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**BLAB**

**HANDOUTS**

**PRINCIPLES OF  
MANAGEMENT  
-GENERAL-**

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# **MANAGEMENT GENERAL**

## **WEEK 1**

### **Part 1 – Horizontal Boundaries**

Horizontal boundaries means: how much and how many types of products/services firm offers.

So there are two dimensions:

Quantity = how much of one product the firm produces.

Variety = how many different products or services the firm offers.

This matters because firm growth is not automatically good. Growth is good only if it creates an advantage: lower cost, better use of resources, more learning, stronger market position. The course frames this through four drivers: scale, scope, learning, and diversification.

The Tesla vs Ferrari example is useful. Ferrari has low quantity and focused variety: luxury sports cars. Tesla has high quantity and expanding variety: several car models, energy storage, solar, robots, etc. Same broad industry, but completely different horizontal boundaries, cost structures, and strategies.

The exam logic is:

Do not ask “is the firm big?” Ask “what advantage does size or variety create?”

### *Part 2 – Economies of Scale*

Economies of scale exist when average cost decreases as output increases.

The key formula is:  $AC = FC / Q + VC$

Where:

AC = average cost per unit

FC = total fixed cost

Q = quantity produced

VC = variable cost per unit

The intuition is simple: if fixed costs are spread over more units, each unit carries a smaller share of those fixed costs. This is called fixed-cost absorption.

Example: suppose fixed cost is €200 and variable cost is €2.

If the firm produces 60 units:

Total cost =  $200 + 2 \times 60 = 320$

AC =  $320 / 60 = 5.33$

If it produces 80 units:

Total cost =  $200 + 2 \times 80 = 360$

AC =  $360 / 80 = 4.5$

Notice the important point: total cost increased from 320 to 360, but average cost fell.

That is exactly economies of scale. Many students confuse total cost and average cost.



The slide example makes this point through capacity utilization: same plant, same fixed cost, same variable cost, but higher utilization lowers cost per unit.

### *Part 3 – Three Types of Scale Economies*

The slides distinguish three mechanisms.

#### 1. Fixed-cost absorption

This is the basic one. If you have fixed costs like factories, machines, R&D, advertising, or training, producing more units spreads those fixed costs.

The logic is: more  $Q \rightarrow$  lower  $FC/Q \rightarrow$  lower  $AC$

This is why industries with high fixed costs often reward large volume.

#### 2. Lower variable cost in larger plants

Sometimes big plants are not only spreading fixed costs. They may also produce each unit more efficiently.

For example:

- \* better purchasing terms
- \* better use of labor
- \* better materials handling
- \* less waste
- \* more specialized machinery

So variable cost per unit may fall from €2 to €1.80, as in the slide example comparing a small and a large plant.

#### 3. Fixed costs grow less than proportionally

A larger plant may cost more in absolute terms, but not proportionally more.

Example:

Small plant:

- \* capacity 100
- \* fixed cost 200

Large plant:

- \* capacity 150
- \* fixed cost 280

Capacity rises by 50%, but fixed cost rises by only 40%. So fixed cost per unit falls. That is another source of scale economies.



#### *Part 4 — U-shaped vs L-shaped Cost Curve*

##### U-shaped curve

In the traditional view, average cost first falls, reaches a minimum, then rises.

Left side:

- \* economies of scale
- \* AC decreases

Bottom:

- \* optimal firm size

Right side:

- \* diseconomies of scale
- \* AC increases

The idea is that after some point, the firm becomes too big: coordination problems, bureaucracy, monitoring problems, incentive issues, congestion, etc.

So the U-shaped curve says:

small is inefficient, medium is optimal, too large is inefficient.

##### L-shaped curve

The L-shaped curve is more realistic in the long run.

Average cost falls until the firm reaches Minimum Efficient Scale, or MES. After that, costs stay roughly flat.

This means a firm does not need to be the biggest firm in the market. It only needs to reach MES to compete efficiently.

The key exam implication:

If MES is small relative to market demand, many firms can coexist.

If MES is huge relative to market demand, the market becomes concentrated because only a few firms can reach efficient scale.

The U-shape is a better approximation of short-term firm costs, while the L-shape better describes long-term firm costs.

#### *Part 5 — Short Run vs Long Run*

In the short run, plant size is fixed. The firm cannot redesign the factory immediately. It can only adjust variable inputs like labor, overtime, materials, and operating intensity.

That is why short-run costs can become U-shaped. If demand rises suddenly, the firm may use overtime, rush orders, extra shifts, or inefficient capacity utilization.

In the long run, the firm can choose a different plant size or technology. So the long-run average cost curve is the lower envelope of different short-run average cost curves.

This means: at each output level, the firm chooses the technology with the lowest average cost.



*Part 6 — Flexible vs Rigid Technology*

A flexible technology has:

- \* low fixed cost
- \* high variable cost
- \* good for low volume

A rigid/automated technology has:

- \* high fixed cost
- \* low variable cost
- \* good for high volume

At low output, flexible is better because you do not produce enough units to absorb the high fixed cost of automation.

At high output, rigid is better because the low variable cost dominates.

The key concept is the crossover point. Before the crossover point, flexible technology has lower AC. After the crossover point, rigid technology has lower AC.

Exam trap:

Rigid technology is not always better. It becomes better only if expected volume is high enough.

*Part 7 — Capital-intensive vs Labor-intensive Production*

Capital-intensive production means fixed productive capital is expensive: factories, machines, equipment, automation.

Example: semiconductor fabs.

These industries often have strong scale economies because the firm must spread huge fixed costs over large volumes.

Labor-intensive production means variable cost dominates.

Example: fashion companies.

In labor-intensive production, average cost may vary less with volume because costs rise more directly with output.

But careful: labor-intensive firms can still have scale economies if labor itself becomes fixed. For example, consultants, banks, or R&D teams may have salaried workers whose cost must be spread over projects.

*Part 8 — Extent of the Market*

This comes from Adam Smith: the division of labor is limited by the extent of the market.

Meaning: specialization is possible only if the market is large enough.

If demand is tiny, you need generalists. If demand is huge, you can justify specialists.



Example:

A general surgeon can handle many common conditions. Lower training cost, lower procedure cost, suitable for simple cases.

A thoracic surgeon specializes in complex heart/lung surgeries. Higher training cost, higher procedure cost, but much better outcomes for complex cases.

The specialist makes economic sense only when there is enough patient volume.

So the deep idea is:

Large markets allow specialization. Specialization increases productivity. Productivity lowers cost. Lower cost can expand the market further.

### *Part 9 – Multi-plant Economies*

A firm can serve demand from one big plant or multiple smaller plants.

One big plant gives strong scale economies because production is concentrated.

Multiple plants may reduce transportation costs because customers are closer.

So the firm faces a trade-off:

single large plant = stronger production scale economies

multiple plants = lower transportation/distribution costs

The car industry is the example. Cars are expensive to transport because they are large, heavy, awkward, and require careful handling. But car production also has strong plant-level scale economies because of automation. So car companies need large plants, but geographically dispersed across markets.

### *Part 10 – Economies of Density*

Economies of density are cost savings from serving geographically concentrated customers.

This is slightly different from normal scale.

Scale: more output.

Density: more customers close together.

Example: delivery in a dense city is cheaper per customer than delivery across scattered villages.

Why? Because:

- \* shorter routes
- \* lower transportation cost
- \* better utilization of trucks/workers
- \* less idle time

But the slides add an important strategic point: density attracts competition. If an area is dense and profitable, rivals want to enter too.

Walmart is a good example. It initially targeted small towns and rural areas with less competition, then clustered stores around distribution centers. This created logistics efficiency, purchasing power, standardization, and low prices.



### *Part 11 – Purchasing Power*

Large firms may get better input prices because they buy in bulk.

But the slide asks: why?

Not just “because they are big.”

The reasons are:

1. Selling to one large buyer is less costly for suppliers.
2. Big buyers are more price-sensitive and negotiate harder.
3. Suppliers value stable business flow.

Small firms can partially overcome this through purchasing alliances or specialization.

For example, a niche dog-food retailer may have more purchasing power in dog food than a large general supermarket.

### *Part 12 – Advertising Economies*

Advertising economies are tricky.

The slide gives this logic:

Advertising cost per actual consumer = cost of sending the message / actual consumers generated

This can be decomposed into: cost per reach and conversion rate

Big campaigns spread fixed advertising costs over many people, so cost per reach falls.

But bigger audiences are less precise. More people reached may not be interested, so conversion rate may fall.

Therefore:

Scale lowers cost per reach.

Scale may reduce conversion quality.

That is why advertising cost per actual consumer can become U-shaped.

Coca-Cola solves this through distribution. It uses huge reach, but conversion does not collapse because Coca-Cola is available almost everywhere. If the ad creates desire, the product is easy to buy.

Red Bull uses the opposite strategy: smaller, more selective reach, high CPR, but high conversion among the exposed audience.

### *Part 13 – R&D Economies*

R&D has strong fixed costs.

You need:

- \* labs
- \* scientists
- \* prototypes
- \* patents
- \* testing
- \* technical infrastructure



These costs are often large before one unit is sold.  
Large firms can spread R&D cost across many products or large output.  
Small firms can compete by specializing in one stage of R&D or using new approaches that reduce resource needs. The slides mention examples like specialized drug lab work or smaller AI models.

#### *Part 14 – Cube-Square Rule*

This is the mathematical scale economy.

Volume grows with length cubed:  $L^3$

Surface area grows with length squared:  $L^2$

If cost depends on surface area but capacity depends on volume, bigger containers are cheaper per unit of capacity.

Example: tanks, pipelines, warehouses, containers.

That is why larger physical structures often have lower cost per unit of capacity.

#### *Part 15 – Inventory Economies*

Firms keep inventory to avoid stock-outs.

Inventory is costly because it requires:

- \* storage space
- \* handling
- \* security
- \* climate control
- \* capital tied up
- \* risk of obsolescence

But larger firms can hold proportionally less inventory because uncertainty pools statistically.

The key principle: inventory needs grow with  $\sqrt{n}$ , not  $n$

So if sales increase 4 times, required safety inventory may increase only about 2 times.

That lowers inventory cost per unit sold.

#### *Part 16 – Diseconomies of Scale*

Beyond a certain size, bigger may create problems.

Sources:

- \* higher labor costs
- \* specialized resources spread too thin
- \* coordination problems
- \* incentive problems
- \* bureaucracy
- \* slow information flow
- \* weaker innovation incentives



The deepest point: diseconomies often come not from production technology, but from organization.

A firm becomes harder to manage as it grows.

So scale is not only an operations issue. It is also an organizational design issue.

## Part 2 – Economies of Scope

Now we move from: “Should we produce MORE?”

to: “Should we produce DIFFERENT products together?”

This is the logic of economies of scope.

### 1. What Economies of Scope Actually Mean

Economies of scope exist when:

producing multiple products together is cheaper than producing them separately.

The key idea is sharing.

Instead of each product having:

- \* its own factory
- \* its own trucks
- \* its own brand
- \* its own R&D
- \* its own distribution
- \* its own employees

...multiple products use the same resources.

The slide gives the formal condition:  $TC(Q_x, Q_y) < TC(Q_x, 0) + TC(0, Q_y)$

Meaning: the total cost of producing X and Y together is lower than producing X and Y separately.

### 2. Scale vs Scope (MOST IMPORTANT DISTINCTION)

Economies of Scale

- \* more of the SAME product
- \* cost falls because output increases

Example: Coca-Cola producing more Coke

*Economies of Scope*

- \* DIFFERENT products together
- \* cost falls because resources are shared

Example:

- \* Yamaha producing motorcycles, scooters, boats, engines using related engineering capabilities

### 3. Sources of Economies of Scope

Four major sources:

1. Shared fixed costs
2. Shared distribution channels
3. Shared brand/reputation
4. Shared knowledge and capabilities

We now unpack each deeply.



#### 4. *Shared Fixed Costs*

This is the most intuitive source.

Suppose a company owns:

- \* trucks
- \* warehouses
- \* factories
- \* software
- \* engineers
- \* customer service infrastructure

If these assets have unused capacity, adding products may cost very little.

The fixed resource already exists.

So the incremental cost of the second product is small.

Shared Fleet Example:

A company owns trucks, instead of using them only for groceries it also uses them for:

- \* packages
- \* furniture
- \* different time windows

The same fleet serves multiple products/services.

Deep logic: the trucks are indivisible assets with excess capacity.

If three separate companies each needed their own fleet:

- \* duplication of fixed costs
- \* lower utilization
- \* inefficiency

This is one of the deepest ideas in management: unused capacity creates scope opportunities.

#### 5. *Excess Capacity Is Central*

Economies of scope often come from:

- \* idle assets
- \* underused knowledge
- \* spare distribution capacity
- \* underutilized customer relationships

The firm asks: “What else can we push through this system?”

That question explains:

- \* Amazon entering cloud computing
- \* Apple expanding ecosystem products
- \* banks selling insurance
- \* airlines selling loyalty programs

#### 6. *Yamaha — Why It's a Scope Case*

The Yamaha slides are very important because they show that scope is not randomness.



Yamaha produces:

- \* motorcycles
- \* scooters
- \* boats
- \* watercraft
- \* engines
- \* robotics
- \* musical instruments
- \* mobility products

At first this seems unrelated.

But the real shared capabilities are:

- \* metallurgy
- \* precision engineering
- \* motors
- \* acoustics
- \* manufacturing
- \* design
- \* materials expertise

The slides explain that after WWII Yamaha reused wartime production machinery and metallurgical expertise to enter motorcycles.

That is NOT random diversification.

It is capability redeployment.

This is extremely important.

### *7. Relatedness Matters*

Scope economies require: underlying related capabilities.

This is why:

- \* Apple can make phones, watches, laptops
- \* but not necessarily pharmaceuticals.

The deeper connection may be:

- \* technology
- \* design
- \* logistics
- \* customers
- \* manufacturing
- \* knowledge
- \* channels

NOT product similarity alone.

### *8. Shared Distribution Channels*

Another major source of scope.

Suppose a supermarket already has:

- \* shelves
- \* delivery systems
- \* customer traffic
- \* checkout systems

Adding another product line may cost very little.



This is why retailers sell:

- \* snacks
- \* drinks
- \* cosmetics
- \* electronics
- \* household products

The distribution infrastructure is shared.

### *9. Umbrella Branding*

Umbrella branding means: one brand supports many products.

Example:

Samsung:

- \* TVs
- \* phones
- \* appliances

Why is this valuable?

Because brand building is expensive:

- \* advertising
- \* trust creation
- \* awareness
- \* reputation

If consumers already trust Samsung:  
new Samsung products are easier to launch.

The reputation transfers.

This lowers:

- \* marketing cost
- \* customer uncertainty
- \* adoption friction

That is an economy of scope.

### *10. But Umbrella Branding Can FAIL*

Example:

Lexus separated from Toyota in the U.S. market.

Why? Because:

- \* Toyota = reliability + affordability
- \* Lexus = luxury + prestige

The brand images conflict.

If the same brand tries to mean:

- \* cheap
- \* premium
- \* luxury
- \* mass market

...it may weaken all positioning.

This is called: brand dilution.



### *11. Corporate Brand vs Product Brand*

The slides mention pharmaceuticals.

Patients know:

- \* Advil
- \* Viagra
- \* Prozac

...not necessarily Pfizer or Bayer.

Meaning: sometimes the product brand matters more than the corporate brand.  
So umbrella branding is not universally powerful.

### *12. Economies of Scope in R&D*

Research in one area may help another area.

Shared benefits include:

- \* common infrastructure
- \* shared discoveries
- \* technological spillovers
- \* cross-pollination of ideas
- \* reusable platforms

Example:

3M technologies used across:

- \* adhesives
- \* medical products
- \* industrial products
- \* office products

The same scientific knowledge feeds many businesses.

### *13. Cross-Pollination*

An innovation developed for one product may unexpectedly help another.

Example:

AI research:

- \* search engines
- \* voice assistants
- \* recommendation systems
- \* autonomous driving

all benefit from overlapping knowledge.

### *14. Why Scope Can Also Create Problems*

Sometimes firms underuse innovations because: new products threaten existing businesses.

This is called: cannibalization fear.

Example: Google had strong AI capabilities before ChatGPT.

But aggressively deploying conversational AI could threaten:

- \* traditional search advertising
- \* existing business models



Large diversified firms sometimes protect old products instead of fully exploiting new technologies.

This is a hidden diseconomy of scope.

#### *15. Deep Strategic Logic of Scope*

Economies of scope are fundamentally about: leveraging underused resources.

A resource becomes strategically powerful when:

- \* it can be reused
- \* across multiple products
- \* at low incremental cost.

The most powerful firms often have:

- \* platforms
  - \* ecosystems
  - \* reusable capabilities
- not just big factories.

#### *16. Scope and Competitive Advantage*

Scope can create:

- \* lower cost
- \* faster expansion
- \* stronger market power
- \* barriers to entry

Why? Because a competitor may need to recreate:

- \* multiple capabilities
  - \* distribution systems
  - \* brands
  - \* customer networks
- all separately.

#### *17. But More Products ≠ Better*

Diversification without shared synergies creates:

- \* complexity
- \* bureaucracy
- \* coordination problems
- \* weak strategic focus

So: more products only help if there are real synergies.

This will connect directly to diversification later.

#### *18. Airport Example*

The airport slide is likely meant to provoke scope reasoning.

Airports use:

- \* terminals
- \* runways
- \* staff
- \* logistics
- \* security systems



for:

- \* passenger flights
- \* cargo
- \* retail
- \* restaurants
- \* lounges
- \* parking
- \* advertising

One infrastructure supports many revenue streams.  
Again: shared assets.

### *19. The Deepest Difference Between Scale and Scope*

Scale asks: “How efficiently can we do THIS activity repeatedly?”

Scope asks: “How many activities can benefit from the SAME resources?”

### *21. Most Likely MCQ Traps From This Section*

Trap 1

A firm producing many products automatically has economies of scope.

**✗** False.

Products must share resources/capabilities.

Trap 2

Economies of scope come from high production volume.

**✗** False.

That is scale.

Trap 3

Umbrella branding is always beneficial.

**✗** False.

Conflicting brand images may create diseconomies.

Trap 4

Yamaha is unrelated diversification.

**✗** Misleading.

Products differ, but underlying capabilities overlap.

Trap 5

Shared R&D means identical products.

**✗** False.

Knowledge can transfer across different products.



### Part 3 – The Learning Curve

We now move to a different source of advantage.

Economies of scale depend on: current output.

The learning curve depends on: cumulative experience over time.

This distinction is absolutely central.

#### 1. What the Learning Curve Means

The basic idea is: the more a firm does something, the better it becomes at doing it.

As cumulative production increases:

- \* workers improve
- \* processes improve
- \* coordination improves
- \* mistakes decrease
- \* design improves
- \* routines become smoother

Result: average cost falls over time.

But unlike scale economies: this is NOT mainly about spreading fixed costs.

It is about:

- \* experience
- \* know-how
- \* organizational learning.

#### 2. Learning vs Scale

Economies of Scale

Cost falls because:

- \* current production volume is high.

Example: a giant automated factory spreads FC over many units.

Learning Curve

Cost falls because:

- \* cumulative historical production is high.

Example: workers become extremely experienced after producing millions of units.

A firm can have:

Situation	Example
Scale without learning	Highly automated mass production
Learning without scale	Complex surgery
Both	Semiconductor manufacturing
Neither	Commodity small-scale operations

This distinction is directly emphasized in the slides.

#### 3. Shape of the Learning Curve

The slides show:

- \* steep decline initially
- \* flatter later
- \* eventually approaching a minimum cost level.



Why? Because:

early learning opportunities are huge.

At the beginning:

- \* many mistakes
- \* inefficient routines
- \* poor coordination
- \* immature design.

Later: most obvious improvements are already discovered.

So: learning slows down.

#### 4. *The Key Empirical Regularity*

every doubling of cumulative output reduces cost by a constant percentage.

Example: if cost falls by 20% when cumulative production goes:

- \* from 100 → 200 units

then it will ALSO fall by 20% when production goes:

- \* from 3,000 → 6,000 units.

This is NOT: “minus the same number each time.”

It is: “minus the same percentage each doubling.”

#### 5. *The Learning Curve Formula*

The slides provide:  $AC_n = AC_1 \times n^{-b}$

Where:

- \*  $AC_n$  = average cost of the nth cumulative unit
- \*  $AC_1$  = cost of first unit
- \*  $n$  = cumulative units produced
- \*  $b$  = learning parameter.

- \* more cumulative production

→ lower future cost.

#### 6. *Learning Curve Slope*

Suppose:

Cumulative Units	Cost
1	100
2	80
4	64
8	51.2

The slope is: 80%.

Why? Because each doubling reduces cost to:

80% of previous cost.

Learning rate = 1 – slope

So:

- \* 80% slope
- \* means 20% learning rate.



Students think:  
80% slope means:  
“cost decreases by 80%.”  
Wrong.

It means:  
cost becomes 80% OF the previous cost.  
Huge difference.

### 7. *Why Learning Happens*

#### 1. Worker Skill Improvement

Workers:

- \* become faster
- \* make fewer errors
- \* recognize patterns
- \* improve judgment.

This is especially important in:

- \* surgery
- \* aircraft assembly
- \* semiconductor production
- \* luxury manufacturing.

#### 2. Process Improvements

Teams discover:

- \* better workflows
  - \* more efficient sequencing
  - \* reduced waste
  - \* smarter coordination.
- Learning often happens through experimentation.

#### 3. Design Improvements

Products themselves become easier to produce.

Engineers redesign:

- \* components
- \* interfaces
- \* production layouts.

Manufacturing and design co-evolve.

#### 4. Coordination Improvements

Teams learn:

- \* how to communicate
- \* how to synchronize tasks
- \* how to avoid delays.

This is organizational learning.

#### 8. Tacit Knowledge

This is one of the deepest ideas in the learning section.

Some knowledge:

- \* cannot be fully written down
- \* cannot be instantly transferred



- \* exists in routines and experience.

Examples:

- \* elite surgery
- \* chip fabrication
- \* luxury craftsmanship
- \* logistics optimization.

Competitors cannot easily copy decades of tacit learning.

This creates durable advantage.

### *9. Why Learning Creates Competitive Advantage*

Learning creates:

- \* lower costs
- \* better quality
- \* fewer defects
- \* faster production
- \* stronger reliability.

And this creates a reinforcing loop:

More production

→ more learning

→ lower cost

→ lower prices

→ more market share

→ more production again.

This is cumulative advantage.

### *10. Ford Model T Example*

Important idea: cost reductions in manufacturing historically followed learning effects very strongly.

Ford became dramatically more efficient over time because:

- \* workers improved
- \* assembly lines improved
- \* processes standardized
- \* experience accumulated.

### *11. Solar Panels Example*

This is a classic modern learning-curve industry.

As cumulative production expanded globally:

- \* manufacturing improved
- \* defects fell
- \* engineering improved
- \* supply chains matured.

Result: solar costs collapsed over decades.

Very important strategic implication: sometimes technologies become competitive only AFTER enough cumulative learning occurs.



## 12. Learning Across Industries

Industry	Variable Improving
Aircraft	labor-hours
GE maintenance	repair time
Steel	labor-hours
Integrated circuits	price
Heart transplants	death rates

Learning affects:

- \* cost
- \* quality
- \* speed
- \* reliability
- \* outcomes.

Not only production expenses.

## 13. Barriers to Learning

### 1 Organizational Rigidity

People resist changing routines.

Firms become bureaucratic.

Employees repeat old habits.

### 2 Knowledge Hoarding

Employees may:

- \* hide expertise
- \* avoid sharing
- \* protect their importance.

This blocks organizational learning.

### 3 High Turnover

If experienced employees leave:

- \* tacit knowledge disappears
- \* learning resets partially.

This is why retention matters strategically.

## 14. Learning Organizations

To maximize learning firms must:

- \* document knowledge
- \* reward sharing
- \* encourage experimentation
- \* retain talent
- \* build learning culture.

Learning is partly a managerial problem.



### 15. *Strategies to Maximize Learning*

- \* aggressive pricing
- \* rapid volume growth
- \* large plants
- \* vertical integration
- \* accepting early losses.

Why? Because firms want:

- \* early cumulative output.

The earlier they move down the learning curve, the harder they become to catch.

### 16. *Why Firms Accept Early Losses*

Sometimes firms intentionally lose money initially because future learning advantages may dominate.

Example:

- \* Amazon
- \* Tesla
- \* Uber (historically)
- \* semiconductor firms.

The goal is:

- \* accumulate experience
- \* dominate future cost structure.

### 17. *TSMC — Why It Matters*

TSMC is one of the most important examples in the deck.

The key point is NOT simply: “TSMC is big.”

The key point is: TSMC accumulated extraordinary manufacturing learning over decades.

Its advantage includes:

- \* tacit process knowledge
- \* refinement
- \* defect reduction
- \* engineering coordination
- \* production discipline.

Competitors cannot easily replicate this quickly.

This is learning as a barrier to entry.

### 18. *Learning and Scale Together*

Scale and learning often reinforce each other:

Large scale

→ high cumulative output

→ faster learning.

But they are still conceptually different.



### Example

A semiconductor fab:

- \* has scale economies because factories are expensive
  - \* has learning economies because production expertise improves over time.
- That industry has BOTH.

### 19. Deep Strategic Implication

Industries with strong learning effects often become:

- \* winner-take-most
- \* concentrated
- \* hard to enter.

Because leaders improve faster simply by existing at larger scale longer.  
This is cumulative dominance.

### 20. Most Likely MCQ Traps

#### Trap 1

Learning depends on:

- current output
- cumulative output.

#### Trap 2

80% slope means:

- costs decrease by 80%
- costs become 80% of previous level.

#### Trap 3

Learning automatically occurs with time.

- False.

Learning requires:

- \* retention
- \* sharing
- \* experimentation
- \* adaptation.

#### Trap 4

Learning effects only reduce production cost.

- False.

They may improve:

- \* quality
- \* reliability
- \* speed
- \* outcomes.

#### Trap 5

Scale and learning are identical.

- False.



They often reinforce each other,  
but are distinct concepts.

#### **Part 4 – Diversification**

This section asks: “Should the firm operate in multiple industries?”

This is different from economies of scope.

Scope asks: \* can products share resources?

Diversification asks: \* should the company expand beyond its current industry boundaries?

This section becomes much more:

- \* strategic
- \* financial
- \* organizational.

#### *1. What Diversification Means*

Diversification means: a firm operates in more than one industry.

Type	Meaning
Related diversification	industries share commonalities
Unrelated diversification	industries largely unrelated

#### *2. Related Diversification*

Related diversification means businesses share:

- \* capabilities
- \* technologies
- \* distribution
- \* customers
- \* brands
- \* knowledge
- \* operations.

This is basically diversification built on economies of scope.

#### Examples

Apple

- \* iPhone
- \* Mac
- \* iPad
- \* Watch
- \* AirPods
- \* services

Shared:

- \* ecosystem
- \* design
- \* software
- \* chips
- \* branding
- \* customer base.

Yamaha

Different products, but overlapping engineering/manufacturing expertise.

#### Key Idea

Related diversification tries to create synergies.

Meaning: the whole becomes more valuable than separate parts.



### 3. *Unrelated Diversification*

Unrelated diversification means businesses share little operational overlap.

Example a company owning:

- \* insurance
- \* hotels
- \* mining
- \* food production.

Little operational connection.

This is often closer to financial portfolio management.

Berkshire Hathaway owns:

- \* insurance
- \* railroads
- \* energy
- \* manufacturing
- \* consumer products.

The businesses are not strongly operationally related.

The logic is mainly:

- \* capital allocation
- \* managerial discipline
- \* investment quality.

### 4. *Why Firms Diversify*

#### GOOD REASONS TO DIVERSIFY

##### A. Economies of Scope

Most important legitimate reason.

If businesses can:

- \* share capabilities
- \* share infrastructure
- \* share distribution
- \* share knowledge

then diversification may reduce cost or increase value.

##### B. Internal Capital Markets

Large diversified firms may allocate capital internally.

Meaning: instead of relying entirely on banks or stock markets, the firm moves resources between divisions.

Example: profits from one division fund growth in another.

This may be useful when external financial markets are imperfect.

#### Why Could This Help?

The firm may:

- \* know its own businesses better than outside investors
- \* fund long-term projects



- \* avoid financing constraints.
- But there are also dangers (later).

### C. Internal Labor Markets

Diversified firms may move:

- \* managers
  - \* engineers
  - \* specialists
- across divisions.

This improves:

- \* knowledge transfer
- \* career development
- \* talent utilization.

### D. Market Power

Diversified firms may strengthen bargaining power:

- \* with suppliers
- \* distributors
- \* retailers.

Example: a firm selling many products may negotiate better shelf placement.

### E. Risk Reduction (QUESTIONABLE)

Historically, firms argued that diversification reduces risk.

If one industry performs badly, another may perform well.

The strategy literature usually criticize this logic because shareholders can diversify themselves much more cheaply through financial markets.

So corporate diversification for pure risk reduction is often not value-creating.

This is a very common tricky MCQ.

### 5. *The Diversification Discount*

Empirical research often finds that diversified firms trade at lower valuation than the sum of separate businesses.

This is called diversification discount.

Why? Because diversification often creates:

- \* bureaucracy
- \* inefficiency
- \* weak incentives
- \* complexity
- \* cross-subsidization
- \* poor managerial focus.

### 6. *Cross-Subsidization*

One division funds another weak division.

This can become dangerous because bad businesses survive artificially.

Instead of shutting inefficient units, the diversified firm keeps financing them.

Result: capital allocation becomes inefficient.



### 7. Agency Problems and Managerial Motives

Managers may diversify NOT to maximize shareholder value, but to maximize:

- \* power
- \* prestige
- \* compensation
- \* empire size
- \* job security.

This is classic agency theory.

### Why Managers Like Diversification

Larger firms often mean:

- \* higher executive salaries
- \* more status
- \* lower personal employment risk.

If one business declines, others may stabilize the manager's position.

So diversification may benefit managers more than shareholders.

### 8. Complexity Costs

Diversification increases:

- \* coordination difficulty
- \* information problems
- \* bureaucracy.

Top management becomes:

- \* farther from operations
- \* less specialized
- \* slower.

This links back to diseconomies of scale.

### 9. Related vs Unrelated – Strategic Difference

Related diversification: seeks operational synergies.

Unrelated diversification: behaves more like investment portfolio management.

### Related Diversification

Main source of value are economies of scope.

### Unrelated Diversification

Main source of value:

- \* capital allocation quality
- \* governance
- \* investment discipline.

### 10. Core Competencies

Firms should diversify into areas connected to what they are uniquely good at.

These are called:

- \* core competencies
- \* strategic capabilities.



Example:

Honda:

- \* engines
- \* motorcycles
- \* cars
- \* generators.

Underlying competency: small-engine engineering.

### *11. The Danger of Overextension*

A firm may diversify too far from its competencies.

Then:

- \* knowledge does not transfer
- \* synergies disappear
- \* complexity dominates.

This often destroys value.

### *12. Why Relatedness Is Difficult*

Products may LOOK related, but operationally differ enormously.

Example: luxury fashion and mass retail fashion.

Both sell clothing, but:

- \* supply chains
- \* branding
- \* margins
- \* customer expectations
- \* operations

may be completely different.

So superficial similarity is not enough.

### *13. Strategic Fit*

The real question becomes: Is there strategic fit?

Meaning: can businesses genuinely reinforce each other?

This is the core evaluation criterion.

### *14. Dynamic Capabilities*

Some firms become good at:

- \* entering industries
- \* adapting capabilities
- \* redeploying resources.

This creates diversification ability itself as a competency.

Example:

Amazon retail, AWS, logistics, streaming, AI.

The deeper shared capability may be:

- \* digital infrastructure
- \* large-scale systems management
- \* platform building.



### 15. *Diversification and Corporate Strategy*

This section introduces: corporate-level strategy.

Business strategy asks: how to compete in one industry.

Corporate strategy asks: \* which industries should the firm be in?

Diversification is fundamentally a corporate strategy decision.

### **Week 02: Vertical Boundaries of the Firm.**

Week 01 asked: “How large and broad should the firm be?”

Week 02 asks: “Which activities should the firm perform internally vs buy from the market?”

### **PART 1 – Vertical Boundaries of the Firm**

Horizontal boundaries were:

- \* quantity
- \* variety.

Vertical boundaries are different.

They concern which stages of the value chain the firm controls itself.

The slides define the vertical chain as the process from raw materials to final customer.

Example chain:

- Raw materials
- components
- assembly
- distribution
- retail/service.

The closer an activity is to raw materials the more “upstream” it is.

The closer to customers the more “downstream” it is.

#### *1. What Vertical Integration Means*

A vertically integrated firm performs many stages internally.

Example:

Chevron:

- \* extracts oil,
- \* transports it,
- \* refines it,
- \* distributes it,
- \* sells gasoline.

That is high vertical integration.

#### *2. Low Vertical Integration*

Nike is almost the opposite.

- \* designs products,



- \* manages branding,
  - \* controls marketing,
- but manufacturing is outsourced globally.

So Nike controls:

- \* design,
  - \* branding,
  - \* strategy,
- but not production.

This is low vertical integration.

### 3. *The Make-or-Buy Decision*

This is the central question: Should the firm make internally or buy externally?  
one of the most fundamental strategic decisions a firm faces.

#### IMPORTANT

The decision is NOT “outsourcing good” or “integration good.”

The correct question is: Which governance structure minimizes total cost and maximizes strategic control?

### 4. *The Make-or-Buy Continuum*

Another extremely important point: make-or-buy is NOT binary.

Less Integrated	More Integrated
Arm’s-length transactions	Internal production
Long-term contracts	
Strategic alliances	
Joint ventures	
Parent/sub relationships	

Firms often choose:

- \* partial integration,
- \* partnerships,
- \* alliances,
- \* hybrid structures.

Not pure “make” or “buy.”

### 5. *Apple’s Vertical Chain*

The iPhone example is central because it shows: different stages require different governance choices.

Processors

Apple:

- \* designs chips internally,
- \* manufacturing outsourced to TSMC.

Why MAKE design?

Chip architecture is:

- \* strategic,
- \* differentiated,
- \* core to performance and energy efficiency.

This creates competitive advantage.



Why BUY fabrication?

TSMC has:

- \* massive economies of scale,
- \* extreme tacit manufacturing knowledge,
- \* \$30B+ fabs Apple cannot efficiently replicate.

Apple keeps strategic knowledge,  
but outsources scale-intensive manufacturing.

Displays

Apple buys OLED screens from:

- \* Samsung,
- \* LG.

Why? Because Samsung has:

- \* scale economies,
- \* proprietary OLED expertise.

BUT: Samsung is also a competitor.  
This creates strategic dependence.

So Apple diversifies suppliers:

- \* LG,
- \* BOE,  
etc.

This reduces supplier power.

Assembly

Foxconn assembles iPhones.

Why outsource? Because assembly is:

- \* standardized,
- \* labor-intensive,
- \* scale-intensive,
- \* not the main strategic differentiator.

Foxconn specializes in manufacturing efficiency.

iOS

Apple develops iOS internally.

Why? Because software ecosystem:

- \* deeply differentiates Apple,
- \* creates switching costs,
- \* integrates devices.

This is core strategic control.

Siri

Originally external startup, later acquired by Apple.

This is important: sometimes firms BUY capabilities first, then internalize them later.

DEEP INSIGHT



The iPhone case teaches: firms selectively integrate the stages where strategic control matters most.

This is the core logic of modern vertical boundaries.

## **PART 2 – Benefits and Costs of Using the Market**

### *Benefits of Buying*

#### *1. Economies of Scale and Learning*

Suppliers aggregate demand from many buyers.

This allows:

- \* larger scale,
- \* more learning,
- \* specialization.

TSMC is the perfect example.

If every tech company built its own fabs:

- \* massive duplication,
- \* lower scale,
- \* weaker learning.

Instead TSMC serves:

- \* Apple,
- \* Nvidia,
- \* AMD,
- \* Qualcomm,
- etc.

This creates extraordinary manufacturing expertise.

#### *2. Market Discipline*

External suppliers face competition.

If they become inefficient:

- \* customers leave,
- \* competitors replace them.

Internal divisions often lack this pressure. Markets create discipline, Internal bureaucracies may not.

### *Costs of Buying*

#### *1. Coordination Problems*

Separate firms may fail to coordinate properly.

Especially when:

- \* components strongly interact,
- \* timing matters,
- \* design attributes matter.

We will later see Boeing.

#### *2. Information Leakage*

Suppliers may learn:

- \* designs,



- \* know-how,
  - \* customer information.
- This can weaken competitive advantage.

### 3. *Transaction Costs*

Using markets is not free.

Contracts require:

- \* negotiation,
- \* monitoring,
- \* enforcement,
- \* adaptation.

This becomes the heart of the chapter.

## **PART 3 — Make-or-Buy Fallacies**

Fallacy #1

“Make if it’s a competitive advantage”  
wrong.

Why? Because:

if the asset can easily be bought in the market,  
competitors can buy it too.

Then it is NOT a source of unique advantage.

Correct Logic

A capability matters strategically when:

- \* valuable,
- \* difficult to obtain externally,
- \* difficult to imitate.

Nike example:

- \* shoe design → internal
- \* manufacturing → outsourced.

Because manufacturing is widely available.

Competitive advantage does NOT automatically imply vertical integration.

Fallacy #2

“Buy to avoid production costs”

Wrong because: the cost does not disappear.

The supplier incurs it, then charges it in the price.

The real question is: who is the lowest-cost producer?

Not: who physically performs production?

Hospital Laundry Example

A specialized laundry firm:

- \* serves many hospitals,
- \* has scale economies,
- \* lower cost/unit.

So outsourcing makes sense.



### Fallacy #3

“Make to capture supplier profit”

Wrong because internal production requires:

- \* investment,
- \* capital,
- \* managerial effort,
- \* opportunity cost.

Economic profit = Accounting profit – Opportunity cost

The supplier’s margin may simply reflect:

- \* superior expertise,
- \* scale economies,
- \* learning advantages.

### Fallacy #4

“Make to avoid high prices”

Wrong because: markets provide hedging mechanisms.

Example: airlines do NOT buy oil refineries.

Instead they use:

- \* futures contracts,
- \* hedging,
- \* long-term agreements.

Integration is justified only when markets genuinely fail.

### Fallacy #5

“Make to tie up a channel”

This is the hardest one conceptually.

The slide introduces the Single Monopoly Profit theorem.

Core idea: if you already monopolize one stage, controlling another stage does NOT create additional monopoly profit automatically.

### Example

Suppose you already monopolize movie production.

Buying all cinemas downstream may NOT increase total monopoly profit.

Why? Because monopoly profit can already be extracted at one stage.

The benefit would come from:

- \* creating monopoly power,  
NOT
- \* vertical integration itself.



## **PART 4 – Reasons to Buy**

### *1. Economies of Scale and Learning*

This is the strongest reason to buy.

Suppliers aggregate demand from many buyers.

This creates:

- \* lower cost,
- \* more learning,
- \* specialization.

Samsung Example

Samsung supplies:

- \* displays,
- \* memory chips,
- \* components,

to:

- \* Apple,
- \* itself,
- \* others.

This allows Samsung's component division to reach huge scale.

Why doesn't Apple simply produce for itself and competitors too?

competitors may fear:

- \* supply manipulation,
- \* information leakage.

So achieving supplier-scale internally may be difficult.

### *2. Discipline of the Market*

External suppliers must survive competition.

Internal units may become inefficient.

two major inefficiencies:

- \* agency costs
- \* influence costs.

These are extremely important management concepts.

## **PART 5 – Agency Costs, Influence Costs, Contracts, Transaction Costs, and Holdup**

### *1. Discipline of the Market*

The slides say suppliers face: discipline of the market.

Meaning external suppliers survive only if they remain:

- \* efficient,
- \* competitive,
- \* reliable.

Internal divisions often do not face this pressure.

This creates two problems:

Problem	Meaning
Agency costs	Employees/managers not acting in firm's interest
Influence costs	Internal political battles for resources



## PART A — Agency Costs

### 2. *What Agency Costs Mean*

Agency costs arise because: the people controlling resources are not the owners.

The slides define:

Role	Meaning
Principal	Owner/shareholder
Agent	Manager/worker

The problem is that agents may pursue:

- \* comfort,
  - \* low effort,
  - \* prestige,
  - \* personal goals,
- instead of maximizing firm value.

This is one of the central ideas of modern management and economics.

### 3. *Shirking*

It means:

- \* low effort,
- \* inefficiency,
- \* waste,
- \* avoiding responsibility.

Agency costs include TWO things:

#### 1. Cost of shirking itself

Example:

- \* slower work,
- \* poor quality,
- \* inefficiency.

#### 2. Cost of preventing shirking

Example:

- \* monitoring,
- \* supervision,
- \* audits,
- \* incentive systems,
- \* reporting systems.

Even if employees behave well, monitoring itself is costly.

### 4. *Why Internal Divisions Are Vulnerable*

Suppose an internal division produces components.

Problem: its performance is difficult to evaluate.

Why? Because:

- \* costs shared across divisions,
- \* no real market price,
- \* no external competition,
- \* internal transfers mandatory.

So inefficiency becomes hidden.



### Example

If an external supplier becomes inefficient:

- \* the firm can switch supplier.

If an internal division becomes inefficient:

- \* changing is politically difficult,
- \* workers harder to dismiss,
- \* internal resistance stronger.

Markets impose discipline automatically, Hierarchies often do not.

Internal production may look cheaper on paper because:

- \* inefficiencies are hidden,
- \* transfer prices distorted,
- \* performance hard to measure.

### *PART B – Influence Costs*

#### *5. What Influence Costs Mean*

Influence activities as:

- \* lobbying,
- \* hiding information,
- \* distorting information,
- \* competing for internal resources.

### Deep Logic

Inside large firms divisions compete for:

- \* budgets,
- \* headcount,
- \* projects,
- \* prestige,
- \* management attention.

Instead of competing in the market, they compete politically.

This creates:

- \* waste,
- \* bureaucracy,
- \* slow decisions.

### Example

A division may:

- \* exaggerate future demand,
- \* hide inefficiencies,
- \* lobby executives,
- \* block rival divisions.

This consumes resources without creating value.

External suppliers also have inefficiencies BUT competition eliminates weak firms.

Internal divisions survive much longer.

This is a key difference between:

- \* markets
- \* hierarchies.



*PART C – Why Contracts Matter*

*6. The Role of Contracts*

When firms transact through markets their interests are NOT naturally aligned.

The supplier wants:

- \* maximize own profit.

The buyer wants:

- \* maximize own value.

Contracts try to align incentives.

But Contracts Are Costly they require:

- \* negotiation,
- \* drafting,
- \* monitoring,
- \* enforcement,
- \* adaptation.

Sometimes these costs become so high that internal production becomes preferable, even if the supplier has lower production cost.

The decision is NOT “Who produces cheaper?”

It is: “Which governance structure minimizes total cost?”

Total cost includes:

- \* production cost
- \* transaction cost.

*PART D – Complete vs Incomplete Contracts*

*7. Complete Contracts*

A complete contract would specify:

- \* every contingency,
- \* every obligation,
- \* every outcome,
- \* every response,

for every possible future situation.

If contracts were complete:

- \* no disputes,
- \* no opportunism,
- \* no holdup,
- \* outsourcing would work perfectly.

But Reality = Incomplete Contracts

Three reasons:

Reason

Bounded rationality

Measurement difficulties

Information asymmetry

Meaning

humans cannot foresee everything

quality/performance hard to specify

behavior hard to observe

*8. Bounded Rationality*

Humans cannot anticipate every future event and process infinite complexity.



Example: you cannot write a contract covering every future technological problem in a 15-year aerospace project.

### 9. Measurement Difficulties

Some things are hard to specify precisely.

Example:

“high-quality software”

“luxury craftsmanship”

“good customer experience”

These are partly subjective, so contracts cannot perfectly define them. 10. Information asymmetry

One party knows more than the other.

Example: supplier internally cuts quality, but buyer cannot perfectly observe it.

This creates hidden behavior problems.

### *PART E — When Contract Incompleteness Becomes Dangerous*

the 3 major reasons to MAKE.

#### 1. Coordination Problems

##### 11. Design Attributes

Meaning: small mismatches create huge problems.

##### High Design Attributes

Example: precision engine component.

Tiny deviations:

- \* vibration,
- \* malfunction,
- \* failure.

##### Low Design Attributes

Example: cleaning services.

Tasks loosely coupled.

Coordination less critical.

When activities are tightly interconnected market coordination becomes difficult.

#### 12. Why Contracts Fail Here

Suppose final product fails later.

Who is responsible?

- \* component supplier?
- \* assembler?
- \* quality inspector?

Difficult to prove.

This creates:

- \* disputes,
- \* delays,
- \* blame shifting.

### *PART F — Boeing 787 Dreamliner*

#### 13. Boeing's Outsourcing Strategy



Boeing outsourced:

- \* huge portions of the aircraft,
- \* design work,
- \* subsystem integration.

The Dreamliner outsourced:

~70% of value,  
vs much lower in older Boeing models.

Boeing's Goal

Reduce:

- \* cost,
- \* development burden,
- \* risk.

Boeing tried to become mainly a system integrator.

#### 14. What Went Wrong

Suppliers:

- \* designed components,
- \* handled sub-assembly,
- \* coordinated complex interfaces.

But aircraft systems had enormous design interdependence.

Meaning: one design choice affected many others.

Problems appeared only at final assembly.

Result

- \* delays,
- \* billions over budget,
- \* coordination chaos.

#### DEEP LESSON

Excessive outsourcing fails when:

- \* design attributes are high,
- \* coordination requirements enormous,
- \* contracts cannot specify everything.

This is THE lesson.

#### *PART G – Leakage of Private Information*

##### *15. Why Information Leakage Matters*

Outsourcing exposes:

- \* designs,
- \* know-how,
- \* customer data,
- \* production techniques.

This may weaken competitive advantage.

Patents are NOT perfect protection.

Why? Because:

- \* patents expire,
- \* require disclosure,



- \* competitors design around them,
- \* knock-offs appear.

#### Coca-Cola Example

Coca-Cola never patented its formula.

Why? A patent:

- \* reveals information publicly,
- \* eventually expires.

Instead Coke protects through secrecy and internal production.

Sometimes keeping knowledge secret is more valuable than legal protection.

#### *PART H – Transaction Costs*

##### *16. What Transaction Costs Are*

Two major types:

Type	Meaning
Contracting costs	negotiating/writing/enforcing
Opportunism costs	exploitation of incomplete contracts

#### Ronald Coase

The slides quote Coase: “Firms exist because of transaction costs.”

This is foundational.

If markets had zero transaction costs: firms would barely exist.

Everything would be outsourced.

Huge idea.

#### *PART I – Relationship-Specific Assets*

##### *17. Relationship-Specific Assets (RSAs)*

These are: assets that are much more valuable inside one specific relationship than elsewhere.

If relationship ends asset loses value.

This creates:

- \* lock-in,
- \* dependence,
- \* bargaining vulnerability.

#### Types of Specificity

##### 1. Site Specificity

Asset located near customer.

Example: factory built beside mine.

Moving destroys value.

##### 2. Physical Asset Specificity

Equipment customized for one buyer.

Example: Ford-specific cup holder molds.

##### 3. Dedicated Assets

Capacity built for one client's demand.

##### 4. Human Asset Specificity

Specialized routines/skills unique to relationship.



The more specific the asset: the greater the transaction-cost problem.  
This is one of the central laws of transaction cost economics.

## **PART 6 — Fundamental Transformation, Quasi-Rents, and the Holdup Problem**

### *1. The Fundamental Transformation*

BEFORE the Investment

Initially:

- \* many possible suppliers,
- \* many possible buyers,
- \* competition exists,
- \* bargaining power relatively balanced.
- \* large number of potential partners,
- \* parties can choose best option.

This is basically a competitive market.

AFTER the Investment

Suppose one party now makes a relationship-specific investment.

Suddenly:

- \* alternatives disappear,
- \* switching becomes expensive,
- \* parties become locked together.
- \* small numbers,
- \* lock-in,
- \* bilateral bargaining,
- \* asymmetric positions.

This is the “fundamental transformation”: competition disappears AFTER specificity appears.

### *2. The Aluminum Smelter Example*

Before building you can choose among many bauxite mines.

After building a smelter next to one mine:

- \* relocation impossible,
- \* dependence enormous.

Now the relationship becomes:

- \* highly specific,
- \* highly dependent,
- \* vulnerable to bargaining problems.

Relationship-specific investment transforms market competition into bilateral dependency.

### *3. Rents and Quasi-Rents*

Rent = Economic profit from intended relationship.

Meaning: the profit generated when the asset is used in its best intended relationship.

Example: A factory produces custom Ford cup holders.

Using the factory for Ford = highly profitable.

That profit is the rent.

### *4. Quasi-Rent*

Quasi-rent = Rent - Profit from next-best alternative

Quasi-rent measures: how much value disappears if the relationship breaks.

Example



Suppose: using asset with Ford:

+500K profit.

Alternative use: -7.5M loss.

Then:  $500K - (-7.5M) = 8M$  (quasi-rent)

It's a huge number because the investment is highly relationship-specific.

### 5. *Relationship-Specific Investment (RSI)*

Definition: the loss from using the asset elsewhere.

This is the "dependency cost."

The more relationship-specific the investment:

- \* the bigger the RSI,
- \* the bigger the quasi-rent,
- \* the bigger the bargaining vulnerability.

Quasi-rents are NOT ordinary profits. They specifically arise because the asset loses value outside the relationship. That distinction is crucial.

### 6. *The Cup Holder Problem*

This is the classic holdup example.

You are a supplier, Ford asks you to produce cup holders and to do so you build a specialized factory.

Contract Terms

Ford pays: \$12 per cup holder.

Costs:

\* fixed cost = \$1M

\* variable cost = \$3/unit.

Alternative use: sell modified holders to jobbers at \$4.

Key Point

The factory is highly relationship-specific.

Without Ford: the investment becomes almost worthless.

This creates: huge quasi-rents.

### 7. *Before vs After Investment*

Before investment: supplier has bargaining power.

Can:

- \* reject Ford,
- \* choose Toyota,
- \* do something else.

After investment: supplier becomes locked in.

Now: Ford relationship is vastly more valuable than alternatives.

This is the fundamental transformation again.

### 8. *Why Quasi-Rents Matter*

Quasi-rents create: bargaining vulnerability.

Because once investment is sunk, the other party can renegotiate opportunistically.



This leads to the holdup problem.

## 9. The Holdup Problem

Definition: renegotiating to capture quasi-rents after investment occurs.

Example

Initially Ford agreed to: \$12/cup holder.

After factory built Ford says: "Actually, we'll pay \$8."

What can supplier do?

Alternative: massive losses with jobbers.

So supplier accepts.

Ford is exploiting:

- \* sunk costs,
- \* lock-in,
- \* incomplete contracts.

This is opportunism. The problem is NOT that the original deal was irrational.

The problem is: after specificity appears, bargaining power changes.

This is the heart of transaction-cost economics.

## 10. Why Contracts Cannot Fully Solve This

It is not so easy because contracts are:

- \* incomplete,
- \* costly,
- \* hard to enforce,
- \* unable to specify every contingency.

Especially when:

- \* uncertainty high,
- \* technology complex,
- \* quality difficult to measure.

## 11. Why Holdup Is Dangerous

Rational suppliers anticipate holdup risk.

So they may:

Response	Consequence
Refuse investment	no relationship
Demand safeguards	higher transaction costs
Use generic assets	lower efficiency
Distrust partner	less cooperation

This is extremely important.

Holdup destroys efficiency BEFORE opportunism even occurs.

Why? Because fear of opportunism changes behavior ex ante.

## 12. Why Relationship-Specific Assets Lead to MAKE

the more relationship-specific the investment, the more likely firms choose MAKE.



Why? Because vertical integration:

- \* eliminates bilateral bargaining,
- \* removes opportunistic renegotiation,
- \* reduces transaction costs.

Vertical integration is NOT mainly about: “capturing supplier profit.”

It is about: governing transaction costs and protecting specific investments.

### *13. Transaction Costs Created by Holdup*

#### 1. Negotiation/Renegotiation Costs

Constant bargaining,  
lawyers,  
monitoring,  
contract revisions.

#### 2. Defensive Investments

Firms invest inefficiently just to protect themselves.

Example:

- \* backup suppliers,
- \* redundant capacity,
- \* bargaining leverage.

#### 3. Distrust

Less information sharing,  
more bureaucracy,  
more red tape.

This is extremely important organizationally.

#### 4. Reduced Specific Investment

Firms avoid highly specialized assets.

Instead they use:

- \* generic machinery,
- \* less optimized production.

This reduces efficiency, specialization and productivity.

### *14. GM vs Toyota Example*

GM:

- \* adversarial supplier relationships,
- \* distrust,
- \* higher transaction costs,
- \* weaker quality/innovation.

Toyota:

- \* trust-based partnerships,
- \* long-term cooperation,
- \* better outcomes.

governance quality matters. Not all outsourcing relationships are equal.

### *15. Why Trust Matters*

Trust reduces:

- \* monitoring,
- \* negotiation,
- \* defensive behavior,
- \* opportunism fears.



This lowers transaction costs enormously.

This is why long-term supplier relationships can outperform purely adversarial market transactions.

### 16. Hermès Example

Hermès:

- \* luxury crocodile bags,
- \* extremely scarce inputs,
- \* highly valuable craftsmanship.

Why Integrate Crocodile Supply?

#### A. Scale Economies?

Probably breeders already have scale, so scale alone does NOT explain integration.

#### B. Information Leakage?

Huge issue.

Hermès protects:

- \* sourcing quality,
- \* craftsmanship,
- \* luxury standards,
- \* exclusivity.

#### C. Coordination?

Yes.

Luxury quality requires:

- \* exact standards,
- \* tanning consistency,
- \* material precision.

#### D. Relationship-Specific Assets?

Absolutely. Breeding crocodiles for Hermès:

- \* highly specialized,
- \* quality-sensitive,
- \* reputation-dependent.

This creates:

- \* quasi-rents,
- \* holdup risks,
- \* dependence.

### 17. The Entire Logic of Vertical Integration

At this point, the whole chapter can be summarized with one giant trade-off:

Buy

Better scale

Better learning

Market discipline

Lower production cost

Supplier specialization

Make

Better coordination

Better control

Less leakage

Lower transaction cost

Better protection from holdup



## Week 03

### PART 1 – The Make-or-Buy Framework (Formalization)

#### 1. The Two Efficiencies

Efficiency	Meaning
Technical efficiency	minimizing production costs
Agency efficiency	minimizing transaction/coordination costs

#### Technical Efficiency

Concern: Who can physically produce more efficiently?

Driven by:

- \* economies of scale,
- \* learning,
- \* specialization,
- \* scope.

This usually favors: BUY, because specialized suppliers aggregate demand from many customers.

#### Agency Efficiency

Concern: Which governance structure minimizes organizational and transaction problems?

Driven by:

- \* coordination,
- \* holdup,
- \* information leakage,
- \* agency costs,
- \* influence costs.

This often favors: MAKE.

#### 2. Formal Trade-Off Model

$\Delta T$  = Production cost of Make – Production cost of Buy

$\Delta A$  = Transaction cost of Make – Transaction cost of Buy

$\Delta C = \Delta T + \Delta A$

#### Meaning

$\Delta T$  -> Measures production-cost advantage.

Usually: BUY has lower production cost because suppliers specialize.

So  $\Delta T$  tends to favor BUY.

$\Delta A$  -> Measures transaction-cost difference.

As asset specificity rises:

- \* holdup risk rises,
- \* coordination becomes harder,
- \* transaction costs of buying rise.

So  $\Delta A$  increasingly favors MAKE.

Interpretation of the graph

At low specificity: BUY dominates.

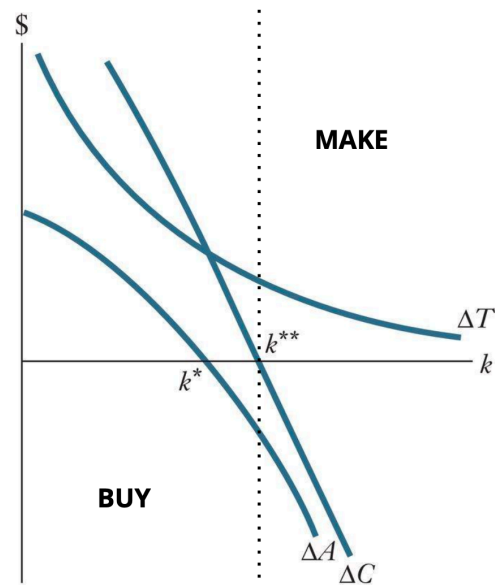
Why?

- \* strong supplier scale economies,
- \* low holdup risk,
- \* low transaction costs.

As specificity increases:

- \* market suppliers lose scale advantages,
- \* transaction costs rise sharply,
- \* holdup becomes dangerous.

Eventually: MAKE becomes more efficient.



This switching point is:  $k^{**}$

Asset specificity is NOT binary, it is continuous.

So firms move gradually from:

- \* pure market
  - hybrids
  - integration.

### 3. Understanding the Curves

$\Delta T$  Curve

As asset specificity rises: market suppliers serve fewer customers.

Why? Because the input becomes more customized.

So supplier scale economies weaken.

Thus BUY loses technical efficiency.

$\Delta A$  Curve

Initially MAKE has higher transaction/agency costs because:

- \* bureaucracy,
- \* influence costs,
- \* internal inefficiency.

But as specificity rises BUY transaction costs explode due to:

- \* holdup,
- \* renegotiation,
- \* coordination.

Thus  $\Delta A$  increasingly favors MAKE.

Low specificity	High specificity
BUY efficient	MAKE efficient
Market discipline	Coordination/control
Scale economies	Holdup protection

### 4. Other Factors Beyond Asset Specificity

Complexity

Complex transactions:



- \* harder to specify,
  - \* harder to coordinate,
  - \* harder to monitor
- transaction costs rise.

Result: MAKE more likely.  
Example: aircraft systems.

#### Information Asymmetry

If supplier behavior difficult to observe:

- \* hidden quality reduction,
- \* hidden effort,
- \* opportunism.

Transaction costs rise. MAKE more likely.

#### Infrequent Transactions

Rare transactions:

- \* increase opportunism risk,
- \* because relationship less valuable long-term.

BUT firms often still BUY because: they cannot justify the investment.

Example: Airbnb/Uber/TripAdvisor help solve trust/information problems.

#### Previous Relationships

Trust lowers transaction costs.

Long-term cooperation:

- \* reduces opportunism fears,
- \* reduces monitoring needs,
- \* reduces renegotiation risk.

Thus BUY becomes more feasible. This connects directly to Toyota-style supplier systems.

#### 5. Empirical Predictions

Prediction 1 — Large Fixed Costs Favor BUY

If input production requires:

- \* huge plants,
- \* large R&D,
- \* high specialization,

firms prefer suppliers because suppliers aggregate many buyers.

#### Standard Components

If inputs are standardized:

- \* screws,
- \* memory chips,
- \* packaging,

market suppliers gain huge scale economies -> BUY likely.

#### Prediction 2 — Firm-Size Hypothesis

Large firms more likely to MAKE.

Why? Because large firms themselves can reach: MES.

Meaning: they internally achieve sufficient scale.

#### Multiple Product Lines



If multiple products share inputs: economies of scope appear internally.

Thus MAKE becomes more attractive.

This connects directly to Week 01 scope economies.

Prediction 3 — Asset Specificity Dominates

Even small firms may vertically integrate when specificity very high.

This is extremely important.

Why? Because transaction-cost problems may dominate scale disadvantages.

#### 6. Luppolajo Brewery Example

This case is VERY good because it combines:

- \* artisanal production,
- \* specificity,
- \* coordination,
- \* quality control.

Why Integrate Farming?

The brewery:

- \* grows cereals and hops itself,
- \* controls drying/storage,
- \* tightly links ingredients to beer quality.

Why? Because:

- \* ingredients highly specific,
- \* timing critical,
- \* quality degradation dangerous.

This creates:

- \* coordination needs,
- \* quality-control needs,
- \* relationship-specificity.

Thus MAKE becomes attractive despite small size.

This case destroys a common misconception: “Only large firms vertically integrate.”

False. Specificity may dominate scale economies.

#### 7. Industry Examples

Automobile Industry

Toyota:

- \* makes engines,
- \* buys bolts.

Why? Engines:

- \* high human asset specificity,
- \* strategic,
- \* coordination-intensive.

Bolts:

- \* standardized,
- \* low specificity.

Aerospace

Rolls-Royce makes turbine blades internally.



- \* extreme precision,
- \* difficult performance evaluation,
- \* catastrophic failure risk.

#### Energy Sector

Mine-mouth power plants, coal plants built near mines.

Huge:

- \* site specificity,
- \* dependence,
- \* coordination.

Often integration or long-term contracts.

#### Sales Operations

Pharma sales reps often integrated.

Why?

- \* learning products costly,
- \* tacit knowledge important,
- \* human asset specificity high.

Insurance agents easier to outsource.

## **PART 2 – Alternatives to Vertical Integration**

### **PART A – Tapered Integration**

#### *1. What Tapered Integration Means*

Definition: simultaneously making and buying the same activity.

Instead of 100% internal production or 100% outsourcing, the firm mixes both.

#### Upstream Tapering

Firm produces some inputs internally, buys the rest externally.

Example: a car company making some components itself while sourcing others from suppliers.

#### Downstream Tapering

Firm sells through own stores AND independent distributors.

Example luxury firms using:

- \* flagship stores,
- \* wholesalers,
- \* department stores simultaneously.

#### Example

Zara

- \* ~60% in-house
- \* ~40% outsourced.

Very important because Zara needs:

- \* flexibility,
- \* speed,
- \* scale,
- \* responsiveness.

No pure solution works perfectly.



## 2. Why Firms Use Tapered Integration

### Benefit 1 — Reduced Capital Requirements

Pure integration requires:

- \* factories,
- \* logistics,
- \* stores,
- \* employees,
- \* equipment.

Very expensive and Tapering reduces total investment.

The firm internalizes only part of operations.

### Benefit 2 — Information Advantage

If the firm internally performs the activity AND buys externally, then it understands:

- \* real production costs,
- \* margins,
- \* operational realities.

This strengthens bargaining power.

Without internal knowledge, suppliers may exaggerate:

- \* costs,
- \* complexity,
- \* necessity of price increases.

Tapering gives informational benchmarking.

### Benefit 3 — Stronger Incentives and Discipline

Threat	Who gets disciplined
More outsourcing	internal divisions
More in-house production	suppliers

### Meaning

Internal managers know: “If we become inefficient, outsourcing may expand.”

Suppliers know: “If we become opportunistic, internal production may expand.”

This creates:

- \* incentives,
- \* discipline,
- \* bargaining balance.

Very elegant governance mechanism.

## 3. Costs of Tapered Integration

Hybrid structures solve problems, but create new ones.

### Cost 1 — Loss of Economies of Scale

Tapered integration may reduce economies of scale because production is divided between internal operations and external suppliers. Since neither side receives the full production volume, average costs can remain higher than under full specialization.

Moreover, the firm’s internal capacity must be large enough to make the threat of expanding in-house production credible. If internal production is too limited, suppliers know the firm cannot realistically replace them, weakening bargaining power and reducing one of the main advantages of tapered integration.

### Cost 2 — Coordination Problems

Shared production may create:

- \* inconsistent standards,



- \* conflicts,
- \* specification mismatches.

Especially difficult when:

- \* quality complex,
- \* design tightly integrated.

#### Cost 3 — Misleading Internal Information

Suppose internal division inefficient. Managers compare supplier prices to inefficient internal costs then they may wrongly conclude that suppliers are expensive. This biases decisions.

#### Cost 4 — Commitment to Inefficient Operations

The firm may keep inefficient internal production alive just to:

- \* preserve bargaining leverage,
- \* maintain benchmarking ability.

Meaning: the internal operation survives strategically, not economically.

### **PART B — Franchising**

#### *4. What Franchising Is*

Definition: independent operators using the franchisor's brand and business model. Very important: the franchisee is NOT an employee, they are independent business owners.

##### Franchisor Provides

- \* brand
- \* business model
- \* systems
- \* standards
- \* supply structure

##### Franchisee Provides

- \* capital
- \* local management
- \* employees
- \* operational effort.

##### Examples

- \* McDonald's
- \* Marriott
- \* Subway

##### \* Starbucks

- \* Benetton
- \* Calzedonia.

#### *5. Why Franchising Exists*

Franchising combines centralized scale advantages with decentralized incentives.

##### Franchisor Handles Scale Economies

- \* manufacturing,
- \* purchasing,
- \* national advertising.

These activities have:

- \* economies of scale,
- \* standardization advantages.



### Franchisees Keep Residual Profits

Because franchisees keep profits after costs, they have:

- \* strong incentives,
- \* local entrepreneurial motivation,
- \* high effort.

Much stronger than salaried managers.

This solves a classic agency problem.

A corporate store manager:

- \* may shirk,
- \* may not care deeply about profitability.

A franchisee owns the upside -> This creates stronger incentives.

### 6. Local Knowledge Advantage

Franchisees often understand:

- \* local customers,
- \* neighborhoods,
- \* hiring conditions,
- \* cultural preferences

better than distant headquarters.

This is another major advantage.

### 7. Free Riding Problem

This is the key weakness of franchising.

What Is Free Riding?

A franchisee may:

- \* reduce quality,
- \* cut service,
- \* save costs,

while still benefiting from the global brand reputation.

Example: dirty McDonald's location.

Customers blame: McDonald's, not only franchisee.

How Franchisors Solve It

- \* training,
- \* quality controls,
- \* monitoring,
- \* operational standards.

Because protecting brand consistency is critical.

### 8. Asset-Light Hotel Strategy

The hotel example is VERY important.

Marriott, Hilton, Hyatt increasingly:

- \* own fewer hotels,
- \* operate through:
  - \* franchising,
  - \* management contracts,
  - \* licensing.

Why? Hotels are:

- \* capital-intensive real estate assets.



But hotel chains' real value often lies in.

- \* brand,
- \* reservation systems,
- \* loyalty programs,
- \* operating know-how.

Thus they separate property ownership from brand/system control.

Franchising exists because it combines:

Centralization	Decentralization
Brand	Local effort
Scale economies	Entrepreneurial incentives
Standardization	Local adaptation

It is basically a compromise between hierarchy and market incentives.

## **PART C – Strategic Alliances and Joint Ventures**

### *1. What Strategic Alliances Are*

Definition: agreements where independent firms organize activities collectively while maintaining autonomy.

The firms:

- \* cooperate,
  - \* coordinate,
  - \* share resources,
- BUT they remain legally independent.

An alliance is NOT:

- \* a merger,
- \* full integration,
- \* acquisition.

The firms still have:

- \* separate ownership,
- \* separate objectives,
- \* separate incentives.

This is the source of both flexibility, and instability.

### *2. Types of Alliances*

The slides distinguish three types.

Type	Meaning
Horizontal alliances	same industry
Vertical alliances	same value chain
Other alliances	unrelated industries

Horizontal Alliances

Firms in the same industry cooperate.

Example: Star Alliance.

Airlines share:

- \* routes,
- \* loyalty programs,
- \* coordination,
- \* networks.



Why cooperate with competitors? Because some activities have:

- \* huge fixed costs,
- \* network effects,
- \* scale economies.

Sharing them creates value.

#### Vertical Alliances

Firms in the same supply chain cooperate.

Example: Toyota + Tier 1 suppliers.

Toyota does NOT fully vertically integrate everything.

Instead it creates:

- \* long-term collaboration,
- \* trust,
- \* shared design,
- \* shared quality systems.

This reduces transaction costs WITHOUT full ownership.

#### Other Alliances

Firms from different industries cooperate.

Example: Uber + Spotify.

Goal: complementary value creation.

### 3. *Joint Ventures (JVs)*

Definition: alliances where firms jointly create a new organization.

This is more integrated than a simple alliance.

A JV creates:

- \* shared ownership,
- \* shared governance,
- \* shared profits/losses.

But parent firms remain independent.

Example “Hulu”

Originally: NBC + Fox + Disney.

JVs often appear when cooperation valuable, but full acquisition difficult.

Reasons:

- \* regulation,
- \* uncertainty,
- \* political constraints,
- \* capability sharing.

### 4. *Why Alliances and JVs Exist*

Condition 1 — Incomplete Contracts

When transactions are complex, uncertain, hard to specify.

Pure market contracts fail but full integration may also be excessive.

Alliance becomes middle ground.

Example

Advanced technology collaboration.



Impossible to specify:

- \* every future innovation,
- \* every adaptation,
- \* every contribution.

Alliance allows flexibility.

Condition 2 — Mutual Relationship-Specific Investments

If BOTH firms invest specifically both become vulnerable, both can hold up each other. This creates mutual hostages.

Meaning: both parties have incentives to preserve cooperation.

Mutual dependence can REDUCE opportunism.

Condition 3 — One Firm Cannot Develop Everything Alone

Sometimes capabilities are too expensive, too complex, too specialized.

Alliance allows capability pooling, knowledge combination, shared learning.

Example: Car manufacturer entering EV batteries.

May cooperate with battery specialists, software firms, chip companies.

Condition 4 — Uncertain or Temporary Opportunity

If market uncertain -> full integration too risky.

Alliance allows experimentation, flexibility, shared risk.

Example: Entering new technology quickly.

Condition 5 — Local Knowledge Needed

This is extremely important internationally.

Foreign firms often lack:

- \* cultural knowledge,
- \* political knowledge,
- \* local distribution understanding.

So they ally with local partners.

Starbucks Italy Example

Why Starbucks Feared Italy

The slides list:

- \* strong coffee culture,
- \* €1 espresso norms,
- \* local rituals,
- \* standing coffee consumption,
- \* dense local bar networks,
- \* possible nationalism.

Meaning: Starbucks' traditional model might fail badly. Failure in Italy could damage global reputation and legitimacy as coffee expert. So uncertainty very high.

Solution: Percassi Partnership

Percassi already understood:

- \* Italian retail,
- \* consumer habits,
- \* local operations,
- \* premium-brand management.

Starbucks outsourced local operational adaptation, while retaining brand, concept, strategic control.

This is classic hybrid governance.



The Milan Roastery is directly owned by Starbucks.

Why? Because:

it is:

symbolic,

\* flagship-level,

\* strategically critical.

Again selective integration.

#### *5. Drawbacks of Alliances and JVs*

Problems Inherited from BUY

Information Leakage

Partners may learn:

\* know-how,

\* technologies,

\* customer data,

\* strategic information.

Especially dangerous between competitors.

No Strong Formal Control

Contracts incomplete. Disputes difficult. Governance ambiguous.

Problems Inherited from MAKE

Agency Costs

JV managers may:

\* pursue own interests,

\* shirk,

\* behave politically.

Influence Costs

Partners compete for:

\* resources,

\* control,

\* strategic direction.

The alliance itself may become a political battlefield.

#### *6. Unequal Effort Problem*

one partner may contribute 25% effort, but receive 50% profits.

This is classic: free-riding.

Alliances solve some transaction costs and some capability gaps, BUT they create:

\* governance ambiguity,

\* shared-control problems,

\* incentive conflicts.

They are compromises, not perfect solutions.



## **PART D — Semi-Formal Long-Term Relationships**

### *7. Implicit Contracts*

Definition: unstated understandings between parties.

These are:

- \* promises,
- \* expectations,
- \* relational norms.

NOT legally enforceable.

They survive because future relationship value matters. A firm may avoid opportunism because destroying trust destroys future business.

This creates self-enforcement. Trust can substitute for formal contracts.

### *8. Why Implicit Contracts Solve Holdup*

If relationship valuable enough short-term opportunism becomes irrational.

Railroad Example

car manufacturer + railroad.

Railroad bought: specialized autorack railcars.

Then car design changed, making them obsolete.

Legally? Manufacturer had NO obligation to compensate.

But It Did

Why? Because: destroying railroad trust would threaten future cooperation.

The quote is extremely important: “We have got to keep them healthy, viable, and happy...”

This is relational governance. The relationship itself becomes an economic asset.

### *9. Implicit Contracts Inside Firms*

implicit contracts also exist INSIDE organizations.

Example: young workers

- \* work hard today,
- \* expecting future promotions.

But future promotion usually NOT contractually guaranteed. Still, employees trust the system.

### *10. Problems with Implicit Contracts*

performance evaluation subjective.

Questions:

- \* what counts as “hard work”?
- \* what if supervisor leaves?
- \* what if promotion expectations violated?

Then: trust collapses.

Implicit contracts work only if:

- \* relationship repeated,
- \* reputation matters,
- \* expectations stable,
- \* parties trust continuity.



## Week 04

### PART 1 – Why Entry and Exit Matter

#### 1. Entry

Definition: beginning production and sales in a market by a new firm.

Effects on incumbents:

Effect	Why
Market share falls	entrant takes customers
Prices fall	competition intensifies
Threat alone disciplines incumbents	incumbents cannot raise prices freely

The mere THREAT of entry matters -> A monopolist may charge lower prices simply because: raising prices too much would attract entrants.

#### 2. Exit

Exit means ceasing production in the market.

Effect	Why
Remaining firms gain share.	fewer competitors
Competition weakens	market becomes more concentrated

Entry and exit determine:

- \* long-run competition,
- \* profit sustainability,
- \* market structure.

This is why strategy and industrial economics care so much about them.

#### 3. Greenfield vs Diversifying Entrants

Greenfield Entrants

Completely new firms.

Example: early Netflix.

They start:

- \* from zero reputation,
- \* zero relationships,
- \* zero infrastructure.

Diversifying Entrants

Existing firms entering new markets.

Example: Apple entering streaming already possess:

- \* brand,
- \* cash,
- \* capabilities,
- \* relationships,
- \* customers.

Diversifying entrants face LOWER asymmetry disadvantages.

Example Apple entering streaming:

- \* already has ecosystem,
- \* users,
- \* payment systems,
- \* devices.

A startup streaming company does not. Thus barriers differ dramatically depending on entrant type.



#### *4. Entry and Exit Are Extremely Common*

Important Numbers

In industry with 100 firms:

By Year 5:

- \* 30–40 entrants,
- \* 30–40 exits.

By Year 10:

- \* 60% of entrants gone.
- Huge mortality.

Surviving entrants grow dramatically.

This means: small entry is common, but scaling successfully is difficult.

Entry barriers do NOT necessarily prevent entry.

They may instead:

- \* reduce survival probability,
- \* slow growth,
- \* weaken entrants.

#### *5. Entry as Investment*

This is one of the deepest conceptual sections.

Entry is basically an investment decision under uncertainty.

Two Components

Component	Meaning
Sunk entry costs	irreversible investment
Post-entry profits	future operating returns

Sunk Costs

These are costs that cannot be recovered if entry fails.

Examples:

- \* advertising,
- \* specialized equipment,
- \* market-development expenses,
- \* learning investments.

Sunk costs create asymmetry because incumbents already paid them.

Entrants have NOT.

This becomes the core logic of barriers.

#### *6. Future Conditions Matter*

entrants must evaluate:

- \* future competition,
- \* future technology,
- \* future demand,

NOT current conditions only.



## **PART 2 – Barriers to Entry**

### *7. Two type of barriers*

Type	Meaning
Structural barriers	built into industry structure
Strategic barriers	created by incumbent behavior

#### Structural Barriers

Natural advantages:

- \* scale,
- \* learning,
- \* reputation,
- \* IP,
- \* distribution control.

Exist even without aggressive action.

#### Strategic Barriers

Intentional deterrence:

- \* limit pricing,
- \* excess capacity,
- \* predatory behavior,
- \* bundling.

Require active incumbent strategy.

Barriers work through TWO mechanisms:

Mechanism	Meaning
Raise sunk entry costs	make entry expensive
Reduce post-entry profits	make entry unattractive

### **8. Bain's Typology**

#### **A. Blockaded Entry**

Structural barriers alone prevent entry.

No strategic response needed.

#### Examples

- \* enormous fixed costs,
- \* natural monopolies,
- \* industries already at:

$$P = MC$$

No entrant can profit.

Incumbent does NOT need aggressive deterrence. Structure itself blocks entry.

#### **B. Accommodated Entry**

Barriers low. Deterrence ineffective or too costly.

Incumbents accept entry.

#### Typical Cases

- \* fast-growing industries,
- \* innovation markets,
- \* rapidly changing technologies.

#### Example

Early social media,

AI today arguably.



### C. Deterred Entry

Incumbents actively discourage entry using strategic behavior.

Example:

- \* predatory pricing,
- \* excess capacity,
- \* bundling.

The uncertainty between accommodated and deterred creates room for strategy.

## 9. The Asymmetry Principle

barriers only work because incumbents and entrants are asymmetric.

### Two Core Asymmetries

#### 1. Sunk Costs

Incumbents already paid them. Entrants must still pay them.

#### 2. Relationships

Incumbents already possess:

- \* supplier relationships,
- \* customer trust,
- \* distributor access,
- \* employee networks,
- \* regulator familiarity.

Entrants do not.

Without asymmetry there is NO barrier, because entrants could simply replicate incumbent advantages immediately.

Economies of scale alone are NOT automatically a barrier.

They become barriers only if entrants cannot easily replicate scale.

### 10. Diversifying Entrants Again

Diversifying entrants suffer smaller asymmetries.

Why? Because they can transfer:

- \* reputation,
- \* capabilities,
- \* relationships,
- \* capital,
- \* scale.

Thus incumbents fear them more.

## **PART 3 – Structural Barriers to Entry**

### 1. Three Major Structural Barriers

Barrier

Control of essential resources

Economies of scale/scope/learning

Marketing advantages of incumbency

Core Logic

entrant lacks critical access

entrant too small and inefficient

entrant lacks trust/reputation/access



## **PART A — Control of Essential Resources**

### *2. Essential Resources*

if incumbents control critical inputs or channels, entry becomes difficult.

Examples:

- \* patents,
- \* IP,
- \* scarce resources,
- \* distribution access,
- \* key technologies,
- \* key retail channels.

### *3. Patents and Intellectual Property*

Patents give exclusive legal rights over technology.

This can temporarily block entry because competitors cannot legally use the innovation.

patents are NOT perfect barriers.

Why?

#### Limitation 1 — Limited Duration

Patents expire (typically 20 years).

After expiration entry easier.

Thus patents delay entry, not necessarily prevent it forever.

#### Limitation 2 — Weak Enforcement

In some countries: IP enforcement weak.

Meaning: copying still possible.

#### Limitation 3 — Inventing Around Patents

Entrants may develop alternative technologies.

A patent protects: specific implementation, NOT the entire market need.

### *4. Vertical Foreclosure*

This means incumbent controls critical suppliers or critical distribution channels.

Thus entrants struggle to access them.

#### Upstream Foreclosure

Control key inputs.

Example: De Beers historically controlling diamonds.

#### Downstream Foreclosure

Control distribution.

Example: exclusive retailer relationships.

#### De Beers Example

De Beers controlled large parts of diamond supply, distribution quantities.

This gave power over prices, availability, market access.

#### Limitation 1 — Substitutes Emerge

Entrants may use alternative technologies, synthetic products, substitute channels.

Example: lab-grown diamonds.



Limitation 2 — Foreclosure Can Be Expensive  
Buying/controlling channels costs money.  
Eventually: cost may exceed strategic benefit.

Limitation 3 — Antitrust Intervention  
Governments may intervene if market power excessive.  
Many entry-deterrence strategies create legal risk.

## **PART B — Economies of Scale as Entry Barrier**

### *5. Scale Economies as Barrier*

entrants with small market share face: higher average costs.  
The entrant problem: to become efficient, it needs large market share.  
But to get large market share, it may need low prices first.  
This creates a vicious circle.

### *6. Why Scale Creates Barriers*

Suppose market size limited.  
If entrant enters:  
either stays small → inefficient,  
or  
enters large scale → huge risky investment.  
This is the classic scale-entry problem.

#### Example

Commercial aircraft.  
To achieve efficient scale:  
\* enormous production volume needed,  
\* gigantic fixed costs.  
This strongly discourages entry.

### *7. Scope and Learning Also Matter*

Economies of Scope  
Incumbents share:  
\* advertising,  
\* distribution,  
\* R&D,  
\* logistics  
across many products.  
Entrants usually cannot.

#### Learning Curves

Incumbents accumulated:  
\* tacit knowledge,  
\* process optimization,  
\* reputation,  
\* operational efficiency.  
Entrants start behind.  
This deepens asymmetry.



### 8. *Asymmetry Factor in Scale Economies*

economies of scale are barriers ONLY if entrants cannot easily match scale.

#### WRONG Reasoning

“Scale economies exist → entry impossible.”

False.

#### Correct Reasoning

Scale matters only if matching incumbent scale is:

- \* difficult,
- \* expensive,
- \* risky.

#### Example

Incumbent already has:

- \* reputation,
- \* distribution,
- \* customer base.

Entrant must spend heavily:

- \* advertising,
- \* sales force,
- \* promotions.

Thus scale asymmetry becomes real barrier.

#### Sunk Cost Advantage

Incumbent already incurred fixed costs.

Thus its marginal cost of expanding output is lower.

Entrant still must recover initial investments.

So incumbent can:

- \* cut price,
- \* expand production,
- \* make entrant unprofitable.

This becomes central in limit pricing later.

The barrier is NOT scale itself.

The barrier is asymmetry in the ability to achieve scale profitably.

## **PART C – Marketing Advantages of Incumbency**

### 9. *Brand Reputation*

incumbents benefit from:

- \* perceived quality,
- \* trust,
- \* familiarity.

Especially important for:

- \* differentiated goods,
- \* uncertain quality,
- \* repeated purchases.

Brand reputation is basically an informational asymmetry.

Consumers know incumbents. They do NOT know entrants.



### 10. Umbrella Branding

An incumbent can launch new products under existing brand.

Example: Apple launching

- \* Watch,
- \* AirPods,
- \* Vision Pro.

Consumers transfer trust automatically.

Entrants cannot do this.

Brand reputation reduces customer acquisition cost.

That itself becomes a barrier.

### 11. Distributor Relationships

Retailers prefer:

- \* proven sellers,
- \* trusted brands,
- \* predictable demand.

Unknown entrants:

- \* risky,
- \* uncertain,
- \* less attractive.

Thus incumbents receive:

- \* shelf space,
- \* visibility,
- \* distribution priority.

## **PART D – Exit Barriers**

### 12. What Exit Means

exit means:

- \* stopping production,
- \* redeploying or selling assets.

Exit Decision

Firm compares:

Option	Value
Stay in market	future operating profits
Exit	alternative asset value

### 13. Exit Barriers

situations where firms remain even though, with hindsight, they should never have entered.

Why Stay in a Bad Market?

Because:

- \* sunk costs unrecoverable,
- \* assets highly specific,
- \* governments intervene,
- \* managers emotionally committed,
- \* bankruptcy costly.



Exit barriers can intensify competition because too many firms remain trapped.

This may lead to:

- \* chronic low profitability,
- \* overcapacity,
- \* price wars.

#### 14. Entry vs Exit Price Points

$P_{\text{entry}}$

Price where firm indifferent between:

- \* entering
- \* staying out.

Must cover:

- \* variable costs,
- \* fixed costs,
- \* sunk investment expectations.

$P_{\text{exit}}$

Price where firm just covers variable costs.

$P_{\text{entry}} > P_{\text{exit}}$

Why? Because entry requires recovering sunk costs, while exit ignores sunk costs already incurred.

Between  $P_{\text{exit}}$  and  $P_{\text{entry}}$  Firm should NOT enter, BUT once already inside, better to stay because sunk costs are already gone.

Bankruptcy Nuance

bankruptcy may facilitate exit, BUT diversified firms cannot easily use bankruptcy strategically.

Also governments may resist exits because:

- \* employment,
- \* politics,
- \* strategic industries.

Structural barriers are fundamentally accumulated asymmetry advantages protecting incumbent profitability.

And exit barriers matter because firms trapped inside industries can keep competition intense even when profitability collapses.

### **PART 4 – Strategic Barriers to Entry**

#### 1. The Core Logic of Strategic Deterrence

actions by incumbents to discourage entry.

If entrants expect:

- \* low future profits,
- \* aggressive retaliation,
- \* price wars,

then they may stay out.

Deterrence works through expectations.

The entrant asks: “What will incumbents do AFTER I enter?”

This is fundamentally a strategic-interaction problem.



## 2. Three Major Strategic Barriers

Barrier	Core Logic
Limit pricing	keep prices low to discourage entry
Predatory pricing	temporarily punish entrant after entry
Excess capacity	create credible threat of aggressive expansion

### **PART A – Limit Pricing**

#### 3. What Limit Pricing Is

Limit pricing means incumbents intentionally charge prices lower than monopoly level to discourage entry.

The incumbent sacrifices some short-run profit to protect long-run market power.

Logic

If incumbent sets very high monopoly price, entrants see huge profit opportunity.

If incumbent keeps price lower, entry becomes less attractive.

#### 4. Why Limit Pricing Is Difficult

limit pricing only works if entrants BELIEVE prices will remain low after entry.

The Credibility Problem

Suppose entrant thinks: “Incumbent is only pretending to price low temporarily.”

Then after entrant stays out, incumbent raises prices again.

In that case deterrence fails.

A threat must be credible.

#### 5. How Incumbents Make Limit Pricing Credible

##### A. Low-Cost Structure

If incumbent genuinely has:

- \* lower costs,
- \* scale advantages,
- \* learning advantages,

then low prices are believable.

Entrants think: “They can sustain low prices profitably.”

##### B. Excess Capacity

If incumbent can rapidly expand output, entrant expects price collapse after entry.

This becomes much more credible.

##### C. Reputation for Aggression

If incumbent historically fought entrants aggressively, future threats become believable.

### **PART B – Predatory Pricing**

#### 6. What Predatory Pricing Is

Predatory pricing means pricing aggressively AFTER entry to force rivals out.

Usually:

- \* prices pushed very low,
- \* sometimes below cost.



Goal:

- \* entrant exits,
- \* incumbent later raises prices again.

Limit Pricing	Predatory Pricing
BEFORE entry	AFTER entry
deter entry	punish entrant
preventive	retaliatory

#### 7. Why Predatory Pricing Is Difficult

Price wars are costly for incumbents too. The incumbent loses profits during the fight.

#### HUGE INSIGHT

Predatory pricing only works if incumbent can survive losses better than entrant.

This usually requires asymmetry:

- \* deeper pockets,
- \* lower costs,
- \* easier financing,
- \* stronger scale.

#### 8. Long Purse Theory

Large incumbents may survive losses longer.

Entrants:

- \* run out of cash,
- \* lose investor support,
- \* fail first.

Then incumbent later recovers monopoly profits.

Predatory pricing often fails because:

- \* entrants anticipate it,
- \* investors may fund losses,
- \* antitrust law intervenes.

true predatory pricing is hard to prove and sustain.

### **PART C – Excess Capacity**

#### 9. *What Excess Capacity Means*

The incumbent intentionally maintains unused production capacity.

#### Strategic Logic

Excess capacity creates a credible threat.

Entrants think: “If we enter, incumbent can flood market immediately.”

Thus prices may collapse. This solves the credibility problem.

Without excess capacity incumbent may not realistically expand output quickly, then entrant ignores threats.

#### 10. *Commitment Devices*

A commitment device changes future incentives and makes threats believable.

Example: building large factories publicly signals “We are ready to fight.”

The threat must hurt the incumbent too, otherwise entrant may not believe it.



## **PART D – Learning Curve and Entry Deterrence**

### *11. Learning Curves as Strategic Weapons*

Incumbents may aggressively expand output early, move down learning curve faster, lower future costs. This creates durable cost asymmetry.

Learning effects create dynamic barriers.

Entrants are not only behind today, they may remain behind for years.

## **PART E – Network Effects (VERY IMPORTANT)**

### *12. What Network Effects Are*

A product becomes more valuable as more users adopt it.

#### Direct Network Effects

More users directly increase value.

Example: WhatsApp.

If nobody uses it, worthless.

#### Indirect Network Effects

More users attract:

- \* developers,
- \* complements,
- \* content creators.

Example: iPhone ecosystem.

### *13. Why Network Effects Create Entry Barriers*

Entrants face: chicken-and-egg problem.

Users ask: “Why join empty network?”

Developers ask: “Why build for tiny user base?”

Thus incumbents become extremely difficult to displace.

## **PART F – Switching Costs**

### *14. What Switching Costs Are*

Costs customers face when changing providers.

Can be:

- \* financial,
- \* learning,
- \* compatibility,
- \* psychological.

#### Examples

- \* learning new software,
- \* moving files,
- \* rebuilding playlists,
- \* retraining employees,
- \* changing ecosystems.

Switching costs reduce entrant ability to attract customers, even if entrant product better.



## **PART G – Strategic Complementarity**

### *15. Barriers Reinforce Each Other*

Real barriers rarely appear alone.

Example: Apple combines

- \* brand,
- \* switching costs,
- \* network effects,
- \* learning,
- \* scale,
- \* ecosystem control.

This creates layered asymmetry.

## **PART H – Limits of Entry Deterrence**

Why Barriers Erode

- \* technology changes,
- \* regulation changes,
- \* substitutes emerge,
- \* customer preferences shift,
- \* incumbents become complacent.

Kodak Example

Strong historical barriers, but digital photography changed industry structure.

Huge strategic lesson.

## **Week 05**

### **PART 1 – What Industry Analysis REALLY Is**

#### *1. Why We Conduct Industry Analysis*

Purpose	Meaning
Assess profitability	“Is this industry attractive?”
Understand causes	“Why is profitability high/low?”
Predict change	“What opportunities/threats may emerge?”

Industry analysis is NOT just descriptive. It is predictive.

The real strategic question is: “How will profitability evolve?”

#### *2. Strategy and Performance*

Firm Performance = Industry Profitability + Firm Strategy

Deep Meaning

Performance comes from TWO levels:

Level	Meaning
Industry effect	some industries structurally profitable
Firm effect	some firms outperform rivals

quote Buffett:

“When an industry with a reputation for tough economics meets a manager with a reputation for excellent performance, it’s usually the industry that keeps its reputation intact.”



Meaning: Even brilliant managers struggle in

- \* airlines,
- \* commodity businesses,
- \* supermarkets.

Because industry structure dominates.

This is foundational Porter logic.

## **PART 2 – Porter’s Five Forces**

### *3. The Five Forces*

Force	Core Question
Internal rivalry	How intense is competition?
Threat of entry	Can new firms enter easily?
Substitutes	Can customers switch to alternatives?
Supplier power	Can suppliers capture value?
Buyer power	Can buyers capture value?

The goal is to understand what determines long-run industry profitability.

Porter’s model is fundamentally about value appropriation.

The question is: “Who captures the value created?”

Not merely: “Who competes?”

## **PART 3 – Important Caveats**

### **Caveat 1 – Demand Assumed Fixed**

The model assumes industry demand already exists.

Meaning Porter focuses on dividing value not creating demand.

Porter is mostly zero-sum oriented.

Blue Ocean Strategy criticizes exactly this.

### **Caveat 2 – Firms Not Equally Exposed**

The framework treats firms similarly.

Reality: some firms occupy protected niches.

Example: Ferrari vs mass auto.

Both “cars,” very different exposure.

### **Caveat 3 – Government Missing**

Governments:

- \* regulate,
- \* subsidize,
- \* protect,
- \* restrict entry.

Yet Porter does not treat government as explicit force.

### **Caveat 4 – Qualitative, Not Numerical**

forces cannot easily aggregate into one score.

The framework helps:

- \* reasoning,
- \* identifying mechanisms,
- \* understanding interactions.

Not mechanical scoring.



#### 4. Best Use of Five Forces

best for:

- \* static analysis,
- \* understanding implications of change.

Meaning:

- \* current structure,
- \* how forces may evolve.

### **PART 4 — How to Apply Five Forces**

#### Step 1 — Define the Market

The market is the narrowest set of firms constraining each other's decisions.

Example	Why
Ferrari vs Peugeot	different customer segments
Esselunga vs Deliveroo	different channels
Air France vs Southwest	different geographies/business models

Example

Tesla vs Ducati.

Both transportation, NOT close rivals.

But may still be substitutes at broader level.

#### Step 2 — Identify Players

The slides say identify:

- \* rivals,
- \* entrants,
- \* substitutes,
- \* complements,
- \* suppliers,
- \* buyers.

#### Step 3 — Assess Each Force

Question: Is the force strong enough to reduce profitability?

Not: "Does competition exist?"

All industries have competition.

The issue is profit erosion.

#### Step 4 — Examine Interactions

Forces reinforce each other.

Example:

- \* low switching costs
  - \* many firms
  - \* excess capacity
- brutal price competition.



## **PART 5 – Internal Rivalry**

Porter often considered rivalry the central force.

### *5. What Internal Rivalry Means*

Competition among existing firms for:

- \* market share,
- \* customers,
- \* profits.

Rivalry has TWO forms:

Type	Effect
Non-price competition	raises costs
Price competition	reduces revenues

## **PART A – Non-Price Competition**

### *6. Non-Price Competition*

making products more appealing.

Methods:

- \* branding,
- \* advertising,
- \* innovation,
- \* quality,
- \* design,
- \* service.

Effect on Profits

Raises:

- \* fixed costs,
- \* sometimes variable costs.

BUT may also increase customer willingness to pay.

Non-price competition is often LESS destructive than price competition, because firms may pass costs into higher prices.

Example Industries

- \* luxury fashion,
- \* investment banking,
- \* video games.

These industries compete intensely, yet remain profitable.

Why? Because competition centers on:

- \* differentiation,
- \* branding,
- \* quality,  
not
- \* price wars.

## **PART B – Price Competition**

### *7. Price Competition*

Competing by lowering prices.

Why It's Dangerous -> Lower prices directly reduce margins, industry revenue.

If rivals match cuts everyone suffers.



Price competition is especially destructive when industry demand elasticity is high.  
Meaning: price cuts do not sufficiently expand total demand.

### **PART C – Soft Drink Example**

At First Glance rivalry seems enormous:

- \* constant advertising,
- \* shelf battles,
- \* promotions,
- \* global campaigns.

But Industry Remains Highly Profitable because rivalry is mostly NON-PRICE.

Real average selling prices rise over time, even beyond inflation.

Meaning Competition:

- \* strengthens brands,
  - \* increases willingness to pay,
  - \* reinforces loyalty,
- rather than destroying margins.

### **PART 6 – What Makes Rivalry Destructive?**

#### *1. Factors Heating Up Price Competition*

##### **FACTOR A – Many Sellers**

more sellers increase probability that at least one firm becomes dissatisfied.

With many firms:

- \* coordination harder,
- \* incentives diverge,
- \* someone may try to gain share aggressively.

Small firms often believe: “Large incumbents won’t respond aggressively.”

This encourages price cuts.

##### **Revenue-Destruction Effect**

Large firms know: price wars destroy huge revenue because they own large shares.

Small firms lose less revenue. Thus small firms more likely to initiate cuts.

##### **FACTOR B – Stagnant or Declining Industry**

If market growth low firms cannot grow naturally.

Thus to expand, they must steal customers.

Growth softens rivalry because everyone can grow together. Decline intensifies rivalry because growth becomes zero-sum.

##### **FACTOR C – Different Costs Across Firms**

efficient firms may cut prices aggressively because weaker rivals cannot survive.

Suppose:

Firm A cost = 5

Firm B cost = 9

If A cuts price to 7:

- \* A still profitable,
- \* B loses money.

Thus cost asymmetry can trigger wars.



#### FACTOR D — Excess Capacity

If firms already possess unused productive capacity, they can expand output quickly. Then price cuts become tempting because additional production has low marginal cost.

Fixed costs already sunk. So firms think: “Better to sell at low margin than leave capacity idle.” This often creates brutal price wars.

#### FACTOR E — Undifferentiated Products / Low Switching Costs

If products nearly identical customers switch easily after tiny price differences.

#### Cross-Price Elasticity

If small price reduction → huge customer switching, then price competition extremely dangerous.

#### FACTOR F — Prices Hard to Observe or Slow to Adjust

Suppose one firm secretly discounts.

Rivals react slowly. Then the cutter temporarily steals large share. Thus hidden discounting becomes attractive.

#### FACTOR G — No Price Leadership / No Cooperative History

##### Price Leadership

One dominant firm implicitly sets acceptable industry price.

Others follow. This stabilizes pricing.

##### Without Leadership

Firms:

- \* uncertain,
- \* distrustful,
- \* less coordinated.

Thus price cuts more likely.

#### FACTOR H — Strong Exit Barriers

If firms cannot exit easily:

- \* overcapacity persists,
- \* too many competitors remain,
- \* firms fight desperately to survive.

#### FACTOR I — High Industry Price Elasticity

If total industry demand grows strongly when prices fall, price cuts become more attractive, because industry revenue may not collapse as much.

If elasticity low price cuts mostly redistribute existing customers, destroying profits.

#### DEEP SYNTHESIS OF PRICE RIVALRY

Price wars become especially likely when industries have:

- \* many firms,
- \* low growth,
- \* excess capacity,
- \* low differentiation,
- \* easy switching,
- \* difficult exit,
- \* weak coordination.



## **PART 7 – Industry Concentration**

### *2. What Concentration Means*

Concentration measures how market share is distributed among firms.  
Concentration is NOT simply “number of firms.”  
Distribution matters too.

#### Example

Industry A: 2 firms each 50%.  
Industry B: 1 firm 95% many tiny firms.

Both have 2+ firms,  
but concentration radically different.

### *3. Concentration Ratio (CRN)*

The slides define:  $CR_N = MS_1 + MS_2 + \dots + MS_N$   
Where:  $MS_i$  = market share of firm i.

#### Example

Suppose Top 4 firms:

\* 35%

\* 25%

\* 15%

\* 5%

Then:  $CR_4 = 0.35 + 0.25 + 0.15 + 0.05 = 0.80$

Meaning: top 4 control 80%.

### *4. Main Weakness of CR*

CR ignores distribution INSIDE top firms.

#### Example

2024: 35%, 25%, 15%, 5%.

2025: 35%, 35%, 5%, 5%.

CR5 unchanged BUT market became more concentrated.

### *5. Herfindahl Index (HHI)*

$$H = MS_1^2 + MS_2^2 + \dots + MS_n^2$$

Squaring gives much more weight to large firms.

Thus dominant firms matter more.

#### Monopoly

100%.

$$H = 1^2 = 1$$

Maximum concentration.

#### Perfect Competition

Thousands of tiny firms.

$$H \rightarrow 0$$



## 6. Equivalent Number of Firms

$1/H$

This gives number of equal-sized firms producing equivalent concentration.

Example

$H = 0.25$

Then:  $1/H = 4$

Equivalent to: 4 equal-sized firms.

## 7. Typical Herfindahl Ranges

Market Structure	H Range
Perfect competition	0–0.20
Oligopoly	0.20–0.60
Monopoly	0.60–1

High concentration does NOT automatically imply high profitability, because rivalry still matters.

Example

Airlines: often concentrated, yet low profits.

Why?

- \* brutal price competition,
- \* excess capacity,
- \* low differentiation.

Example

Soft drinks: moderately concentrated, VERY profitable.

Why?

- \* strong differentiation,
- \* non-price rivalry,
- \* brand loyalty.

## **PART 8 – Real Industry Examples**

Browser Market Example

$HHI \approx 0.51$ .

Very concentrated.

Chrome dominates.

This suggests:

- \* strong network effects,
- \* ecosystem lock-in,
- \* default advantages.

European Car Market

$HHI \approx 0.125$ . Low concentration despite famous brands.

Why? many manufacturers.

Yet rivalry still manageable because:

- \* differentiation,
- \* segmentation,
- \* branding.



Soft Drinks

HHI  $\approx$  0.22. Moderate concentration.

But high profitability.

Again non-price rivalry dominates.

This example is extremely important for reasoning questions.

## **PART 9 – Threat of Entry**

### *1. Why Entry Matters*

Even if current rivalry low, future entrants may still discipline incumbents.

Potential competition matters almost as much as actual competition.

Why? Because incumbents know if profits become “too attractive,” entry may occur.

Thus threat of entry limits pricing power.

### *2. Porter’s Core Entry Logic*

Variable

Meaning

Barriers to entry      how difficult entry is

Expected retaliation    how aggressively incumbents respond

Entry Can Be Discouraged By:

A. Structural difficulty

\* scale economies,

\* learning,

\* switching costs,

\* network effects,

\* branding,

\* capital intensity.

B. Strategic fear

\* limit pricing,

\* price wars,

\* excess capacity,

\* aggressive retaliation.

### *3. Sources of Entry Barriers*

A. Economies of Scale

Entrants start small, thus higher costs. If MES large relative to market size: entry difficult.

B. Product Differentiation

Strong brands create:

\* loyalty,

\* trust,

\* lower customer willingness to switch.

C. Capital Requirements

Industries requiring:

\* huge plants,

\* R&D,

\* infrastructure,

\* regulatory compliance

discourage entry.



#### D. Switching Costs

Customers locked into:

- \* ecosystems,
- \* software,
- \* habits,
- \* training.

This weakens entrant demand.

#### E. Access to Distribution

Entrants may struggle obtaining:

- \* shelf space,
- \* logistics,
- \* distributors,
- \* app-store visibility.

#### F. Cost Advantages Independent of Scale

Incumbents may possess:

- \* patents,
- \* learning curves,
- \* favorable locations,
- \* proprietary data,
- \* government relationships.

Entrants cannot quickly replicate them.

#### G. Government Policy

Licenses, regulation, permits, standards.

Sometimes government itself creates barriers.

It combines:

- \* ecosystem,
- \* switching costs,
- \* brand,
- \* network effects,
- \* scale,
- \* app store control.

The strongest positions are layered systems.

#### 4. *Expected Retaliation*

Even if barriers moderate, entry may still fail if incumbents retaliate aggressively.

Signals Entrants Watch

Signal	Interpretation
History of price wars	incumbent aggressive
Excess capacity	can flood market
Low margins already little	room for entrants
Large cash reserves	can survive fights

#### 5. Structural vs Strategic Entry Barriers

Structural	Strategic
natural asymmetries	intentional deterrence
persistent	behavior-based
embedded in industry	created by incumbents



## *PART 10 – Threat of Substitutes*

### *6. What a Substitute Is*

A substitute satisfies the same customer need through a different product/technology.

Examples

Product	Substitute
Coffee	tea
Netflix	videogames/social media
Airlines	trains
Butter	olive oil
Hotels	Airbnb

### *7. Why Substitutes Matter*

Substitutes cap prices. If prices rise too much customers switch away.

Example

If Netflix becomes expensive:

users may:

- \* game,
- \* watch YouTube,
- \* use TikTok,
- \* pirate content.

Thus pricing power constrained. Substitutes limit industry profitability even without direct rivalry.

### *8. Two Key Determinants of Substitute Threat*

Variable	Meaning
Relative price-performance	is substitute attractive?
Switching costs	how difficult switching is

#### Relative Price-Performance

Customers compare:

- \* benefits,
- \* convenience,
- \* cost.

Example

High-speed trains vs airlines:

- \* city-center access,
- \* lower hassle,
- \* environmental appeal.

Thus short-haul flights threatened.

#### Switching Costs

Even strong substitutes may fail if switching difficult.

Example: enterprise software ecosystems.

Substitute pressure often evolves slowly through:

- \* technology shifts,
- \* changing preferences.

This makes substitutes strategically dangerous because incumbents underestimate them.



### 9. Kodak Example

Kodak did NOT mainly fail because Fuji is cheaper.  
It failed because digital photography substituted film entirely.  
This is an industry-substitution collapse.

## **PART 11 – Supplier Power**

### 10. Supplier Power Logic

Suppliers strong when they can:

- \* raise input prices,
- \* reduce quality,
- \* limit supply,  
without losing business.

### 11. Sources of Supplier Power

#### A. Supplier Concentration

Few suppliers serving many buyers.  
Example: TSMC in advanced chips.

#### B. Lack of Substitutes

No alternative input.  
Example: ASML EUV lithography machines.

#### C. Switching Costs

Changing supplier difficult:  
\* redesign,  
\* retraining,  
\* certification.

#### D. Supplier Differentiation

Supplier provides unique quality or technology.

#### E. Threat of Forward Integration

Supplier could enter buyer's industry.  
Example: Netflix producing original content instead of licensing.

### 12. Supplier Power Example – TSMC

TSMC has:

- \* learning advantages,
- \* scale,
- \* tacit know-how,
- \* limited competitors.

Thus huge bargaining power over:

Apple,  
Nvidia,  
AMD.



## **PART 12 – Buyer Power**

### *13. Buyer Power Logic*

Powerful buyers can:

- \* demand discounts,
- \* higher quality,
- \* better terms,
- \* extra services.

Thus industry margins shrink.

### *14. Sources of Buyer Power*

#### A. Buyer Concentration

Few buyers purchasing huge volume.

Example: Walmart negotiating with suppliers.

#### B. Standardized Products

If products undifferentiated buyers easily switch.

This increases power enormously.

#### C. Low Switching Costs

Easy supplier replacement.

#### D. Buyer Information

Buyers understand costs, alternatives and market conditions.

This weakens seller bargaining power.

#### E. Threat of Backward Integration

Buyer may produce input itself.

This weakens supplier leverage.

Buyer power strongest in: commodity industries.

Weakest in: luxury differentiation.

Example

Hermès customers: very low bargaining power.

Commodity steel buyers: very high power.

## **PART 13 – Complements**

### *15. What Complements Are*

Products whose value increases together.

Examples:

- \* iPhone + App Store,
- \* PlayStation + games,
- \* printers + ink,
- \* EVs + charging stations.

Complements increase: industry value creation.

Substitutes decrease it.

### *16. Complementors Can Still Capture Value*

Even though complements expand value, they may also gain bargaining power.

Example: Google Android ecosystem partners,  
game developers,  
payment systems.



## **PART 14 — Final Industry Analysis Logic**

### 17. Industry Profitability Depends On Entire System

The strongest industries typically combine:

- \* moderate rivalry,
- \* high entry barriers,
- \* weak substitutes,
- \* weak buyer power,
- \* weak supplier power,
- \* strong differentiation,
- \* switching costs,
- \* complements.

Example — Luxury Industry

Force	Result
Rivalry	mostly non-price
Entry	difficult reputation building
Substitutes	weak emotional substitutes
Buyers	low power
Suppliers	often weak
Complements	branding ecosystem

Result: high profitability.

Example — Airlines

Force	Result
Rivalry	brutal price competition
Entry	moderate
Substitutes	trains/remote work
Buyers strong	price sensitivity
Suppliers	Boeing/Airbus strong
Exit barriers	huge

Result: terrible profitability.

## **WEEK 06 — STRATEGIC POSITIONING & COMPETITIVE ADVANTAGE**

### **2. STRATEGIC POSITIONING**

Definition: A strategic position is a coherent way of competing that allows a firm to create and capture value differently from rivals.

Strategic positioning is NOT:

- \* one isolated decision,
- \* one product feature,
- \* one marketing campaign.

It is a SYSTEM of aligned choices.

Airline Example

Southwest

Position:

- \* low-cost,
- \* efficient,
- \* point-to-point,
- \* standardized fleet.



JetBlue

Position:

- \* better customer experience,
- \* entertainment,
- \* differentiation.

Same industry → different positions.

Firms inside the same industry can serve different customers, compete differently and create value differently.

### 3. COMPETITIVE ADVANTAGE

Definition: Competitive advantage exists when a firm earns higher economic profit than rivals in the same market.

#### IMPORTANT DISTINCTION

Accounting Profit

Revenue – accounting costs.

Economic Profit

Revenue – ALL economic costs, including opportunity cost of capital and investor required returns.

A firm can have positive accounting profit BUT zero economic profit. This means investors only receive their normal expected return.

Formula

Firm Economic Profit = Average Rival Profit + Competitive Advantage

### 4. THE TWO CONDITIONS FOR COMPETITIVE ADVANTAGE

A firm needs:

Condition 1 – Create More Economic Value Than Rivals

$B - C$

Where:

- \*  $B$  = willingness to pay,
- \*  $C$  = economic cost.

Condition 2 – Capture Part of That Value

The firm must retain some value as:

- \* profit,
- \* producer surplus.

Creating value alone is NOT enough.

Example: a firm may innovate greatly, but competition may transfer all benefits to customers.

### 5. CONSUMER SURPLUS

Formula

Consumer Surplus =  $B - P$

Where:

- \*  $B$  = willingness to pay,
- \*  $P$  = price.

Meaning



Consumer surplus = extra value customers feel they receive.

Example

If:

\*  $B = 150$

\*  $P = 100$

Then:  $150 - 100 = 50$

consumer surplus.

Consumers buy when:  $B - P > 0$

## 6. WILLINGNESS TO PAY (B)

Definition: Maximum amount a consumer would pay for a product.

Depends on:

- \* objective functionality,
- \* quality,
- \* brand,
- \* emotions,
- \* reputation,
- \* status.

Willingness to pay is: SUBJECTIVE.

Luxury products often rely heavily on:

- \* symbolism,
- \* branding,
- \* identity.

Taylor Swift Example

Official ticket prices: far below resale prices.

Meaning: true willingness to pay was much higher.

Thus huge consumer surplus existed.

Scalpers captured part of it.

## 7. ECONOMIC VALUE CREATED

Economic Value Created =  $B - C$

Where:

- \*  $B$  = willingness to pay,
- \*  $C$  = economic cost.

This is NOT profit. It is TOTAL value generated by the transaction.

Decomposition Formula

$$B - C = (B - P) + (P - C)$$

Meaning:

Component	Meaning
$B - P$	consumer surplus
$P - C$	producer surplus/profit

## 8. VALUE CREATION VS VALUE CAPTURE

Value Creation: How much total surplus exists.  $B - C$

Value Capture: How much of that surplus the firm keeps.  $P - C$



A firm may create enormous value, capture very little. Competition may transfer value to customers, suppliers, distributors.

### 9. SOVALDI EXAMPLE

Variable	Value
B	\$130,000
P	\$84,000
C	\$1,258

Consumer Surplus:  $130,000 - 84,000 = 46,000$

Producer Surplus:  $84,000 - 1,258 = 82,742$

Total Value Created:  $130,000 - 1,258 = 128,742$

The controversy was NOT whether value existed.

The controversy was HOW value was divided.

### 10. WHY COMPETITION DESTROYS PROFIT

If firms offer identical value competition pushes P to C

Meaning: Producer surplus disappears.

Customers capture almost all value.

To sustain profit a firm must create MORE value than rivals.

### 11. HONDA VS NISSAN EXAMPLE

Honda		Nissan	
Variable	Value	Variable	Value
B	30,500	B	38,000
P	21,000	P	31,000
C	17,000	C	19,000
B-C	13,500	B-C	19,000

Initially consumers prefer Honda because: consumer surplus higher BUT Nissan creates MORE value overall.

#### Price Competition

Nissan can cut prices longer because its: B - C advantage is larger.

Honda eventually reaches:  $P = C \rightarrow$  zero profit.

The winner is NOT necessarily: the firm initially preferred by consumers.

The winner is often: the firm with superior value creation.

### 12. ADDED VALUE

Formula

Economic Value Created =  $B - C$

Competitive advantage is fundamentally RELATIVE. It depends on being better than alternatives.

#### Nissan Example

$19,000 - 13,500 = 5,500$

Nissan's extra value:  $\approx$  source of competitive advantage.

### 13. GENERIC STRATEGIC POSITIONS

#### A. DIFFERENTIATION

Increase: B more than costs rise.

Sources

\* quality,



- \* branding,
- \* design,
- \* service,
- \* innovation,
- \* customer experience.

#### HUGE MCQ TRAP

Differentiation  $\neq$  “high quality at any cost.”

Correct logic:  $\Delta B > \Delta C$

#### B. COST LEADERSHIP

Lower: C

while maintaining acceptable: B

Sources

- \* scale economies,
- \* automation,
- \* process efficiency,
- \* learning,
- \* lean systems.

Cost leadership  $\neq$  “cheap low quality.”

#### C. FOCUS STRATEGY

Create especially high: B - C for a specific niche.

Examples

- \* Ferrari,
- \* luxury brands,
- \* niche software,

Focus  $\neq$  “small market.”

It means: superior fit for a segment.

### 14. VALUE MAPS

Value maps compare:

- \* quality,
- \* price,
- \* consumer surplus.

Products on same indifference curve: provide equal surplus.

Competitive Advantage Often Means

Better:

- \* price-quality ratio,
- \* customer surplus,
- \* value proposition.

### 15. VALUE CHAIN

Definition: Sequence of activities creating value inside the firm.

PRIMARY ACTIVITIES

Directly involved in production/delivery:

- \* inbound logistics,
- \* operations,



- \* outbound logistics,
- \* marketing,
- \* service.

#### SUPPORT ACTIVITIES

Enable primary activities:

- \* HR,
- \* technology,
- \* procurement,
- \* infrastructure.

Every activity increases cost may increase willingness to pay.

Goal:  $\Delta B > \Delta C$

### 16. CONFIGURING ACTIVITIES DIFFERENTLY

Competitive advantage often comes from performing DIFFERENT activities, not just performing same activities slightly better.

Duolingo Example

- \* mobile-first,
- \* gamified,
- \* AI-based learning.

Different activity system from traditional education.

Enterprise Example

Focused on replacement rentals, not airport rentals.

Different strategic configuration.

### 17. RESOURCES

Definition: Firm-specific assets.

Examples:

- \* patents,
- \* brands,
- \* installed base,
- \* culture,
- \* proprietary data.

Resources Affect

Resource	Effect
Brand	raises B
Patent	lowers C
Data	improves decisions
Reputation.	raises trust

Resources are difficult to transfer without losing value.

### 18. CAPABILITIES

Definition: Activities the firm performs especially well.

Examples

- \* Zara fast-fashion coordination,
- \* Apple ecosystem integration,
- \* McDonald's franchising execution.



Capabilities are:

- \* rooted in routines,
- \* tacit,
- \* hard to imitate,
- \* survive employee turnover.

Capabilities are often MORE important than resources because they are harder to copy.

### 19. TACIT KNOWLEDGE

One of the strongest barriers to imitation.

Tacit capabilities:

- \* difficult to describe,
- \* difficult to teach,
- \* difficult to observe.

Even firms themselves may not fully understand why they outperform rivals.

## WEEK 07

### 2. GENERIC STRATEGIES

three generic strategic positions:

Strategy	Core Logic
Cost Leadership	Lower cost structure
Benefit Leadership	Higher willingness to pay
Focus	Superior fit for a niche

All three aim to maximize: B - C

The difference is WHICH SIDE improves.

### 3. COST LEADERSHIP

Definition: The firm creates value mainly through lower economic cost.

$C_{firm} < C_{rivals}$  while maintaining acceptable benefits.

Cost leadership does NOT mean:

- \* “bad quality,”
- \* “cheap products,”
- \* “lowest price always.”

Correct definition: lower costs while preserving acceptable willingness to pay.

### 4. TYPES OF COST LEADERSHIP

#### A. BENEFIT PARITY

$B_{firm} \approx B_{rivals}$  BUT  $C_{firm} < C_{rivals}$

Same perceived value, lower cost.

Examples

- \* commodity industries,
- \* utilities,

Consumers perceive little/no sacrifice. Thus lower prices strongly attract demand.

#### B. BENEFIT PROXIMITY

$B_{firm} < B_{rivals}$  slightly, BUT  $C_{firm} \ll C_{rivals}$

Slightly lower quality, dramatically lower costs.

Examples



- \* Ryanair,
- \* low-cost furniture,

There is an ACCEPTABILITY THRESHOLD. If perceived quality falls too much strategy collapses.

Ryanair succeeds NOT because people love low comfort. It succeeds because comfort remains “good enough.”

### C. QUALITATIVELY DIFFERENT PRODUCT

The product is cheaper, BUT also different in attributes.

Examples

- \* Revolut vs traditional banks,
- \* Bic vs fountain pens,
- \* streaming vs cinema.

This is NOT “inferior quality.” It is a different value proposition.

## 5. HOW COST LEADERS CAPTURE VALUE

The key power of a cost leader:

$$C_{firm} < C_{rivals}$$

Thus the firm can:

- \* charge lower prices,
- \* increase consumer surplus,
- \* still remain profitable.

Cost leadership creates pricing flexibility.

Example

If rival cost =100

and your cost =70

you can:

- \* price at 90,
- \* gain demand,
- \* still earn profit.

Rival loses money.

## 6. BENEFIT LEADERSHIP

Definition: The firm creates superior willingness to pay.

$$B_{firm} > B_{rivals}$$

Examples

- \* Starbucks
- \* Rolex
- \* Hermès

Benefit leadership is NOT “luxury only.” -> Any firm increasing willingness to pay differentiates.

## 7. TYPES OF BENEFIT LEADERSHIP

### A. COST PARITY

$$C_{firm} \approx C_{rivals} \text{ BUT } B_{firm} > B_{rivals}$$

The ideal differentiator.

More value, same cost structure. This is strategically powerful because extra benefit does NOT require major extra costs.



## B. COST PROXIMITY

$C_{firm} > C_{rivals}$  slightly, BUT  $B_{firm} >> B_{rivals}$

Some extra costs justified by much larger willingness to pay.

Examples

- \* premium restaurants,
- \* luxury materials,
- \* premium ingredients.

The extra benefit must exceed the extra cost burden.

## C. SUBSTANTIALLY HIGHER BENEFIT

Both:

- \* costs,
- \* willingness to pay,  
become very high.

Examples

- \* Rolex,
- \* Hermès,
- \* Ferrari.

Luxury willingness to pay often comes from:

- \* symbolism,
- \* exclusivity,
- \* status,
- \* identity,  
not only functionality.

## 8. HOW BENEFIT LEADERS CAPTURE VALUE

Differentiators charge premium prices, maintain high margins BUT customers must still obtain positive surplus.

Key Condition

$$\Delta B > \Delta P$$

Otherwise customers switch away.

Even luxury customers require positive perceived value.

## 9. VERTICAL VS HORIZONTAL DIFFERENTIATION

### VERTICAL DIFFERENTIATION

Consumers generally agree one product objectively better.

Examples

- \* Ferrari vs economy car,
- \* 4K TV vs old CRT,
- \* faster processor.

### HORIZONTAL DIFFERENTIATION

Different consumers value different attributes.

Examples

- \* Android vs iPhone,
- \* Tesla vs BMW SUV,
- \* Pepsi vs Coke.



Horizontal differentiation reduces cross-price elasticity. This softens price competition.

Horizontal differentiation is one of the strongest protections against commoditization.

## **10. MARGIN VS SHARE STRATEGY**

### **MARGIN STRATEGY**

- \* high price,
- \* high profit per unit,
- \* smaller market share.

### **SHARE STRATEGY**

- \* lower margins,
- \* larger customer base,
- \* volume expansion.

Neither is automatically correct.

Choice depends on elasticity, strategic position, industry dynamics.

## **11. ELASTICITY**

Definition: Sensitivity of demand to price changes.

### **HIGH ELASTICITY**

Small price reduction → huge volume increase.

### **LOW ELASTICITY**

Price changes → little demand response.

Elasticity determines whether aggressive pricing makes sense.

## **12. COST ADVANTAGE + LOW ELASTICITY**

Cost Advantage + Low Elasticity → MARGIN strategy.

Price cuts do NOT increase demand enough.

Thus better to keep prices high and capture margins.

Example

Saudi Aramco.

Extraction costs tiny, oil demand relatively inelastic short-run.

Thus huge margins preferable.

## **13. COST ADVANTAGE + HIGH ELASTICITY**

Cost Advantage + High Elasticity → SHARE strategy.

Lower prices massively expand volume.

Volume then strengthens:

- \* scale economies,
- \* learning economies.

This creates self-reinforcing cost leadership.

## **14. BENEFIT ADVANTAGE + LOW ELASTICITY**

Benefit Advantage + Low Elasticity → MARGIN strategy.

Customers tolerate premium pricing.



Adobe Example

Switching costs:

- \* workflow dependence,
- \* retraining,
- \* compatibility.

Thus customers tolerate high prices.

## 15. BENEFIT ADVANTAGE + HIGH ELASTICITY

Benefit Advantage + High Elasticity → SHARE strategy.

Customers value product BUT remain price sensitive. Thus moderate pricing maximizes adoption.

Example

Toyota -> Slight premium, massive scale.

Toyota sacrifices extreme margins to preserve scale, learning, market dominance.

## 16. ELASTICITY IS STRATEGICALLY SHAPED

Elasticity is NOT fixed.

Firms can reduce elasticity through:

- \* branding,
- \* switching costs,
- \* ecosystems,
- \* loyalty,
- \* differentiation.

The best firms strategically CREATE inelastic demand.

Examples

- \* Apple ecosystem,
- \* Adobe subscriptions.

## 17. FOCUS STRATEGY

Definition: Creating especially high B - C for a narrow customer segment.

Focus does NOT mean “small market.”

It means specialized fit, unusually strong value proposition.

Examples

- \* Ferrari
- \* specialized software
- \* luxury watches

Focus strategies often succeed because generalist competitors cannot optimize perfectly for niche needs.

## 18. CHOOSING A STRATEGY

strategy choice depends on:

- \* firm capabilities,
- \* elasticity,
- \* customer preferences,
- \* market structure.

Not every firm can successfully pursue every strategy.



### Examples

Hermès cannot suddenly become a discount retailer.

IKEA cannot suddenly become luxury handcrafted furniture.

Strategies require internally consistent activity systems.

## 19. STRATEGIC COHERENCE

A strategy succeeds only if:

- \* pricing,
- \* operations,
- \* branding,
- \* supply chain,
- \* customer expectations,
- all align.

Southwest Example

- \* single aircraft type,
- \* low turnaround,
- \* point-to-point,
- \* no luxury service.

The strongest strategies are systems of reinforcing activities.

## 20. “STUCK IN THE MIDDLE”

Porter warning firms with unclear positioning often fail.

Why? Because they lack cost advantage AND lack differentiation.

Examples

A luxury brand lowering quality loses exclusivity still not cost efficient.

A budget airline adding luxury raises costs, weakens low-cost logic.

Hybrid strategies fail ONLY if they are internally inconsistent.

## 21. DUAL ADVANTAGE

Sometimes firms achieve BOTH:

- \* lower cost,
- \* higher benefit.

Conditions

### A. SCALE + LEARNING

Large firms may reduce costs, improve quality simultaneously.

### B. TECHNOLOGICAL INNOVATION

Innovation may improve benefit, lower cost.

### C. INEFFICIENT RIVALS

If competitors inefficient, a superior firm may dominate on both dimensions.

The productivity frontier can shift. Thus tradeoffs are not always fixed.

## 22. GILLETTE CASE

Gillette Position

Traditional differentiation:

- \* quality,
- \* innovation,
- \* premium pricing.



Entrants

- \* Dollar Shave Club,
- \* Harry's.

Entrants changed:

- \* convenience,
- \* branding,
- \* identity,
- \* distribution.

NOT just blade quality.

Dollar Shave Club

Advantages:

- \* subscription model,
- \* anti-corporate branding,
- \* convenience,
- \* lower price.

Harry's

Advantages:

- \* aesthetic design,
- \* affordability,
- \* supermarket presence,
- \* vertical integration.

This is horizontal differentiation. Consumers cared about different attributes.

Gillette Mistake

Initially maintained high-margin strategy. But demand proved more elastic than expected. Thus Gillette later cut prices.

Differentiation can erode culturally, not only technologically.

### **23. RYANAIR CASE**

Perfect cost-leadership example.

Strategy

Benefit proximity: acceptable service, ultra-low costs.

Why It Works

Air travel demand: highly elastic.

Lower prices → huge volume increase.

Volume → stronger scale economies.

Ryanair's advantage is self-reinforcing.

**ACCEPTABILITY THRESHOLD**

Consumers tolerate lower comfort BUT NOT unsafe/unreliable service.

Cost leadership fails if benefit falls BELOW acceptable minimum.



## **WEEK 08**

### **PART 1 – THE SUSTAINABILITY OF COMPETITIVE ADVANTAGE**

#### 2. Sustainability

Definition: The ability of a firm to preserve superior performance over time.

Creating advantage is relatively common. Sustaining it is rare. This is why many startups disappear, many innovations become commoditized.

### **PART 2 – THE FEDEX EXAMPLE**

FedEx created overnight delivery in 1973.

Initially near monopoly, huge advantage.

Then UPS:

- \* copied procedures,
- \* studied operations,
- \* followed FedEx trucks,
- \* leveraged existing infrastructure.

If value creation is observable, it is often imitable.

UPS eventually reached similar service, lower costs, because it already owned delivery fleet, logistics infrastructure. Thus UPS used benefit parity/proximity, margin strategy.

Competitive advantage attracts imitation. The stronger your profits, the stronger rivals' incentives to copy you.

### **PART 3 – THE PROBLEM OF IMITATION**

rivals try to imitate innovations that create added value BUT Some firms resist imitation.

Examples:

- \* Coca-Cola,
- \* Ikea,
- \* Ryanair,
- \* Bloomberg.

### **PART 4 – BLOOMBERG**

Bloomberg terminal:

- \* ~\$30,000/year,
- \* 325,000 subscribers in 2022.

Why Is Bloomberg So Strong?

Because its advantage is NOT only financial data.

It also built:

- \* chat systems,
- \* workflows,
- \* relationships,
- \* networks,
- \* switching costs.

Bloomberg became embedded inside the daily routines of finance professionals. This is MUCH stronger than simple product superiority.

“INSTANT BLOOMBERG”

The chat network:

- \* increases communication value,



\* creates coordination,

\* locks in users.

This is network effects + switching costs.

## **PART 5 – WHY COMPETITIVE ADVANTAGE DISAPPEARS**

### 1. Entry and Rivalry

Competitors imitate you.

### 2. Regression to the Mean

Some success comes from luck. Extreme performance naturally tends to normalize.

### 3. Powerful Buyers/Suppliers

Others capture your value.

Example: Microsoft vs IBM.

## **PART 6 – ENTRY AND RIVALRY**

If a firm earns profits new entrants are incentivized to enter.

Firm A: charges above cost, earns profits.

This creates opportunity for rivals.

Eventually competition reduces profits.

Sustainability Requires Barriers

Two types:

Type	Meaning
Structural barriers	sunk costs, asymmetries
Strategic barriers	predatory pricing, bundling

Sustainability often means making imitation economically unattractive.

## **PART 7 – REGRESSION TO THE MEAN**

Formula:  $P = S + L$

Performance = Skill / Luck

VERY IMPORTANT

Extreme success usually requires high skill AND unusually positive luck.

Luck rarely repeats, Thus performance drifts back toward average.

SOPHOMORE SLUMP

Example: rookie athlete has incredible first season, then “declines.”

Often: talent stayed constant, luck normalized.

Managers often confuse luck with capability.

## **PART 8 – Powerful Buyers & Suppliers:**

IBM:

\* created PC standard,

\* outsourced processor to Intel,

\* outsourced OS to Microsoft.

BUT: did not secure exclusivity.

Result: Hardware became commoditized.



Microsoft controlled the bottleneck resource: MS-DOS. Thus Microsoft captured most value.

Owning the bottleneck matters more than owning the visible product.

### **PART 9 – PERSISTENCE OF PROFITS**

Dennis Mueller's study: high-profit firms tend to remain above average over time.

BUT: Profits partially converge.

Meaning: some advantages disappear, some persist.

What protects persistent profits?

Answer:

- \* resources,
- \* stickiness,
- \* isolating mechanisms.

### **PART 10 – RESOURCE-BASED THEORY (RBT)**

#### 1. Core Idea of RBT

Competitive advantage depends on valuable resources and capabilities.

Resources must be:

Condition	Meaning
Valuable	create value
Scarce	not everyone has them
Imperfectly mobile	difficult to transfer

Not all resources matter. Only resources that are valuable, rare, and sticky create sustained advantage.

### **PART 11 – TYPES OF RESOURCES**

#### 2. Physical Assets

Examples:

- \* factories,
- \* infrastructure,
- \* locations.

#### 3. Intangible Assets

Examples:

- \* brands,
- \* patents,
- \* know-how.

Usually MUCH more important strategically.

#### 4. Capabilities

Examples:

- \* routines,
- \* culture,
- \* coordination,
- \* innovation systems.

Capabilities are often hardest to imitate because they are socially complex and tacit.



## **PART 12 – ORGANIZATIONAL CAPABILITIES**

### 5. Examples of Capabilities

Examples:

- \* strategic innovation,
- \* brand management,
- \* process engineering,
- \* coordination,
- \* quality control,
- \* customer service.

### IMPORTANT DISTINCTION

Resources = what you have. Capabilities = what you can DO with resources.

## **PART 13 – STRATEGIES REQUIRE DIFFERENT RESOURCES**

### 6. Cost Leadership Needs

- \* process engineering,
- \* cost control,
- \* scale,
- \* operational efficiency,
- \* outsourcing coordination.

### 7. Differentiation Needs

- \* branding,
- \* design,
- \* innovation,
- \* marketing,
- \* quality systems.

Strategy and capabilities must fit together. A luxury strategy with weak branding fails; a low-cost strategy with inefficient operations fails.

## **PART 14 – IMPERFECT MOBILITY**

### 8. Definition

A resource is “sticky” to the firm.

Example: house ownership. If value rises, the owner captures the gain, not prospective buyers.

Strategic meaning: the firm captures profits because the resource cannot freely move elsewhere.

## **PART 15 – PERFECTLY MOBILE LABOR**

### 9. Mobile Employees

If employees can leave freely, their salaries rise with their market value. Thus the firm captures little value.

### IMPORTANT

The employee captures most economic surplus, NOT the firm.

## **PART 16 – HOW FIRMS CAPTURE EMPLOYEE VALUE**

### 10. Long-Term Contracts

Reduce mobility.

### 11. Non-Compete Clauses

Prevent immediate transfer to rivals.



## 12. Co-specialization

Workers become more valuable INSIDE the firm than outside because they learn:

- \* routines,
- \* systems,
- \* culture,
- \* relationships

This creates resource stickiness WITHOUT ownership.

## **PART 17 – GENERAL RESOURCE STICKINESS**

Lufthansa Example

Frankfurt airport slots are worth more to Lufthansa than rivals because Lufthansa's network is built around Frankfurt.

IMPORTANT

This resembles hold-up logic, BUT co-specialization emerges naturally over time.

## **PART 18 – ULTIMATE SOURCES OF VALUE**

### 13. Foresight

Seeing value before others.

### 14. Luck

Acquiring unexpectedly valuable resources.

### 15. Firm-Specific Organization

Unique combinations of resources. Most important long-term source.

Competitive advantage often comes less from individual resources and more from how resources are COMBINED.

## **PART 19 – WINNER'S CURSE**

### 16. Definition

The winning bidder may overpay.

Why?

#### A. Common Value

Winner is overly optimistic.

#### B. Unique Advantage

One bidder genuinely values the asset more.

Managers systematically overestimate their uniqueness. Important behavioral bias.

## **PART 20 – ISOLATING MECHANISMS**

### 17. Definition

Mechanisms that protect competitive advantage from imitation or neutralization.

Competitors can:

Action	Meaning
Duplicate	copy resources
Neutralize	make resources irrelevant



Netflix vs Blockbuster

Blockbuster strengths:

- \* stores,
- \* inventory.

Netflix changed the model:

- \* DVD-by-mail,
- \* warehouses.

Thus Blockbuster's strengths became irrelevant.

Disruption often neutralizes rather than imitates.

## **PART 21 – TWO TYPES OF ISOLATING MECHANISMS**

Type	Works Against
Impediments to imitation	duplication
First-mover advantages	duplication + neutralization

## **PART 22 – IMPEDIMENTS TO IMITATION**

### 18. Legal Restrictions

Examples:

- \* patents,
- \* copyrights,
- \* trademarks.

Example: Google bought Motorola patents to strengthen Android.

IP matters MOST when combined with complementary assets.

### 19. Superior Access to Inputs or Customers

Examples:

- \* mining rights,
- \* Coca-Cola vending contracts.

## **IMPORTANT**

The resource must be:

- \* scarce,
- \* difficult to replicate.

### 20. Market Size and Scale Economies

If market too small, two firms cannot efficiently coexist.

Niche markets are often more protected because entrants cannot achieve efficient scale.

### 21. Intangible Barriers

## **PART 23 – CAUSAL AMBIGUITY**

### 22. Definition

Rivals do not fully understand why the firm succeeds.

Sources:

- \* tacit knowledge,
- \* trial and error,



\* secrecy.

Even the firm itself may not fully understand its success.

## **PART 24 – PATH DEPENDENCY**

23. Definition

Current capabilities depend on historical evolution.

Examples:

- \* Toyota supplier trust,
- \* ASML lithography know-how.

Some capabilities cannot be accelerated. 20 years of learning  $\neq$  20x spending in one year.

## **PART 25 – SOCIAL COMPLEXITY**

24. Definition

Capabilities emerge from complex social interactions.

Examples:

- \* routines,
- \* trust,
- \* culture,
- \* coordination.

Competitors may know WHAT matters, but not HOW it was built.

## **PART 26 – FIRST-MOVER ADVANTAGES**

25. Learning Curves

More production  $\rightarrow$  better efficiency.

26. Reputation

Especially important for experience goods.

27. Switching Costs

Customers locked in through:

- \* learning,
- \* investments,
- \* ecosystems.

28. Networks

Most important modern mechanism.

## **PART 27 – NETWORK EFFECTS**

29. Definition

Value increases with number of users.

Actual Networks

Users directly connected.

Examples:

- \* phone,
- \* WhatsApp,
- \* Instagram.

Virtual Networks

Indirect connections through complements.



Examples:

- \* PlayStation ↔ games,
- \* Uber ↔ drivers,
- \* Airbnb ↔ hosts.

Network effects create winner-take-most dynamics.

## **PART 28 – PLATFORMS**

Structure

*Demand ↔ Platform ↔ Supply*

Examples:

- \* Uber,
- \* Airbnb,
- \* Google.

Platforms coordinate multiple sides simultaneously.

## **PART 29 – STANDARDS**

Standards Create Ecosystems

Examples:

- \* Windows,
- \* Bluetooth,
- \* VHS,
- \* Blu-ray.

### **TWO STRATEGIES**

Compete **FOR** the Market

Win the standard war and become dominant standard.

Example: Windows.

Compete **IN** the Market

Make standard open/free and compete in complements.

Example: DVDs.

## **PART 30 – EARLY-MOVER DISADVANTAGES**

Going First Can Fail

Problems:

- \* missing complementary assets,
- \* uncertain technology,
- \* premature adoption.

“SECOND FAST”

Apple strategy: wait until market validated, then scale aggressively.

## **PART 31 – SCHUMPETER & CREATIVE DESTRUCTION**

Schumpeter's Core Idea

Innovation destroys old advantages.

Markets alternate between:

Phase      Description

Quiet      incumbents dominate

Creative    destruction disruption overturns leaders



Capitalism is dynamically unstable. Innovation constantly reshuffles leaders.

### **PART 32 – DISRUPTIVE TECHNOLOGIES**

Definition: Technologies that sharply reduce costs and displace old products.

Sustaining Technologies

Incremental improvements.

Examples:

- \* better cars,
- \* improved printers.

Disruptive Technologies

Radical shifts.

Examples:

- \* smartphones,
- \* EVs,
- \* streaming.

**CHRISTENSEN'S INSIGHT**

Incumbents often ignore disruptive technologies because early performance looks weak.

### **PART 33 – WHY INCUMBENTS FAIL**

30. Productivity Effect

Big firms:

- \* economies of scope,
- \* but less diversity.

Startups:

- \* more experimentation.

31. Sunk Cost Effect

Incumbents invested heavily in old technology, thus biased toward protecting old systems.

32. Replacement Effect

Arrow's logic:

- \* for monopolist → innovation preserves profits,
- \* for entrant → innovation replaces incumbent entirely.

Thus entrants often have stronger incentives.

33. Efficiency Effect

If entry threat high, incumbent innovates defensively.

### **PART 34 – WAIT AND SEE?**

Disruptive Technologies Initially Underperform

Examples:

- \* early EVs,
- \* early streaming,
- \* early AI.



Incumbents rationally ignore them initially, but by the time technology matures, newcomers already learned and scaled.

### **PART 35 – MARKET FOR IDEAS**

Success Depends On  
Appropriability regime.

Key questions:

1. Can rivals steal the idea?
2. Are specialized assets needed?

### **PART 36 – TEECE MATRIX**

Best Situation for Startups  
Expropriation hard - Specialized assets NOT needed  
Innovator captures value

Worst Situation  
Expropriation easy - Specialized assets needed  
Incumbents win

Examples:

Situation	Example
AI	intense competition
EVs/drugs	large investments needed

### **PART 37 – PORTER'S DIAMOND MODEL**

Why Some Countries Dominate Industries

Four attributes:

Attribute	Meaning
Factor conditions	labor, infrastructure
Demand conditions	sophisticated buyers
Related industries	supplier ecosystems
Rivalry	intense domestic competition

Nations create innovation ecosystems.

Examples:

- \* Switzerland → watches,
- \* Silicon Valley → software,
- \* Italy → leather goods.

## **WEEK 09**

### **PART 1 – THE AGENCY RELATIONSHIP**

#### 2. Principal-Agent Relationship

Definition: a principal-agent relationship exists when one party, the agent, takes actions affecting another party's payoff, the principal.

Examples:

Principal	Agent
Shareholders	CEO
CEO	Employees
Citizens	Politicians
Client	Lawyer



Student                  University

Agency relationships exist because agents possess time, expertise, and information that principals lack.

### 3. The Two Conditions for Agency Problems

Agency problems arise when BOTH conditions hold.

#### A. Objectives Are Misaligned

The principal wants one thing, while the agent wants another. Example: shareholders want maximum firm value, while managers may want less effort, lower personal risk, private benefits, prestige, empire-building, career protection, or job security.

#### B. Hidden Actions / Hidden Information

The principal cannot perfectly observe effort, decisions, or information.

This is the core source of moral hazard.

Agency problems do NOT require bad intentions. Even rational self-interest can create them.

### 4. Solutions to Agency Problems

Solution	Logic
Monitoring	observe behavior
Pay-for-performance	align incentives

#### A. Monitoring

The principal gathers information, supervises, audits, and observes behavior.

Examples:

- \* surveillance,
- \* audits,
- \* managers,
- \* board oversight.

#### PROBLEM

Monitoring is costly, imperfect, and itself subject to agency problems.

#### HUGE INSIGHT

Who monitors the monitors? Even directors are agents.

#### B. Pay-for-Performance

Compensation is tied to outcomes. Instead of observing effort directly, the firm rewards results.

Examples:

- \* commissions,
- \* bonuses,
- \* stock options,
- \* promotions.

## **PART 2 – SHAREHOLDERS VS MANAGERS**

### 5. Shareholder–Manager Conflict



Shareholders want maximum profits with reasonable risk. Managers may want lower effort, lower personal risk, prestige, empire-building, career protection, private benefits, or job security.

Managers are usually MORE risk-averse than shareholders because shareholders diversify, while managers concentrate career, reputation, and wealth inside one firm.

#### 6. Role of the Board of Directors

The board represents shareholders. Main functions: monitor managers, select executives, approve strategy, oversee governance, and protect shareholder interests.

The board itself creates another agency layer: Shareholders → Board → Managers.

#### 7. Limitations of Monitoring

Monitoring is imperfect because firms are large, complex, and information-intensive.

Problems:

- \* imperfect information: boards cannot observe everything,
- \* costly: monitoring consumes time, money, and attention,
- \* second-level agency problems: directors may pursue prestige, connections, or private interests.

Perfect monitoring is impossible. Thus incentives become necessary.

#### 8. Yahoo–Microsoft Case

Microsoft offered \$33/share for Yahoo in 2008. CEO Jerry Yang refused, and the stock later collapsed.

Three possible interpretations:

- \* honest belief: Yang genuinely believed Yahoo was worth more,
- \* strategic negotiation: he was trying to raise Microsoft's offer,
- \* agency conflict: he valued leadership, identity, and control more than shareholder profit.

The difficulty is that outsiders often cannot distinguish mistake, hidden information, and self-interest. This is classic agency ambiguity.

### **PART 3 — PAY-FOR-PERFORMANCE**

#### 9. How Pay-for-Performance Works

Compensation is tied to the principal's payoff.

Examples:

- \* commissions,
- \* bonuses,
- \* stock options,
- \* promotions,
- \* non-monetary rewards.

Align employee incentives with firm outcomes.

#### 10. Stock Options

Mechanism: the employee receives the right to buy shares at a fixed exercise price.

Example: if the exercise price is 10 and the market price later becomes 15, profit per share =  $15 - 10 = 5$ .

Options encourage employees to increase stock value.



Options may also encourage excessive risk-taking, short-termism, and manipulation.

#### 11. Advantages of Pay-for-Performance

Main benefits:

- \* no need to observe effort: only outcomes matter,
- \* flexible incentive intensity: the firm can calibrate bonus size, commission rate, etc.,
- \* employees use private information: workers exploit local knowledge, initiative, and creativity.

Good incentives decentralize decision-making.

#### 12. Problems with Pay-for-Performance

##### A. Noise

Performance may be affected by luck, market conditions, or random events. Example: stock price may rise because the entire market rises, not because of managerial skill.

Risky pay requires higher compensation because risk-averse employees demand a risk premium.

##### B. Incomplete Performance Measures

Measures capture only PART of desired behavior.

People optimize what is measured, not necessarily what is truly valuable. This is the deepest idea of the week.

### **PART 4 – WELLS FARGO**

#### 13. Wells Fargo Case

Employees were pressured to hit sales targets, resulting in millions of fraudulent accounts being opened.

WHY? Incentives focused narrowly on cross-selling metrics.

Bad metrics create counterproductive behavior.

Employees were not necessarily “bad people.” The incentive system distorted behavior.

What gets rewarded gets optimized, even if harmful.

### **PART 5 – MULTITASKING PROBLEM**

#### 14. Multitasking

Employees perform many tasks, but only some are measurable.

Example: teaching to the test. Teachers perform both test preparation and deeper intellectual development, but only test preparation is easily measurable. Thus incentives shift effort toward test-taking skills.

Measured activities crowd out unmeasured activities.

#### 15. Counterproductive Actions

Employees may optimize metrics while harming true objectives.

British Hospitals example: hospitals were rewarded for reducing wait times. Possible distortions included prioritizing easy patients, neglecting emergency care, or manipulating priorities.

Targets improved outcomes, BUT created substantial risk.

Metrics create substitution effects: people shift effort toward measured dimensions.

#### 16. Lantech Case

Bonuses based on divisional profits created conflicts over overhead allocation.



Measurement systems shape internal politics.  
Metrics influence cooperation, conflict, incentives, and organizational culture.

## **PART 6 – DESIGNING PERFORMANCE MEASURES**

### 17. Performance Measures Differ Along Many Dimensions

Critical framework:

- \* easy vs hard to measure: sales rep easy, research scientist hard,
- \* noisy vs precise: stock market high noise, accounting profit less noisy,
- \* objective vs subjective: units sold vs creativity/leadership,
- \* individual vs team control: some outcomes depend on many people,
- \* absolute vs relative: hit target vs outperform peers,
- \* broad vs narrow: individual metrics vs team/firm metrics.

### 18. Absolute vs Relative Performance

Absolute measures reward fixed targets. Advantages: lower noise, more stable, less sabotage.

Relative measures compare employees against each other. Advantage: common shocks are removed. Problems: herding, anti-innovation, sabotage, and withholding information.

Relative evaluation increases internal competition, often at the cost of collaboration.

### 19. Broad vs Narrow Measures

Narrow measures are individual metrics. Advantages: clear accountability and less free-riding. Problems: weak collaboration and multitasking distortions.

Broad measures are firm-wide or team-wide outcomes. Advantages: collaboration and alignment. Problems: free-riding, noise, and weak accountability.

No measure is perfect. Firms combine measures.

### 20. Explicit Incentive Systems

Real firms use multiple measures simultaneously to balance precision, collaboration, noise, and multitasking.

Good incentive systems are multi-dimensional, not one-number systems.

## **PART 7 – SUBJECTIVE EVALUATION**

### 21. Implicit Incentive Contracts

Workers expect productive effort to be rewarded, even without formal formulas.

Subjective evaluation can reward cooperation, mentorship, creativity, and information sharing — things formulas cannot capture well.

### 22. Types of Subjective Evaluation

Examples:

- \* 360-degree reviews,
- \* management by objectives,
- \* merit ratings.

Subjective systems incorporate contextual judgment.

### 23. Problems of Subjective Evaluation

Main problems:

- \* ratings compression: managers dislike giving very different ratings, so everyone becomes “above average,”



\* influence activities: employees spend effort managing impressions, politics, and favoritism,

\* noise: subjective evaluations are inconsistent.

Subjective evaluation solves multitasking problems, BUT creates political distortions.

## **PART 8 – PROMOTION TOURNAMENTS**

### 24. Promotion Tournaments

Employees compete for promotions.

Formula:

$$\text{Expected reward} = \frac{W^* - W}{N}$$

Where:

\*  $W^*$  = promoted salary,

\*  $W$  = current salary,

\*  $N$  = number of competitors.

Effort increases when the prize is bigger or competitors are fewer.

Promotion systems create incentives even BEFORE promotion.

### 25. Tournament Logic

Firms can increase effort by increasing top rewards or lowering lower-level salaries.

WHY CEO PAY SO HIGH? The largest wage gap should exist near the top because the huge prize motivates the entire hierarchy.

### 26. Problems of Tournaments

Problems:

\* sabotage: employees undermine rivals,

\* anti-collaboration: knowledge withholding,

\* Peter Principle: people get promoted beyond competence,

\* superstar effect: obvious winners demotivate others.

Best worker at one level  $\neq$  best worker at the next level.

## **PART 9 – THREAT OF TERMINATION**

### 27. Termination as Incentive

Employees work hard to avoid firing.

Key condition:  $P(W - W^{**}) > \text{cost of effort}$

Where:

\*  $P$  = probability of detection/firing,

\*  $W$  = current wage,

\*  $W^{**}$  = alternative wage.

The more valuable the current job, the stronger the discipline effect.

### 28. Efficiency Wages

Definition: wages above market level that motivate effort.

WHY THEY WORK: Employees fear losing a high-paying job.

Effects:

\* higher effort,

\* lower shirking,

\* lower turnover.

BUT IMPORTANT: Efficiency wages may create unemployment.



## **PART 10 – MICROSOFT FORCED RANKING**

### 29. Forced Ranking System

Managers were forced to classify employees along a fixed distribution. Even strong teams required some “low performers.”

Consequences:

- \* anti-collaboration,
- \* internal politics,
- \* gaming,
- \* sabotage,
- \* focus on rankings over innovation.

Overly aggressive relative evaluation destroys cooperation.

Nadella reform: Microsoft later removed forced ranking and emphasized collaboration and growth mindset.

## **PART 11 – TEAM INCENTIVES**

### 30. Team Performance

Teams improve coordination, specialization, and knowledge sharing.

**PROBLEM: FREE RIDING**

Example: Tom’s effort costs him 100, benefits the team 500, but his personal gain is only 83.3. Thus Tom shirks.

Individual incentives inside teams often become diluted.

### 31. How to Reduce Free Riding

Solutions:

- \* small teams: members monitor each other,
- \* long-term relationships: reputation matters,
- \* social penalties: peer pressure,
- \* intrinsic motivation: employees care about team success.

Social mechanisms partially substitute for formal incentives.

## **WEEK 10A – STRATEGY AND STRUCTURE**

### **PART 1 – WHY STRUCTURE MATTERS**

#### 2. What Is Organizational Structure?

Organizational structure is determined by:

1. division of critical tasks,
2. decision-making processes,
3. routines and information flows.

Simple interpretation: structure answers who does what, who reports to whom, who decides, how information is shared, and how coordination is achieved.

Structure is fundamentally about solving coordination problems and agency problems.

#### 3. “Structure Follows Strategy”

Meaning: the organization must be designed to support the strategy, the market, and the business model.

There is NO universally optimal structure. Correct structure depends on products, technology, diversification, geography, coordination needs, and information distribution.

Flat organizations are not always better. The correct structure depends on strategy, complexity, coordination needs, and agency costs.

#### 4. Why Growth Creates Structure



Clothing-store example: in Phase 1, the owner does everything: sales, accounting, procurement, merchandising. No formal structure is needed. In Phase 2, the owner hires a salesperson and merchandise buyer, so specialization emerges. In Phase 3, growth creates more employees, specialized skills, managerial delegation, and coordination needs; therefore, formal structure becomes necessary.

Structure emerges because human cognitive capacity is limited. One person eventually cannot coordinate, supervise, and process information for the whole organization.

## **PART 2 – FUNCTIONAL DEPARTMENTS**

### 5. Functional Departments

Definition: groups organized around a common function and specialized skills.

Department	Core Skill
R&D	innovation
Finance	capital allocation
Marketing	customer demand
Manufacturing.	production
HR	personnel systems

Functions are the basic building blocks of organizations.

### 6. Core Operations

Core operations include R&D, purchasing, manufacturing, sales & marketing, and logistics.

These activities collectively produce economic value and connect directly with Porter's value chain from Week 06.

## **PART 3 – MAIN FUNCTIONS**

### 7. R&D

Research & Development establishes product features and production methods. Main activities: fundamental research, technology scanning, customer needs evaluation, product development, and quality checks.

R&D links technology, market needs, and future competitiveness.

R&D is not only scientific discovery; it also includes incremental improvements, market adaptation, and problem-solving.

### 8. Purchasing

Purpose: acquire raw materials, equipment, and services. Procurement cycle: identify needs, select suppliers, negotiate, order, and manage relationships.

Purchasing affects costs, quality, reliability, and supplier power. Direct connection with transaction costs and vertical integration.

### 9. Manufacturing

Manufacturing transforms inputs into outputs. Main activities: processing, assembly, planning, maintenance, and quality control.

**IMPORTANT:** Manufacturing combines technical knowledge, operational coordination, and process efficiency.

Manufacturing is where economies of scale, learning effects, and process innovation often emerge.



#### 10. Sales & Marketing

Marketing creates customer interest and demand. Sales executes the actual exchange transaction. The 4 Ps are product, price, promotion, and place. Marketing shapes willingness to pay, so it directly affects B from Weeks 06–07.

#### 11. Logistics

Logistics manages acquisition, storage, and transportation of raw materials, work-in-progress, and finished goods. Logistics creates coordination efficiency across the value chain. Amazon's advantage is partly logistics superiority, not only platform technology.

#### 12. Finance

Finance raises and allocates capital. Activities include forecasting needs, choosing debt/equity mix, executing capital transactions, and managing banking relationships. Finance allocates scarce capital across strategic priorities.

#### 13. Human Resources

HR manages personnel systems: recruiting, compensation, performance analysis, promotions, and training. HR operationalizes Week 09 incentive systems.

### **PART 4 — HOW WORK CAN BE ORGANIZED**

#### 14. Three Organizational Modes

Individual contributors: employees evaluated individually; examples include traders, consultants, and salespeople. Best when individual output is measurable.

Self-managed teams: rewards linked to team performance. Best when coordination is important and individual contribution is difficult to isolate; examples include consulting projects, product development, and manufacturing cells. Connects directly with free-riding from Week 09.

Hierarchy of authority: managers supervise subordinates. Purpose: coordination, monitoring, decision-making, and agency control. Hierarchy emerges because large groups cannot coordinate efficiently without authority.

### **PART 5 — GENERAL DESIGN PRINCIPLES**

#### 15. Specialization

Specialization generally increases efficiency through learning-by-doing, skill differences, repetition, and lower setup costs. Adam Smith logic: division of labor increases productivity. BUT specialization also creates coordination costs. CENTRAL TRADEOFF: Specialization benefits vs coordination costs.

#### 16. When Teams Are Better

Teams are preferred when coordination is essential and output is difficult to attribute individually. Example: developing an iPhone involves many interdependent specialists, making individual contribution hard to measure.



### 17. When Hierarchy Becomes Necessary

Self-managed teams fail at very large scale because of coordination overload, communication explosion, and agency problems. Hierarchy is fundamentally an information-processing solution.

## **PART 6 – DEPARTMENTALIZATION**

### 18. Departmentalization

Definition: grouping jobs into departments, divisions, or units.

Four main types:

1. functional,
2. product,
3. geographical,
4. customer.

### 19. Functional Departmentalization

Organized by specialized function. Best when economies of scale are important, specialized knowledge is critical, and diversification is limited.

Advantages: deep expertise, scale economies, efficiency. Problems: silos, weak cross-functional coordination, slower responsiveness.

Functional structure works poorly for highly diversified firms.

### 20. Product Departmentalization

Organized by product/business line. Best when products differ substantially and coordination within product is more important than coordination across products.

Advantages: responsiveness, accountability, product focus. Problems: duplication of functions and weaker economies of scale.

Product divisions often operate as profit centers.

### 21. Geographical Departmentalization

Organized by region/country. Best when markets differ culturally, legally, or logistically.

Geographic structures prioritize local responsiveness. Main tradeoff: local adaptation vs global standardization.

### 22. Customer Departmentalization

Organized by customer segment. Best when different customers require different products, services, or sales approaches.

Examples: retail vs corporate banking; consumer vs industrial sales.

Customer knowledge becomes more important than product knowledge.

## **PART 7 – COORDINATION & CONTROL**

### 23. Technical Efficiency

Coordination improves economies of scale, economies of scope, and information sharing.

### 24. Agency Efficiency

Decision-makers may behave selfishly, so control systems are necessary.

Organizational design balances technical efficiency vs agency efficiency.



## **PART 8 – CENTRALIZATION**

### 25. Centralization

Definition: extent to which authority remains concentrated at the top.

Centralized structure: top management decides most things. Advantages: consistency, coordination, control, strategic alignment. Problems: slow decisions, local ignorance, overload at top.

### 26. Decentralization

Authority delegated downward. Advantages: faster decisions, local adaptation, initiative, flexibility. Problems: coordination difficulties, agency problems, inconsistent decisions.

Decentralization works ONLY if employees have information, competencies, and incentives. This directly connects with Week 09 incentives.

## **PART 9 – SPAN OF CONTROL**

### 27. Span of Control

Definition: number of subordinates reporting to one manager.

Wide span: manager supervises many people. Best when employees are skilled, procedures are standardized, and monitoring need is low. Advantages: flatter organization, lower overhead, faster communication. Problems: less supervision, managerial overload.

### 28. Narrow Span

Few subordinates per manager. Best when tasks are complex, close supervision is needed, and employees are less experienced. Advantages: tighter control, more support. Problems: bureaucracy, slower communication, more organizational layers.

Span of control determines organizational height: wide span → flat organization; narrow span → tall organization.

## **PART 10 – FORMALIZATION**

### 29. Formalization

Definition: degree to which work is standardized through rules, procedures, and training.

Formalization improves predictability, consistency, coordination, and scalability.

Example: McDonald's procedures.

Problems: less flexibility, lower creativity, reduced learning, stress, and rule obsession.

Formalization solves coordination problems, BUT may destroy innovation.

## **WEEK 10B – FORMS OF ORGANIZATIONAL STRUCTURE**

### **PART 1 – FORMS OF ORGANIZATIONAL STRUCTURE**

#### 2. Four Main Structural Forms

Main structures:

1. Functional Structure/U-form,
2. Multidivisional Structure/M-form,
3. Matrix Structure,
4. Network Structure.

These structures differ mainly in HOW activities are grouped and coordinated.



## **PART 2 – FUNCTIONAL STRUCTURE (U-FORM)**

### 3. U-Form Structure

U-form = Unitary Form. Departments are grouped by function: finance, marketing, manufacturing, HR, R&D.

Key characteristics: centralized authority, specialization, and direct chain of command.

The U-form maximizes functional efficiency.

### 4. When U-Form Works Best

Works best in stable environments, small firms, narrow product markets, and low diversification because coordination across products/geographies remains manageable.

Functional structure is NOT only for small firms. Apple uses it at huge scale. The real issue is complexity and diversification.

### 5. Advantages of U-Form

Clear chain of command, fast functional decisions, and homogeneity inside functions. Functional structures create deep specialization economies.

### 6. Disadvantages of U-Form

Functions can become silos. Example: marketing wants customization, while manufacturing wants standardization. Functional structures also struggle when firms expand across products, channels, and geographies.

U-form centralizes too much information-processing burden at the top.

### 7. Apple Case – U-Form at Scale

Steve Jobs eliminated product divisions: no iPhone GM, Mac GM, or iPad GM.

Instead, functional heads dominate: hardware engineering, software, design, marketing, and operations.

Apple allocates decision rights based on expertise, not product ownership.

Three core principles: personal expertise, immersion in details, and collaborative debate.

Why it works: Apple products share an integrated ecosystem, common technology, and unified design philosophy, so cross-product coordination is critical. Apple sacrifices divisional autonomy to maximize cross-functional integration, but this creates a massive coordination burden on top executives.

Apple succeeds with U-form not because U-form is universally superior, but because its strategy requires deep functional integration.

## **PART 3 – LINE-AND-STAFF STRUCTURE**

### 8. Line-and-Staff Structure

Traditional hierarchy plus specialist advisors.

Line managers have direct operational authority. Staff managers provide expertise, advice, and support, such as legal, HR, and finance.

Staff managers usually lack direct authority over line managers.



### 9. Advantages of Line-and-Staff

Experts support operations, and line managers can focus on execution.  
Line-and-staff combines operational authority with specialized expertise.

### 10. Disadvantages

Problems: ambiguous communication and authority frustration. Staff experts advise but cannot always enforce; line managers may resist.  
Influence without authority creates tension.

## PART 4 – MULTIDIVISIONAL STRUCTURE (M-FORM)

### 11. M-Form Structure

M-form = Multidivisional Form. The firm is divided into semi-autonomous divisions, usually based on products, regions, or customers.

Corporate HQ handles strategy, capital allocation, and governance. Divisions handle operations, execution, and profits.

The M-form separates strategic control from operational execution.

### 12. Characteristics of M-Form

Divisions are mini-firms responsible for their own profits. Operations are decentralized, and divisions compete for resources through an internal capital market.

HQ acts partly like an internal investor.

### 13. Advantages of M-Form

Easier performance measurement through divisional P&L, delegation, faster decisions, local responsiveness, and stronger customer fit.

M-form solves many coordination problems created by diversification.

### 14. Disadvantages of M-Form

Problems: duplication of functions such as HR, marketing, and operations; loss of scale economies; internal conflict as divisions compete for capital, attention, and resources.

M-form improves responsiveness BUT sacrifices some efficiency.

### 15. Alfred Sloan & GM

GM before Sloan was a chaotic collection of acquired brands. Sloan created autonomous product divisions such as Chevrolet, Pontiac, Buick, and Cadillac.

Core principle: “decentralized operations with coordinated control.”

This became the blueprint for modern diversified corporations. GM’s M-form succeeded because different customer segments required different products and strategies.

GM’s M-form was not about eliminating hierarchy; it delegated operational authority while maintaining strategic coordination.

### 16. LVMH Case

M-form fits LVMH because different maisons have unique identities, customers, creativity, and positioning.



Important features: decentralized organization, preserving expertise, innovation, selective vertical integration, and synergies across brands.

LVMH balances brand autonomy with group-level coordination. Scale economies are less important because luxury relies more on craftsmanship, exclusivity, and identity than mass-production efficiency.

## **PART 5 – MATRIX STRUCTURE**

### 17. Matrix Structure

Definition: organization structured simultaneously along TWO dimensions, such as product + geography or function + project.

Key feature: employees have TWO BOSSES.

Matrix structures formalize lateral coordination.

### 18. Why Firms Use Matrixes

Useful when multiple dimensions are equally important. Example: a multinational consulting firm needs functional expertise AND regional responsiveness. Employees belong to both a functional department and a project/team/geographic structure.

### 19. Advantages of Matrix

Advantages: flexibility, cooperation, scale plus output attention, and expertise development.

Matrix attempts to simultaneously optimize multiple coordination dimensions.

### 20. Disadvantages of Matrix

Problems: complexity, high cost, and authority conflict because employees may not know which boss has priority.

Matrix structures create coordination gains BUT massive ambiguity.

### 21. ABB Case

ABB had 65 business areas, 140 countries, and 5,000 profit centers. Slogan: “Think global, act local.”

Why matrix fit: ABB needed global technological coordination AND local political responsiveness.

Why it failed later: accountability problems, coordination overload, and excessive complexity.

Matrix structures often become unstable at large scale.

## **PART 6 – SPOTIFY MODEL**

### 22. Spotify Structure

Components:

- \* squads: small autonomous teams,
- \* tribes: groups of related squads,
- \* chapters: functional specialization groups,
- \* guilds: cross-company communities.

Spotify combines autonomy, specialization, and coordination. It is essentially a matrix-like system.

**IMPORTANT**



Spotify itself admitted the “Spotify model” was imperfect. Too much autonomy created coordination failures and strategic misalignment.  
Autonomy  $\neq$  efficiency automatically. Too much decentralization can destroy coherence.

## **PART 7 – NETWORK STRUCTURE**

### 23. Network Structure

Definition: independent units coordinate through contracts, platforms, and incentives rather than hierarchy.

Examples:

- \* Linux,
- \* Wikipedia,
- \* app ecosystems,
- \* industrial districts.

Network structures substitute markets and platforms for hierarchy.

### 24. Modular Organization

Special type of network structure built around technology standards. Example: Apple App Store ecosystem.

Logic: independent developers create apps while Apple coordinates platform rules. Platform ecosystems are organizational structures, not just technologies.

### 25. Haier Case

Haier replaced hierarchy with 4,000 micro-enterprises. Each is small, autonomous, has its own P&L, and contracts internally/externally.

Haier attempted to simulate market incentives INSIDE the firm.

**IMPORTANT**

“No managers” is misleading. Corporate coordination still exists.

## **PART 8 – GETTING STRUCTURE RIGHT**

### 26. Three Core Organizational Problems

1. Task interdependence,
2. managing exceptions,
3. information retrieval.

## **PART 9 – TASK INTERDEPENDENCE**

### 27. Task Interdependence

Reciprocal interdependence: mutual dependence, e.g. designers and engineers iterating together. Organizational implication: place close together in the same team/unit.

Sequential interdependence: one-way dependence, e.g. assembly line. Organizational implication: use routines, clear coordination, or matrix solutions.

Pooled interdependence: units largely independent but share resources, e.g. branches sharing brand reputation. Organizational implication: light coordination is sufficient.

Different interdependence types require different structures.



## **PART 10 – MANAGING EXCEPTIONS**

### 28. Routines

Definition: repeated learned behavioral patterns.

Routines reduce information-processing burden, but they fail under unexpected situations.

Who handles exceptions? Bosses, experienced workers, and lateral coordination.

Management exists partly because organizations cannot fully standardize uncertainty.

## **PART 11 – INFORMATION RETRIEVAL**

### 29. Information Retrieval

Important information may be dispersed, hidden, delayed, or distorted.

Competitive advantage often depends on information-processing superiority.

### 30. Zara Case

Stores are decentralized: local managers choose products/orders. BUT the information system is centralized. Data flows to HQ include sales, returns, and customer feedback.

Result: Zara reacts extremely quickly, with a 2–5 week product cycle.

Zara's structure optimizes information retrieval speed. This is core to fast-fashion advantage.

## **PART 12 – FRESHII CASE**

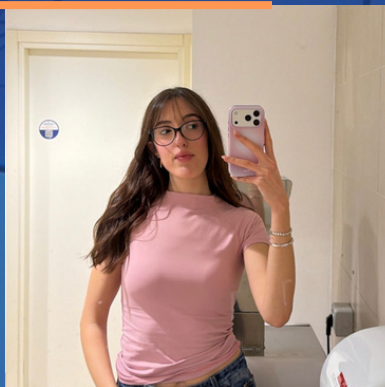
### 31. Freshii

Healthy-food franchise example.

Analytical questions: evaluate U-form vs M-form vs network, centralization, formalization, span of control, culture, incentives, and growth challenges.

The professor may give a real company and ask which structure fits best. Reason from strategy, coordination, information, incentives, and interdependence — not labels only.

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