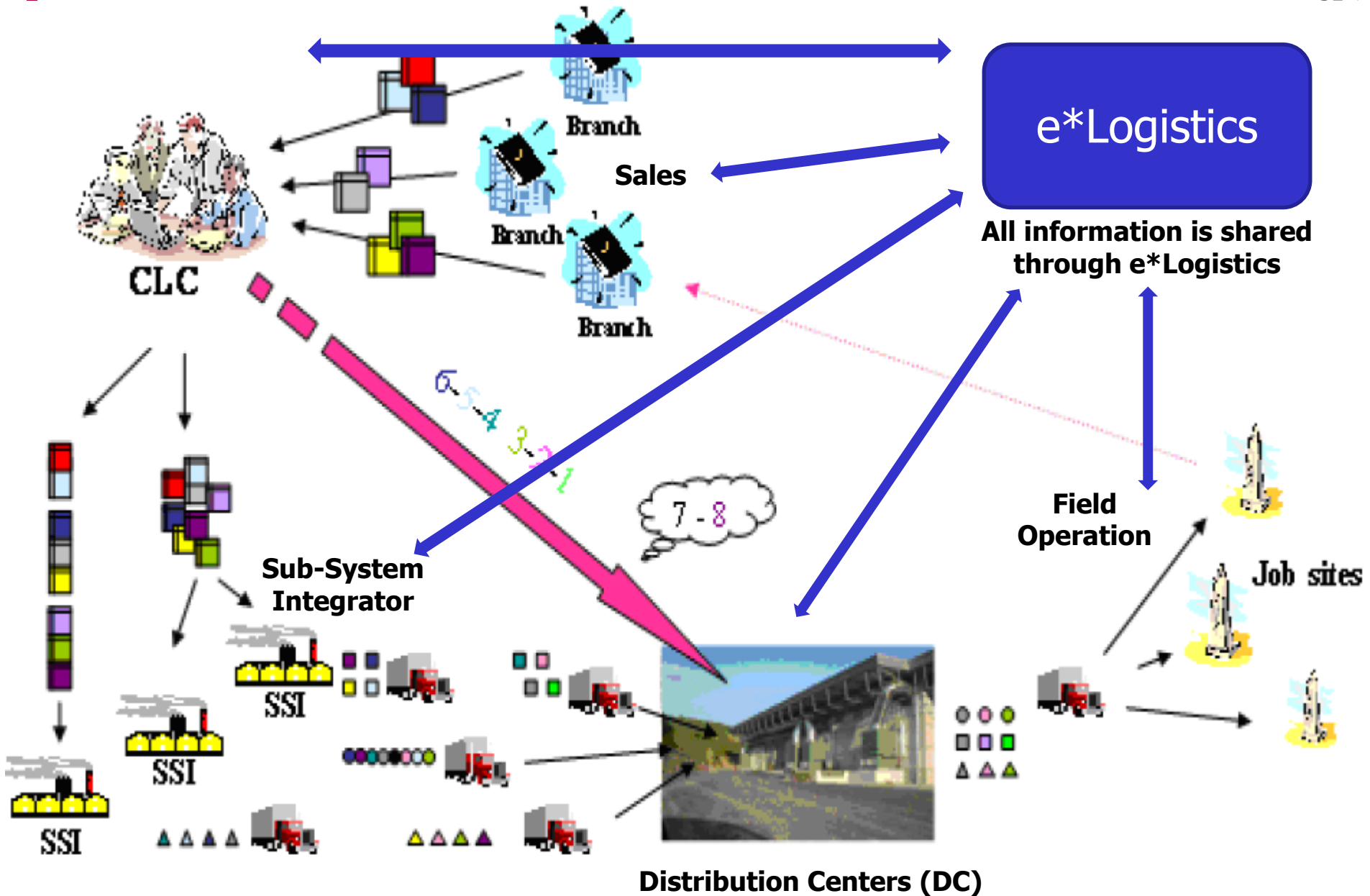
## Group Discussion for e\*Logistics

- 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.