

# Contemporary management problems

Contractual development strategies



Théo JUSTY



# Schedule (1/2)

Today

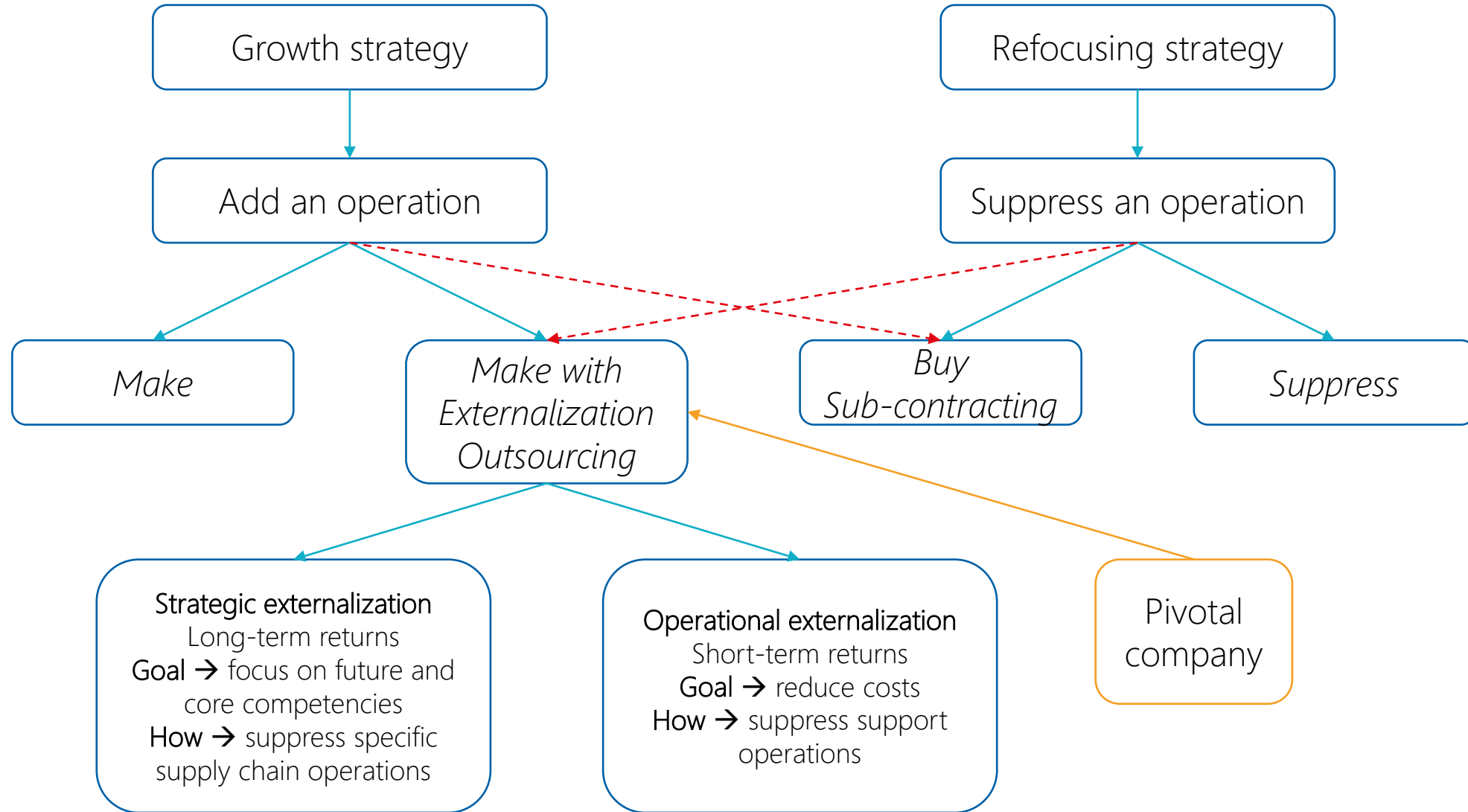
Session 1	Session 2	Session 3	Session 4
Introduction & Case study 1	Case study 2	Case study 3	Case study 4
September 28 <sup>th</sup>	October 03 <sup>rd</sup>	October 10 <sup>th</sup>	October 17 <sup>th</sup>
Correction of case study	Presentations & correction of case study	Presentations & correction of case study	Presentations & correction of case study

# Schedule (2/2)

Session 5	Session 6	Session 7	Session 8
Case study 5	Case study 6	EXAMEN	Correction
October 24 <sup>th</sup>	November 07 <sup>th</sup>	November 13-20 <sup>th</sup>	November 13-20 <sup>th</sup>
Presentations & correction of case study	Presentations & correction of case study	Presentations & correction of case study	EXAM

**Let's recap!**

# Development strategies



# Development strategies

## Externalization – Outsourcing

In-house operations are now being completed by individuals or businesses outside of the firm and not affiliated with it

- Focus on key competencies and long-term outcomes
- Partners are accountable
- Transfer of skills
- Possible to abandon operation

## Sub-contracting

When a firm hires another firm to complete a specialized operation that cannot be done internally.

- Sub-contracting does not involve permanently allocating out entire trades and departments within a firm.
- The mission is agreed upon based on a contract basis

# Development strategies

## Externalization – Outsourcing

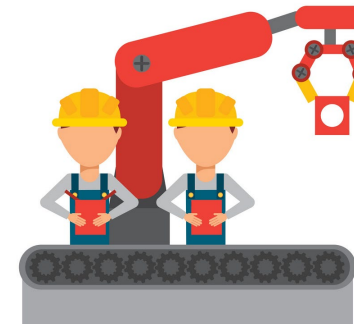
In-house operations are now being completed by individuals or businesses outside of the firm and not affiliated with it

## Operational externalization

Goal → reduce costs and consists in abandoning support operations

## Strategic externalization

Goal → reduce costs and consists in abandoning superficial operations in the value chain



# Case study 3 - Boeing

Contractual development  
strategies



# Question 1

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**Demonstrate why it is appropriate to speak of a genuine outsourcing strategy in the case of the Dreamliner and not of subcontracting**

# 1. Outsourcing strategy of Boeing

Externalization	Subcontracting
Focus on key skills	Focus on the reduction of costs
<b>Definitive abandonment</b> of the realization of a step of the production process to entrust it to an external provider	<b>Temporary use</b> of an external service provider to carry out a step in the production process
<b>Accountability</b> of the external partners	<b>Agreement</b> on the price of the goods
Skills transfer	Purchasing-sales relationship



# 1. Outsourcing strategy of Boeing

- Outsourcing is more "radical" in its relationship with the other company.
- Outsourcing is in theory irreversible as it is normally used on a permanent basis.
- The functions which are outsourced are generally functions that create little value.
- Outsourcing implies long-term partnerships, accountability, the abandonment of an activity and the transfer of skills.



# 1. Outsourcing strategy of Boeing

- Boeing sought to develop its **long-term outsourcing relationships** mainly for parts manufacturing.
- Boeing has lost control of the manufacturing process.
- The manufacturer sends teams of engineers = **transfer of skills**.
- By instituting a risk-sharing program, each partner is accountable for a component assembled later at Boeing = **accountability of the external partner**.
- Instead of being paid at the time of the delivery of the parts, the partners agree to recover their capital increased by a share of the profits once Boeing provides the planes to the customers.
- Here, it is not a purchase and sales relationship.



# 1. Outsourcing strategy of Boeing

- **Doc. 1** "Boeing has chosen General Electric and Rolls-Royce to develop the engines for its new aircraft. Advances in engine technology are expected to contribute to an 8% increase in performance for the new aircraft, which is almost a two-generation leap in technology."
- **Doc. 3** "It has recently left other companies struggling with the complicated task of processing plastic and forming composite materials" "Instead of getting paid when parts are delivered, associates agree to wait and get their capital back plus a share of the profits once Boeing delivers the planes to customers." "Analysts estimate that the company had originally planned to invest between \$8 billion and \$10 billion" "more constraints on suppliers, especially Vought Aircraft Industries, which has a plant in South Carolina that makes the aft fuselage" "Boeing still believes in its partnership outsourcing model by involving its subcontractors in risk sharing"
- **Doc. 4** "As for the industrial organization specially put in place by Boeing for the 787, consisting of entrusting the construction of the aircraft's components to subcontractors and keeping only the final assembly in its Seattle factories." "At the time, caught up with Airbus, the American manufacturer decided to change its model by abandoning manufacturing to concentrate on the design, assembly and delivery of aircraft. The group sold its industrial sites. Its objective is to reduce costs, development time and use new materials to lighten the weight of the aircraft and reduce its fuel consumption. "Each one being responsible for a component that is then assembled at Boeing."
- **Doc. 5** "A Lego airplane built in 3 days (this remains the stated ambition)" "The materials used, the technologies implemented, the way of working with suppliers and the final assembly of parts from all over the world."
- **Doc. 6** "Not only are these aircraft at the cutting edge of technology, but this launch represents for the company a model of rationalization of the manufacturing process based mainly on a policy of outsourcing" "The objective was to help the company avoid increasing labor costs"
- **Doc. 7** "With the 787, nearly 80% of which was outsourced, Boeing intended to validate this organization, which allowed it to reduce its own financial and industrial risk by sharing it"

## Question 2

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**Is this an operational or strategic outsourcing in the case of Boeing?**

**Justify**

## 2. Operational and strategic outsourcing

Operational outsourcing	Strategic outsourcing
Searching for reducing direct operating costs	Focus on the core skills
Abandonment of support functions	Refocusing and discontinuing activities
Short-term return on investment	Long-term return on investment



## 2. Outsourcing strategy of Boeing

- The objective was to help the company escape rising labor costs and reduce its own financial risk = **seeking to reduce direct operating costs**
- The process consists in entrusting the construction of the aircraft's components to subcontractors and keeping only the final assembly in its Seattle plants = **abandonment of support activities**
- The objective of reducing development time = **short term return on investment**





## 2. Operational and strategic outsourcing

- **Doc. 1** "Boeing has chosen General Electric and Rolls-Royce to develop the engines for its new aircraft. Advances in engine technology are expected to contribute to an 8% increase in performance for the new aircraft, which is almost a two-generation leap in technology."
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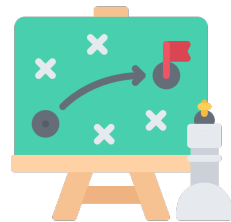
## Question 3

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**To what extent can we speak of a "refocusing" process?**

# Refocusing process

- **Refocusing** = the abandonment by a company of one or more areas of activity or of certain product lines.
    - **Business / vertical refocusing** = the company focuses on a limited number of business lines
    - **Market / horizontal refocusing** = the company focuses on a limited number of markets or market segments
- It is a refocusing process because Boeing chooses to concentrate on the design, assembly and marketing of aircraft (vertical refocusing)



# Refocusing process

- **Doc. 1** "Boeing chose General Electric and Rolls-Royce to develop the engines for its new aircraft" **Doc. 3** "The wings and main fuselage sections were supposed to arrive from outside suppliers fully adapted, to be assembled directly on the aircraft" **Doc. 4** "Boeing was looking to develop its subcontracting relationships" **Doc. 5**
- **Doc. 3** "The wings and main fuselage sections were supposed to arrive from outside suppliers fully adapted, to be then assembled directly on the aircraft" "Boeing sought to develop its long-term subcontracting relationships primarily for parts manufacturing" "Boeing subcontracted the design and construction of the wings [...]. It also let other companies struggle with the complicated task of plastic processing and composite material formation."
- **Doc.3** "For example, in early July, Boeing bought out Vought's rear fuselage plant. [...] Boeing's purchase of Vought's operations was crucial. The company thus redrew the lines of its partnership model and reintegrated an essential part of its business"]
- **Doc. 4** "retain only final assembly in its Seattle plants." "This company [...] provides pre-assembly of the 787 fuselage" "Caught up by Airbus, the American manufacturer decided to change its model by abandoning manufacturing to concentrate on the design, assembly and delivery of aircraft. The group then sold its industrial sites.
- **Doc. 7** "The aircraft manufacturer refocusing on its core business: design, final assembly and marketing"

## Question 4

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**Using transaction cost theory, propose an assessment of the risks of this  
outsourcing strategy**

## 4. Transaction cost theory

- Transaction cost theory developed by Coase and Williamson considers that any transaction between two partners creates specific costs.
- These costs are important when one is in the presence of highly specific assets and a high frequency of transactions.
- The theory recommends that the firm resorts to vertical integration to avoid resorting to the market.
- Transaction costs = cover ex ante and ex post costs
  - **Ex-ante costs** are the costs of prospecting for and selecting partners and the costs of negotiating the contract
  - **Ex-post costs** are related to the proper execution of the contract and the costs of the eventual renegotiation
  - **Direct operating costs** are production costs of a good or service

## 4. Transaction cost theory

- Do or Have it done?
    - If Transaction costs  $>$  Internal costs (fixed + variable costs)] then **Do**
    - If Transaction costs  $<$  Internal costs (fixed + variable costs)] then **Have it done or Do-with**
  - How to evaluate transactional costs?
    - Measurement of the cost related to managing an exchange relationship between 2 independent companies or evaluation of the risks of the exchange with an external partner
    - proximity to the core business - complexity of exchanges - few suppliers
- The risks of this outsourcing strategy are the loss of proximity to the core business, the complexity of the exchanges generated and the lack of supplier diversity.

## 4. Transaction cost theory

- **Doc. 1** "Boeing chose General Electric and Rolls-Royce to develop the engines for its new aircraft".
- **Doc. 3** "The wings and main fuselage sections were supposed to arrive from outside suppliers fully adapted, to be then assembled directly on the aircraft"
- **Doc. 4** "Changing its model by abandoning manufacturing to focus on aircraft design, assembly and delivery" "It designed an aircraft made of more than 50% composite materials, with a carbon fiber fuselage. The aircraft manufacturer also decided to entrust 70% of its manufacturing to 43 subcontractors in 25 countries. Each subcontractor is responsible for a component that is then assembled at Boeing.



## Question 5

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**Referring to the analysis grid of the "pivot" role, what are the mistakes made by Boeing in the case of the Dreamliner?**

## 5. The mistakes of Boeing

### **Insufficient coordination**

*"Start-up problems, shortages of simple parts such as nuts and bolts, and a labor strike at Boeing last year are responsible for the delays and, like a domino effect, have intensified the pressure on the most financially fragile suppliers".*

### **Controlling a posteriori**

*"Boeing lost control of the manufacturing process" "by exempting itself from close control over the work of its suppliers"*

### **Sanction = counter-productive**

*"By instituting a risk-sharing program in which suppliers would also be Boeing's partners."*

### **Allocation of value = counter-productive**

*"Instead of getting paid when the parts are delivered, the partners agree to wait and get their capital back plus a share of the profits once Boeing delivers the planes to the customers."*



# 5. The mistakes of Boeing

Boeing's main mistake is to have done mainly operational outsourcing and not enough strategic outsourcing  
→ no reflection on the core business or the return on long-term investment

**Doc. 3** "Suppliers were overburdened to install all of the systems" "Boeing lost control of the manufacturing process" "by relinquishing close control over the work of its suppliers" "could we have organized our production more intelligently? Yes" "By instituting a risk-sharing program in which the suppliers would also be Boeing's partners." "Boeing outsourced the design and construction of the wings, one of the most harrowing parts of the airplanes [...] It also left other companies "to struggle with the complicated task of plastic processing and composite material formation."

**Doc. 4** "The group then divested industrial sites" "The parts sent to Boeing had to be revised. To remedy this, the manufacturer sent teams of engineers to Italy and Japan, hoping that this would not cause delays." "Each one is responsible for a component that is then assembled at Boeing. This system is fragile, because the slightest failure can disrupt it" "shortage of rivets"

**Doc. 6** "Vought [...] had to invest twice as much as it had envisaged to carry out its work on the Dreamliner"



## Question 6

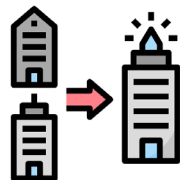
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**What were Boeing's strategic shifts to limit the consequences of this failure?**

**How can they be qualified in terms of growth strategy?**

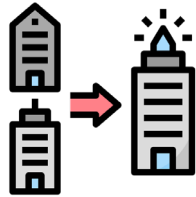
## 6. Strategic shifts of Boeing

- Boeing has bought out 50% of its major suppliers (e.g. Global Aeronautica & Vought)
- They will have to make a list of payments to be made including penalties to be paid to customers.
- They had to inject billions of dollars to catch up on the delays.
- They have had to take emergency action several times, notably in Japan and Italy, sending Boeing engineers to the site.
- They have to take over part of the workload in its factories.
- Boeing must build a second assembly line



## 6. Strategic shifts of Boeing

### Internal growth & integration



*Boeing's decision to reinstate this task would give it greater control*

### Patrimonial growth



*"Boeing must accelerate and probably build a second assembly line to be able to deliver to its customers in a reasonable time frame."*

### External growth



*"So much so that Boeing announced on March 28 that it was buying 50% of one of its main suppliers, Global Aeronautica."*

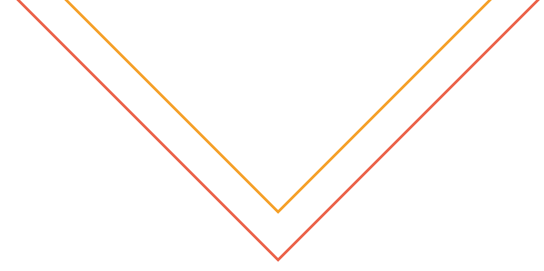
## 6. Strategic shifts of Boeing

- **Doc. 3** "Boeing's purchase of Vought's operations was crucial. According to McNerney, the company redrew the lines of its partnership model and reintegrated an essential part of its business."
- **Doc. 4** "So much so that Boeing announced on March 28 that it was buying 50% of one of its major suppliers, Global Aeronautica. This company, in which Italy's Alenia holds the remaining 50 percent, provides pre-assembly of the 787's fuselage." "The cursor has been moved upstream. Boeing has taken control of certain industrial activities. In March 2008, it became a shareholder, along with Alenia, in Global Aeronautica, a subcontractor for fuselage pre-assembly. In July 2009, Boeing took over a U.S. plant from the equipment manufacturer Vought, which was considered essential to the program because it specializes in the manufacture and assembly of fuselage parts."
- **Doc. 6** "Boeing buyout of troubled supplier Vought for \$1 billion" "They're going to have to make a list of payments to be made including penalties to suppliers who performed on time" "Boeing said it would pay the plant \$580 million and waive Vought's repayment of previous advances." "Boeing's decision to reinstate the task would give it greater control [...]. But [...] the acquisition of Vought will increase Boeing's fixed costs"
- **Doc. 7** "by buying out the site of one of its subcontractors" "Boeing had to take emergency action several times, notably in Japan and Italy, by sending in-house engineers and injecting billions of dollars to make up for the drifts and take over some of the workload in its factories" "will spend \$580 million to acquire the Charleston-based site" "Boeing must speed up and probably build a second assembly line to be able to deliver to its customers within a reasonable time frame"

**Any question?**



**Who are the 2 groups  
for next week?**



# Contemporary management problems

Case study 3 - Boeing

**Thank you**