Universiteit Antwerpen
Faculteit Bedrijfswetenschappen en Economie

External analysis and identification of critical success factors

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Structure of the course

Agreements	Slides
Concept: What is strategy?	Slides/lecture materials + H2 course
Concept: Competitive advantage and value creation	Slides/lecture materials + H3 course
Technique: External analysis	***Slides/lecture materials + H4 course***
Technique: Internal analysis and core competencies	Slides/lecture materials + H5 course
Strategic choice: Growth and portfolio strategy	Slides/lecture materials + H7 course
Organization & follow-up: Sustainability	Slides/lecture materials
Organization & follow-up: Culture	Slides/lecture materials + H8 course

Today's class

- Industry structure drives competition and profitability
- Outside-in view - External analysis
  - Goal
    - Define the industry's critical success factors
    - As such: understand the degrees of freedom your company has
  - Methodology – 3C analysis
    - Context: General/Macro context
      - Tool: PEST(EL)
    - Chain
      - Tool: industry/company chain
    - (Industry) Competition
      - Tool: Five Forces
  - Other possibilities
  - SWOT (Focus on Opportunities and Threats)

Today's class

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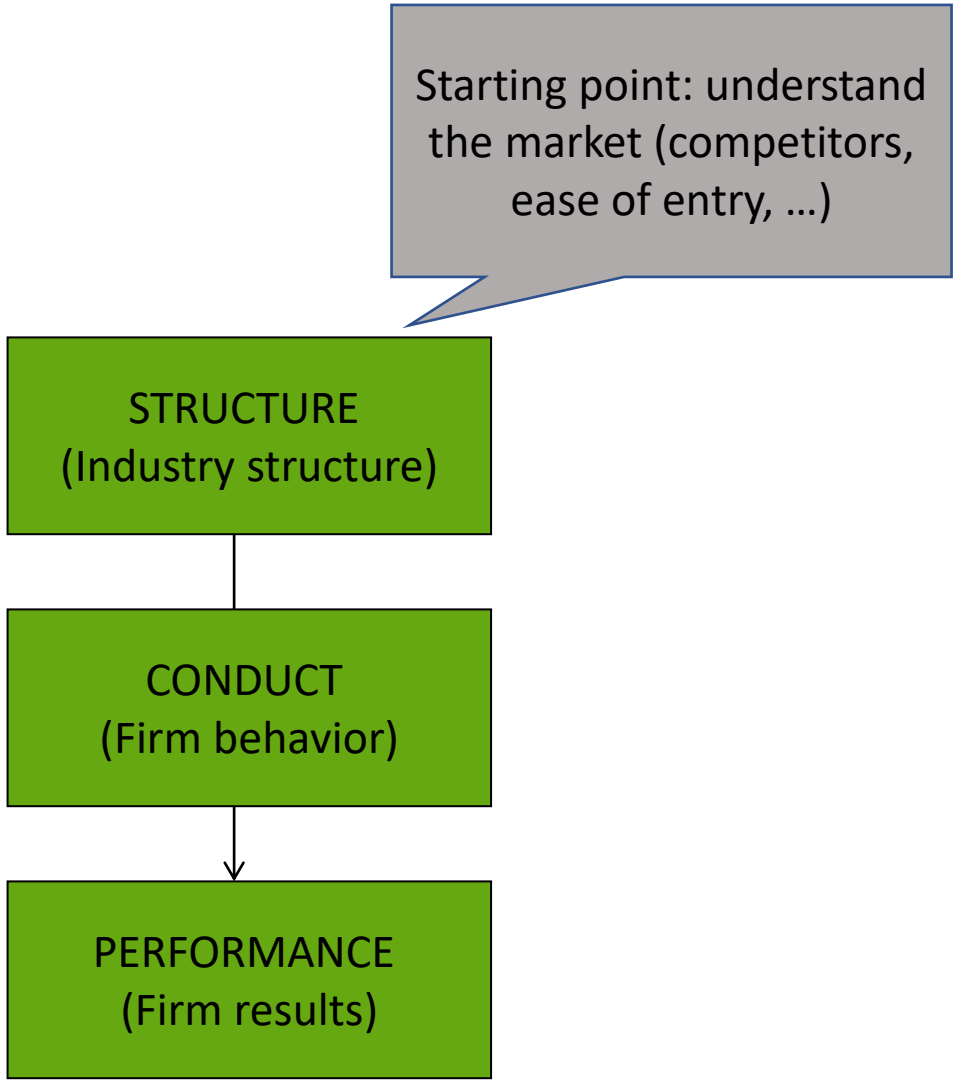
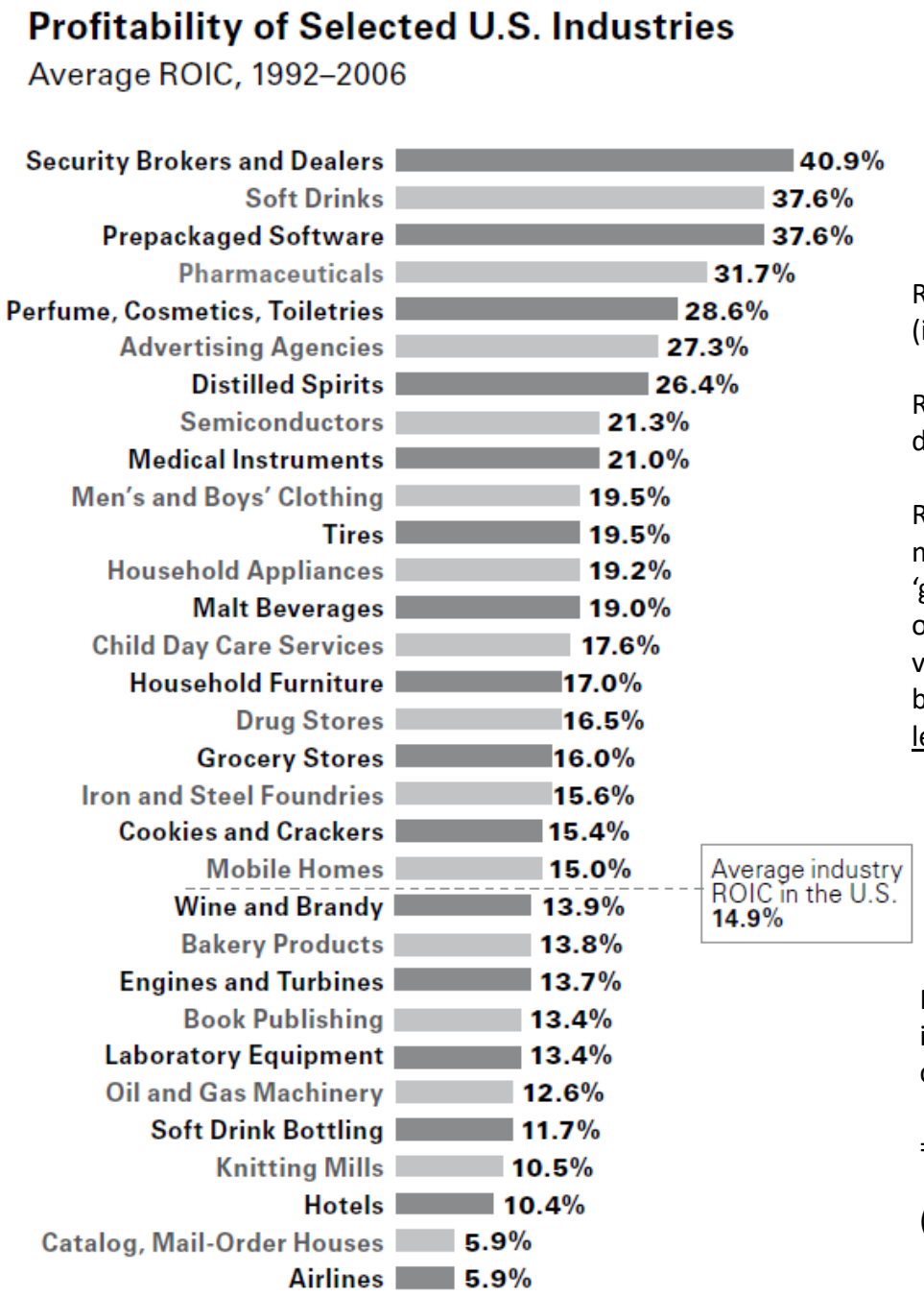
Industry structure drives competition and profitability



Median ROE (return on equity) is largest for tobacco (33.5%) and lowest for airlines (-11.3%)



Source: Porter, 2008 (HBR)

ROE = net income/equity (inkomen / vermogen)

ROIC = EBIT / (equity + longterm debt)

ROIC is meestal een betere manier om na te kijken hoe 'goed' het management 'werkt', omdat het zowel het vermogen van het bedrijf meeneemt in de berekening, als wat het bedrijf leent.

ROIC = Return on Invested Capital; takes into account the capital required to compete in the industry

= (EBIT) / (average invested capital)

(EBIT = Earnings Before Interest and Tax)

Industry structure drives competition and profitability

Example

- Pharmaceuticals (e.g., Pfizer, J&J, Merck) – median ROE (2000-2010) = 20.5%
- Computers & office equipment (e.g., Apple, Dell, Hewlett-Packard) – median ROE = 12.1%

- Reasons?
  - Pharmaceutical industry
    - Highly differentiated products, if patented
    - Consumers are rather price-insensitive (except for OTC products, or generics)
    - Monopoly, if patented
  - Personal computers
    - Higher number of firms with products that are much more commoditized (remark: (mass-) customization tries to break the commoditization trend)

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An *Industry's* Critical Success Factors

What do we want to know?

- Strategic degrees of freedom?
  - Is the organization restricted in stipulating its policy? What are its restrictions?
  - Critical success factors in the INDUSTRY

Critical success factors (CSF)

- 'Qualifiers'
  - Necessary to “survive”
  - Avoid failure
- Differentiators
  - Lead to “success”
  - Necessary and sufficient conditions
- CSF => EX POST => determine CSFs through analysis
  - “Are determined at the market level through complex interaction among the firm's competitors, customers, regulators, innovators external to the industry, and other stakeholders"
  - CSF need to be determined through sound and logic reasoning!

Critical success factors (CSF)

- Important: based on an **industry** analysis, not a company analysis!

- CSFs: dynamic => future CSFs? (external analysis)
  - Trends?

Today's class

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How can we define these CSFs?

External analysis

- 3C analysis
  - Context: General/Macro context
    - Tool: PEST(EL)
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  - (Industry) Competition
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- Other possibilities
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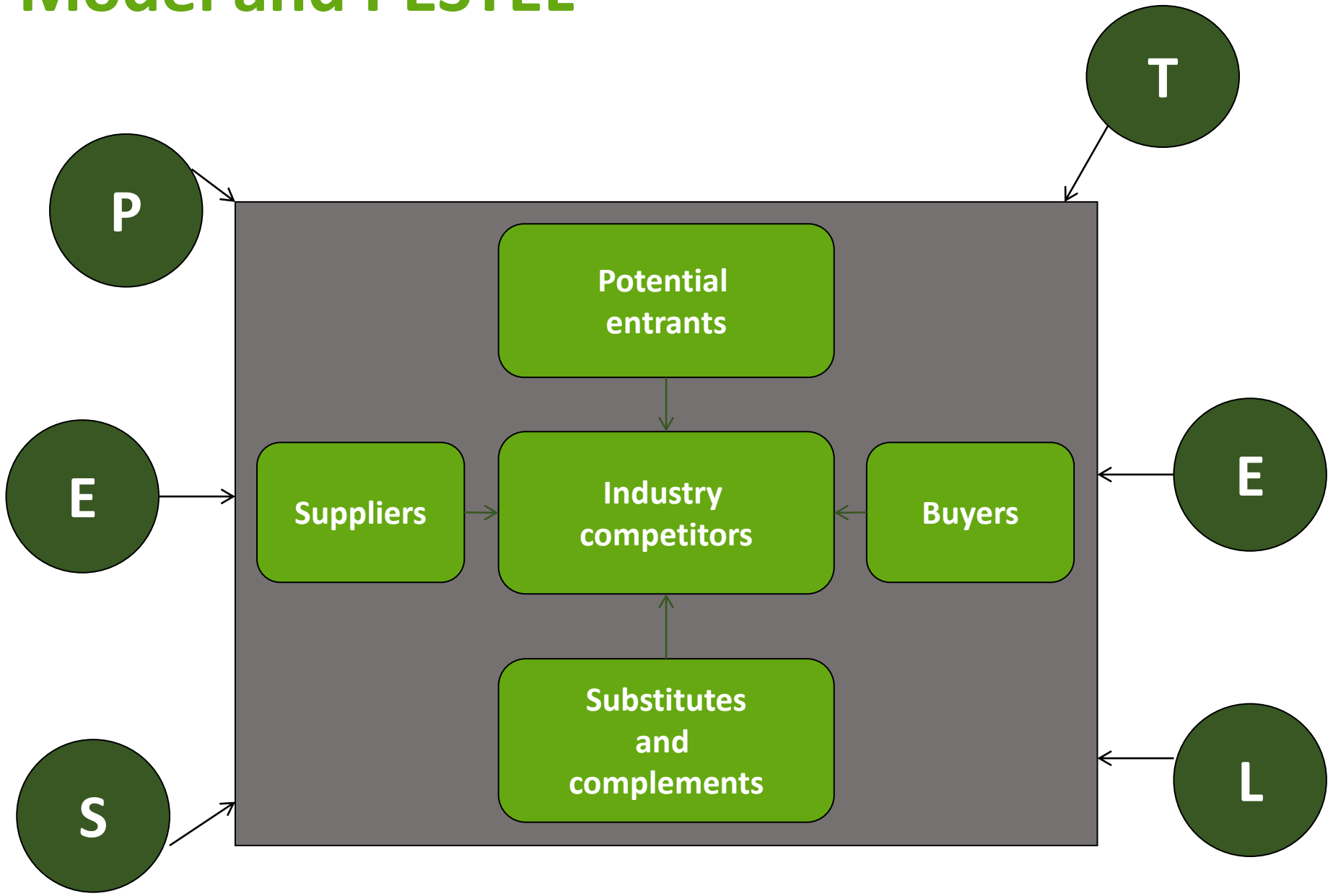
Five Forces Model and PESTEL



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External analysis
Context – PEST(EL) analysis

External analysis – Context - PEST(EL) analysis

- Political (regional, national, European, worldwide)
  - Impact government
  - Stability political regime
  - Taxations, subsidies
  - Etc…
- Economical
  - Unemployment rate
  - Interest rate
  - Economic climate
  - Etc…

PEST(EL) analysis

- Socio-cultural
  - Demographic evolution (e.g., ageing population)
  - Health
  - Attitude towards work-life balance
  - Environmental awareness
  - Etc…
- Technological
  - Impact e-business
  - Impact internet security
  - New production processes
  - R&D expenditures government
  - Etc…

PEST(EL) analysis

- Ecological => often discussed in “S”
  - Kyoto protocol
  - “Waste” policy
  - Etc…

- Legal => often discussed in “P”
  - Competition regulations
  - International contracts
  - Etc…

PEST(EL) analysis

Attention points

- Merely listing large numbers of external factors that in some way influence firms' operations and performance is not helpful
  - Rather: focus on the factors that are most important in shaping industry conditions
  - Example
    - Solar panels
      - Changes in subsidy schemes

      VS
      - The unemployment level in the economy
- Future impacts?
  - Define the opportunities and threats the company will face in the future!

PEST(EL) analysis

- Example Philip Morris – 10’ Brainstorm
- Questions
  - Perform a PEST analysis of the tobacco industry, taking into account (1) your own knowledge about the tobacco industry, (2) an information search, and (3) the information given in the text you can find on BB
- Focus during your brainstorm on the following:
  - Do NOT focus on Philip Morris during the analysis, but **focus on the tobacco industry**
  - How does the macro/general context influence the degrees of freedom of a tobacco company (like Philip Morris)?
  - Do you expect changes in the future? Trends?
- Work with a table with the following columns: (1) trend, (2) impact on the industry, and (3) future changes?

PEST(EL) analysis

- PMI's response at that time: See website PMI (Philip Morris International)

Philip Morris International | Delivering a Smoke-Free Future: www.pmi.com

"We're building PMI's future on smoke-free products that are a better choice than cigarette smoking. Our vision: these products will one day replace cigarettes"

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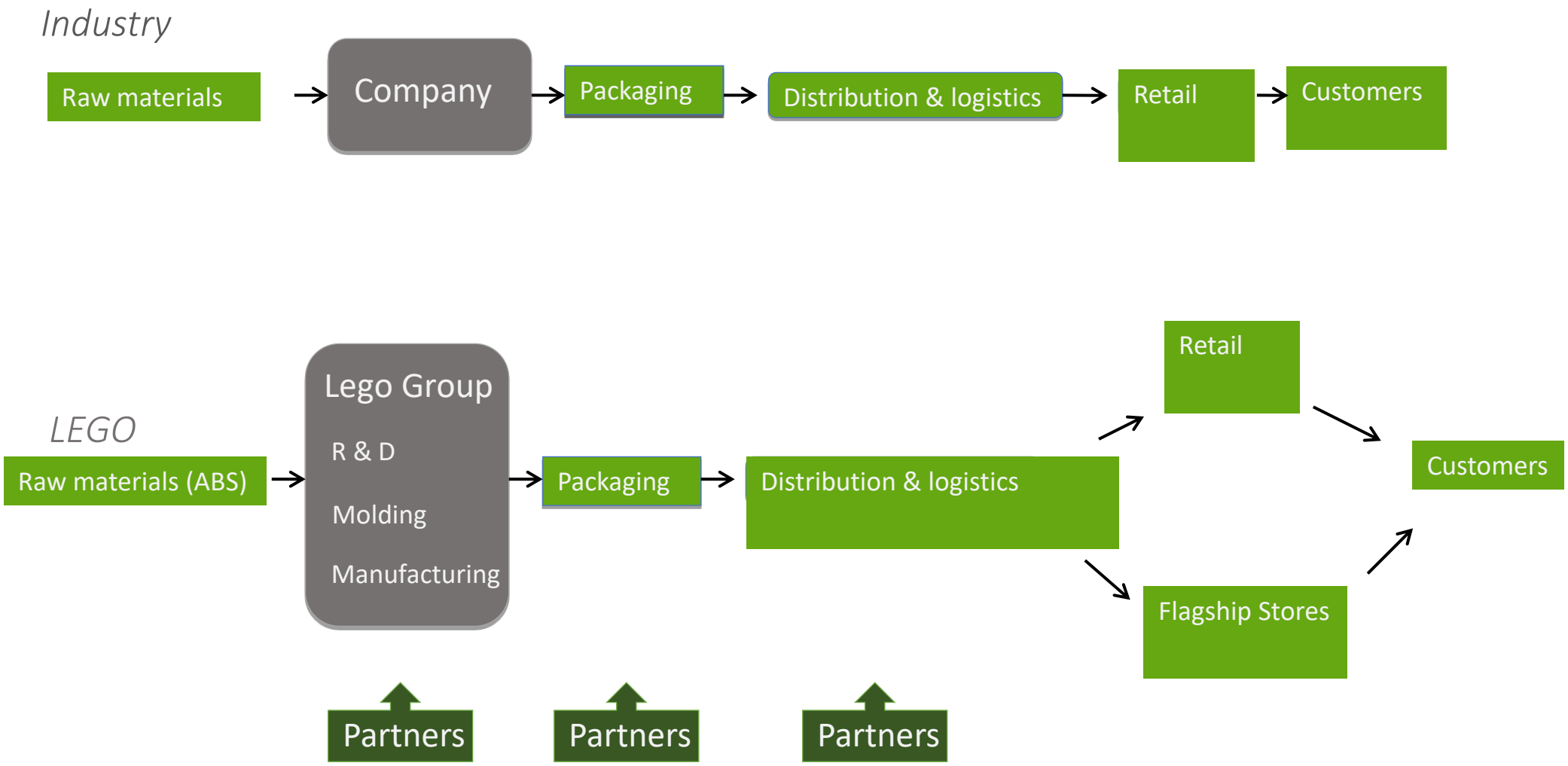
External analysis
Chain

External analysis – Chain

See earlier

- Primary industries
  - Upstream industries (extraction/processing)
- Secondary industries
  - Midstream industries (fabrication/assembly)
- Tertiary industries
  - Downstream industries (wholesale distribution/retail/services)

Industry/Company chain – Example



Industry / Company chain

Attention points:

- Where are the company's activities located in the industry chain?
- Who does what? Which party does what?
  - Is there a dominant player? Why?
  - Vertical integration?
- Who are the final customers? (B2B vs B2C)
  - Segments?
  - Analysis buying behaviour?
  - Problem solving – needs?
- How to create customer value? Necessary activities?
  - E.g., additional services

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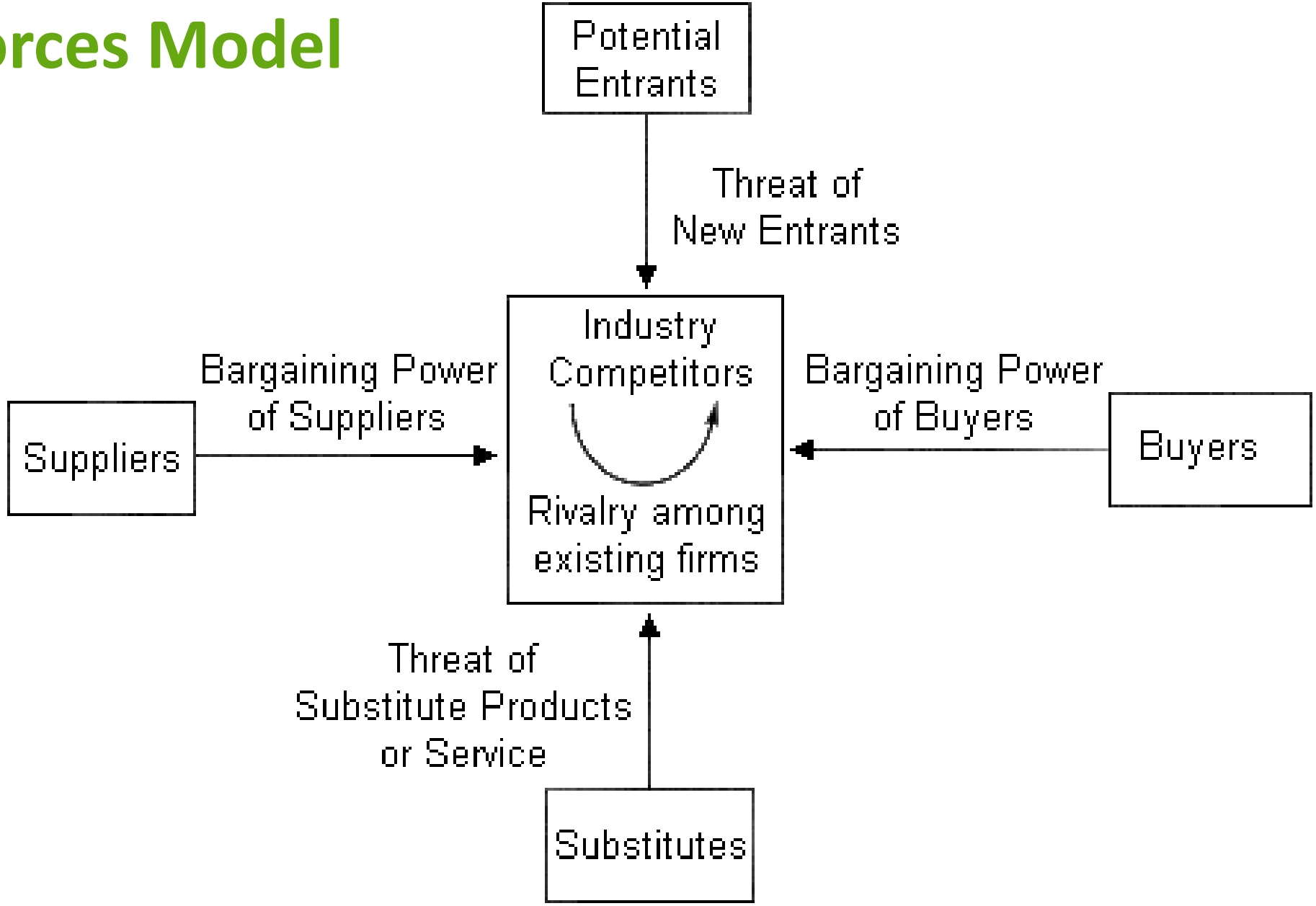
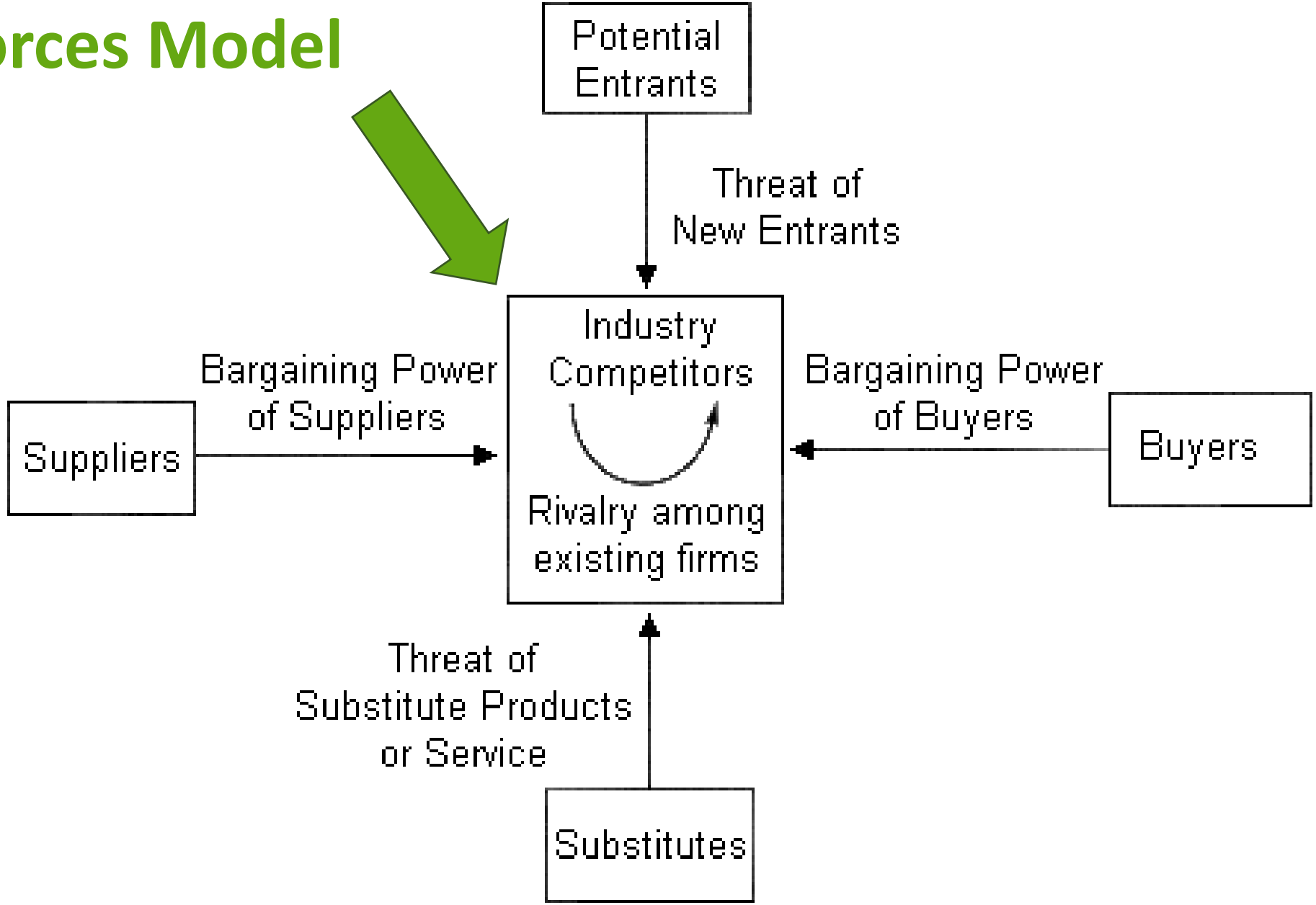
External analysis
(Industry) Competition
Five Forces

Five Forces Model



Five Forces Model



Five Forces Model: Internal Rivalry

Depends upon…

- CONCENTRATION RATIO

= the combined market share of the leading firms

- e.g., CR4 = market share of the four largest producers
  - In markets dominated by a single firm (e.g., in the early days of smokeless tobacco, Altria in the U.S. dominated the market), the dominant firm has large impact on the prices it charges
  - In markets dominated by two companies (e.g., soft drinks: Pepsi and Coca-Cola), prices tend to be similar, and competition focuses on advertising, promotion, and product development
    - Very easy to coordinate prices!

Five Forces Model: Internal Rivalry

Depends upon…

- CONCENTRATION RATIO
- = the combined market share of the leading firms
  - Widespread belief: higher concentration (thus, less firms) = higher prices
    - Contested by research! Only weak statistical evidence!
  - Important: Diversity of competitors (**strategic diversification and product differentiation**)
    - If companies are very similar in their objectives, costs, strategies, …; price competition tends to be lower. There is, however, still competition. Competition concentrates on e.g., marketing, promotions, …. (see Pepsi vs Coca-Cola)
    - **Strategic diversification** → a company expands its business into, e.g., a new market, products, or services. The company thus starts to expand its offer
    - **Product/service differentiation** → a company makes its products/services more appealing to the market (compared to competitors)

Five Forces Model: Internal Rivalry

Depends upon…

- **Product/service differentiation**
  - If products/services are very similar, there is more rivalry. Companies try to avoid this, by introducing switch costs for customers, product differentiation, …
  - Commodities! – prices are the sole basis for competition; e.g., agriculture => price wars and low profits
- **Excess capacity**
  - Unused capacity encourages firms to offer price cuts => to increase demand!
- **Exit barriers**
  - Difficult to leave the industry? Price wars!

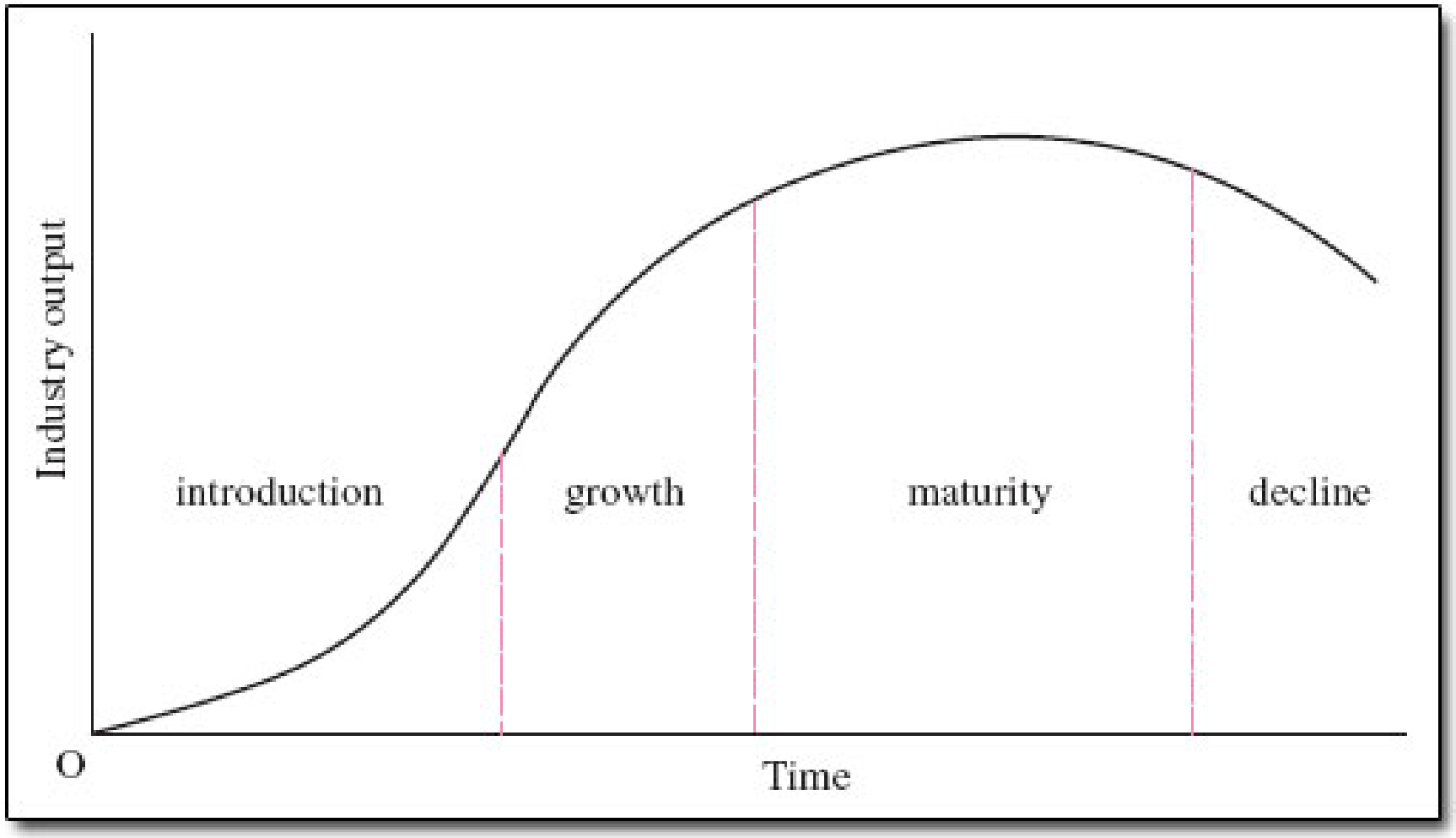
Five Forces Model: Internal Rivalry

Depends upon…

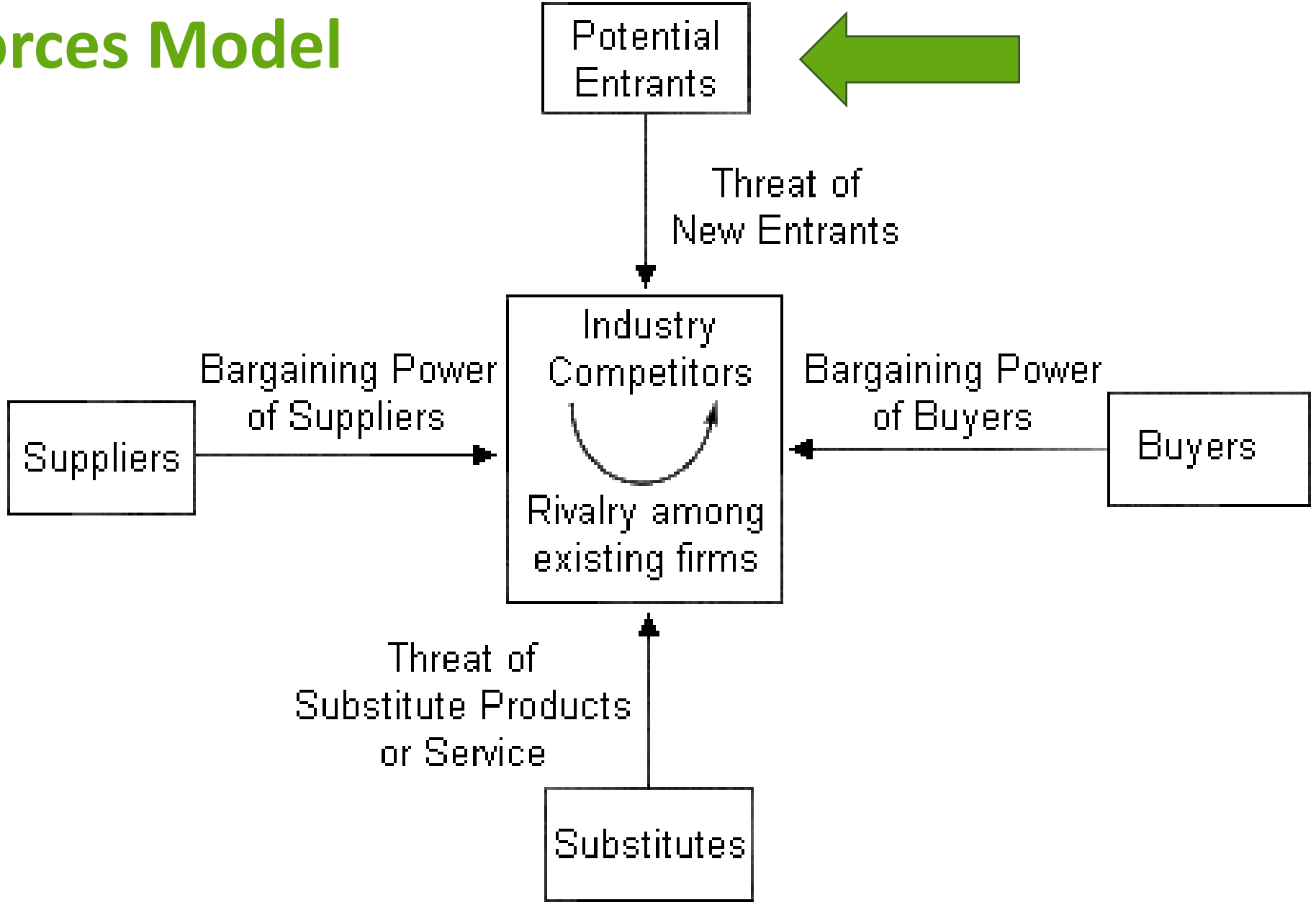
- **Cost structure**
  - How low can prices go? Depends upon the cost structure!
  - Fixed costs relatively high, compared to variable costs
    - Firm “wants to do business”, even if prices are low!
    - Thus, price wars (e.g., airlines)
- **Scale economies**
  - Cost benefits of greater volumes => aggressive price competition
- **Industry growth**

Internal rivalry: industry growth

Industry Life Cycle



Five Forces Model



Five Forces Model: Potential Entrants

- Concepts
  - **Sunk costs** (= investments that cannot be recovered on exit)
  - Absence of sunk costs makes an industry vulnerable to **hit-and-run entry** whenever established firms raise their prices above the competitive level

- In most industries, there are **barriers to entry**
  - If there are NO barriers to entry/exit, prices and profits tend towards the competitive level (cfr. a market with perfect competition)

Five Forces Model: Potential Entrants

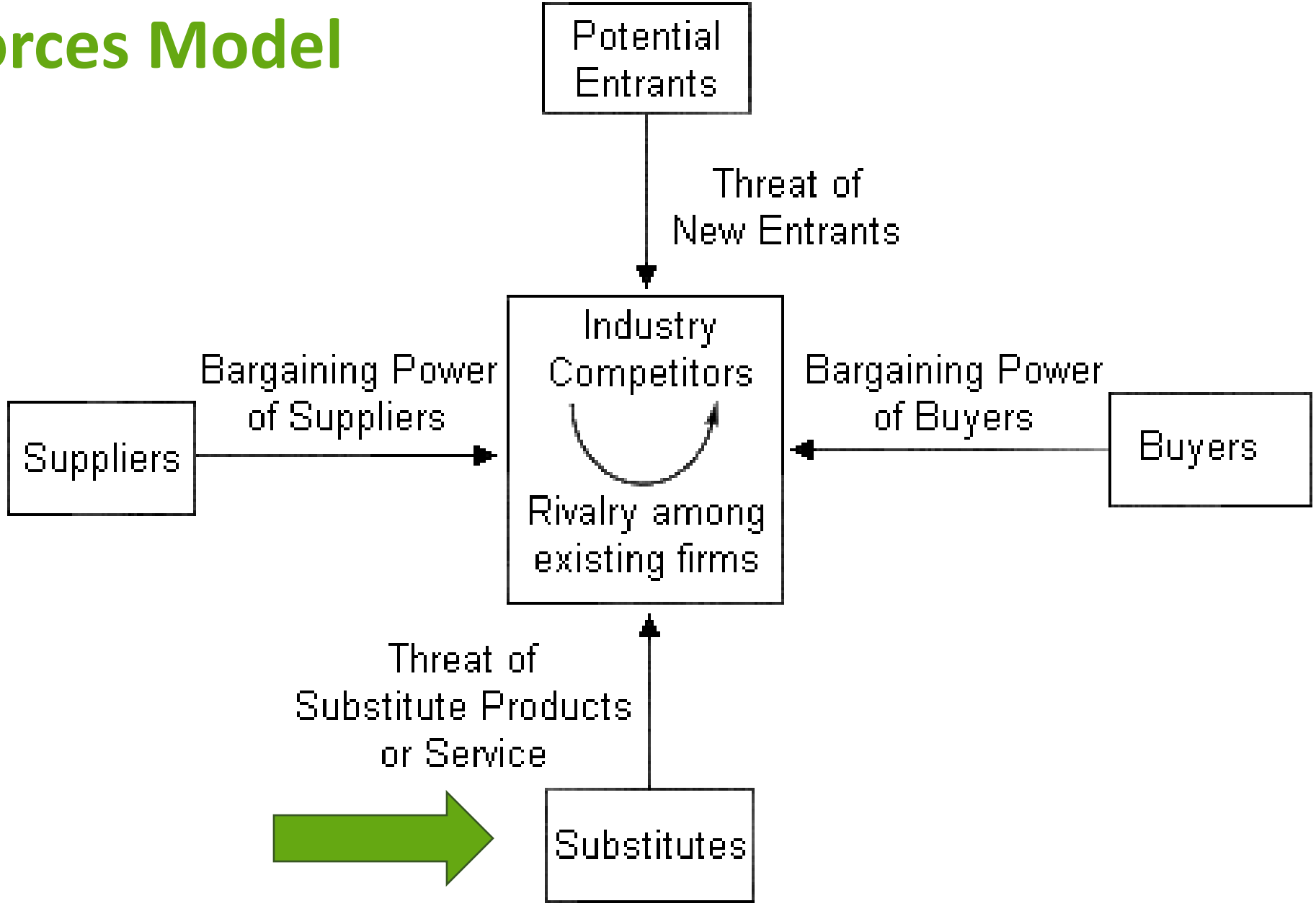
- New entrants → more competitors = decrease in industry concentration

- Block entrants via ENTRY BARRIERS
  - **Structural barriers**: natural advantages that incumbents have (knowledge, infrastructure)
  - **Strategic barriers**: strategic moves of incumbent firms to discourage new entrants (excess capacity, client binding,..)

Five Forces Model: Potential Entrants

- Entry Barriers
  - Economies of scale
  - Need of capital (capital requirements)
  - Expected reactions of incumbents, such as retaliation
  - Product differentiation & being loyal
  - Switch costs
  - Government & legal barriers (e.g., being active in another country)
  - Access to distribution channels (e.g., existing contracts)

Five Forces Model



Five Forces Model: Substitutes

- Availability of close substitutes
  - E.g., there are no close substitutes for petrol; consumers are comparatively insensitive to price
- Shown in: Price elasticity of industry demand
  - No close substitutes => demand is price inelastic!
  - How to calculate price elasticity?
  - = % change in demand / % change in price
  - = how much does the demand change, if price rises with 1%
  - E.g.: -2.5 => if prices increase with 1%, there will be a 2.5% decrease in demand = high price elasticity
- Importance of value creation!

Five Forces Model: Substitutes

VERSUS

VERSUS

VERSUS ?

Five Forces Model: Substitutes

Of course, macro trends can have an impact on the availability of substitutes! (E.g., rare earths)

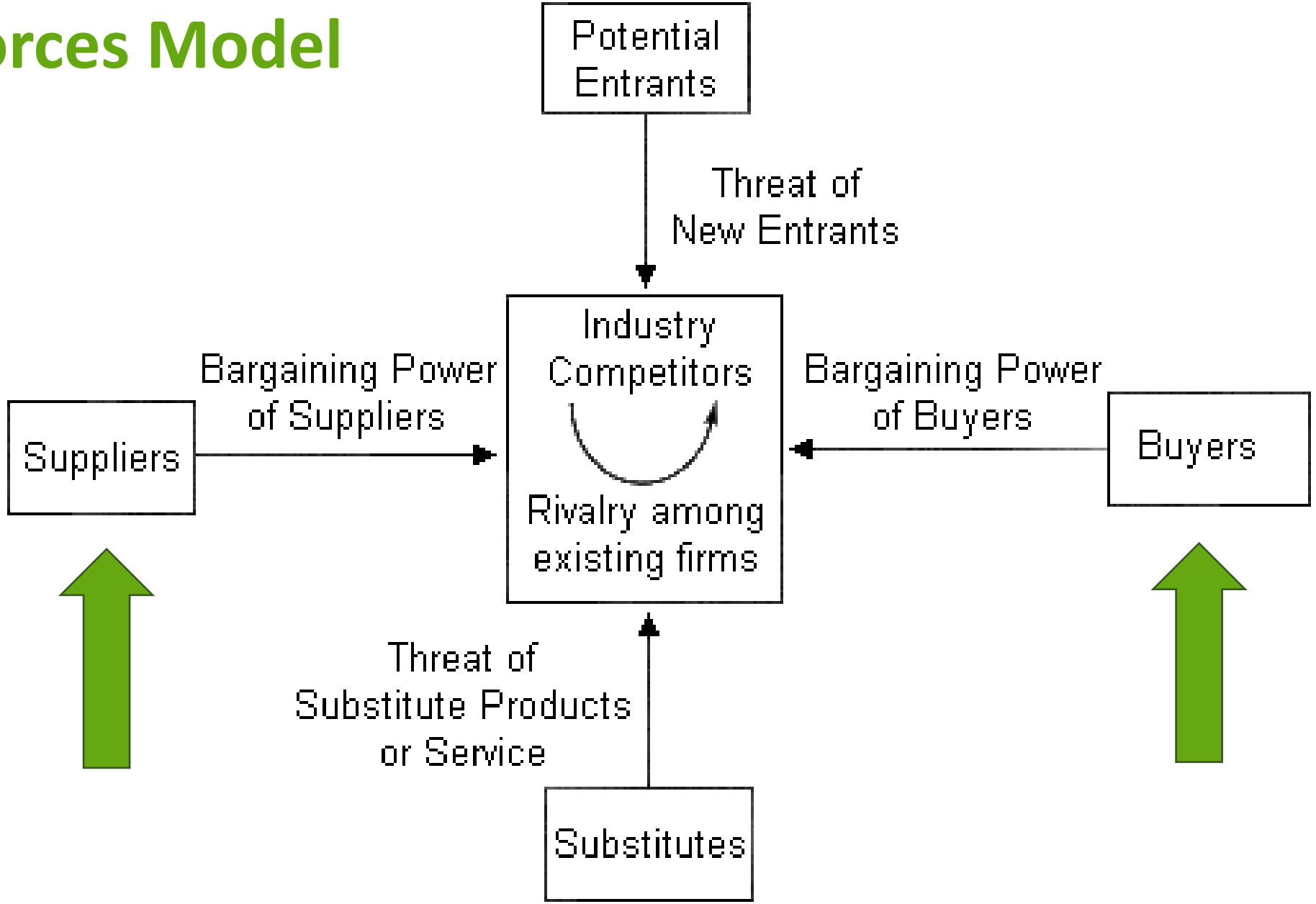
- Situation
  - China controls about 95% of the production of rare earths. Limited supply and “no substitutes” for rare earths. Rare earths are used in products such as plasma TVs, car motors, …
  - Prices were very high! Limited supply (controlled by China) & China sets higher prices for external companies vs. domestic companies
- Reaction of the market / macro environment
  - Financial speculations – buying rare earths => further price increase
  - Honda announced to “open a recycle plant” (or, the market thought they would…). In reality, they recycled about 375 kg in a lab. Goal of their announcement?
  - WTO – lawsuit against China => prices should not be higher for external companies. After 2.5 years (!), the WTO wins this lawsuit
  - Companies search for ways to re-engineer products to reduce or eliminate their dependence on rare earths (e.g., Toyota, motor that does not require rare earths)
- Result
  - Prices of rare earth are now lower, because of different forces
  - The search for substitutes / re-engineering
  - WTO lawsuit

=> You can deduct such changes / trends from (1) your five forces analysis, and (2) your PEST analysis

Five Forces Model: Complements?

- Complements increase the value of a good
- Value distribution?
  - Supplier with the strongest market position will receive highest profits
    - How?
      - Try to achieve monopolization, differentiation and shortage of supply in your own products
    - And
      - Try to encourage competition, commoditization and excess capacity in the production of the complementary product
    - Example: differentiate hardware products, and commoditization of software => hardware strongest market power

Five Forces Model



Five Forces Model: Power of buyers & suppliers

- Cfr. industry chain → value creation and **distribution**
  - How value is shared in terms of profitability, depends upon the relative economic power
- Power = **the ability to negotiate prices**
- Power depends on:
  - Buyers' price sensitivity
    - The greater the importance of an item as a **proportion of total costs**, the **more** price sensitive buyers are
    - The more critical a product is to the **quality of the buyer's product**, the **less** price sensitive the buyer is

Five Forces Model: Power of buyers & suppliers

Power depends on:

- Buyers' price sensitivity (cont.)
  - Availability of substitutes & differentiation
    - If products are not differentiated / substitutes are available, buyers are able to switch supplier on the basis of price. They are more price sensitive
  - Competitiveness among buyers
    - More competitiveness => buyers want price reductions from suppliers

→ See concentration ratio (next slide)

Five Forces Model: Power of buyers & suppliers

Power depends on:

- Relative bargaining power, depends upon
  - **Relative concentration of the market in question**
    - The smaller the number of buyers (thus, buyer market is more concentrated), the lower prices & profits in the supplying industry are
    - Thus:
      - n° of suppliers > n° of buyers → buyers have most power
      - Thus: **highest concentration level (= fewer firms) has most negotiation power**
  - **Purchase volume of downstream firms**
    - The greater the purchase, the greater the cost of losing a buyer
    - Lumpy orders! If lumpy orders, buyer has relatively more power

Five Forces Model: Power of buyers & suppliers

Power depends on:

- Relative bargaining power, depends upon (cont.)
  - Buyers' information
    - Better-informed = more power to bargain
  - Threat of forward/backward integration

Five Forces Model: Attention points

- It is a **tool**, not a science
- It is used **to assess industry trends**
- Level of analysis = industry, not the individual firm → use to define CSF!!

- Shortcomings
  - Does not take into account all aspects of a firm's strategy (e.g., the power of marketing is not always taken into account)
  - Role of the government is ignored → importance of PEST!

Five Forces Model: Video

Gives you some interesting viewpoints from Michael Porter

Gives you some examples!

Watch at home

https://www.youtube.com/watch?v=mYF2_FBCvXw

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  - **Other possibilities**
  - **SWOT (Focus on Opportunities and Threats)**

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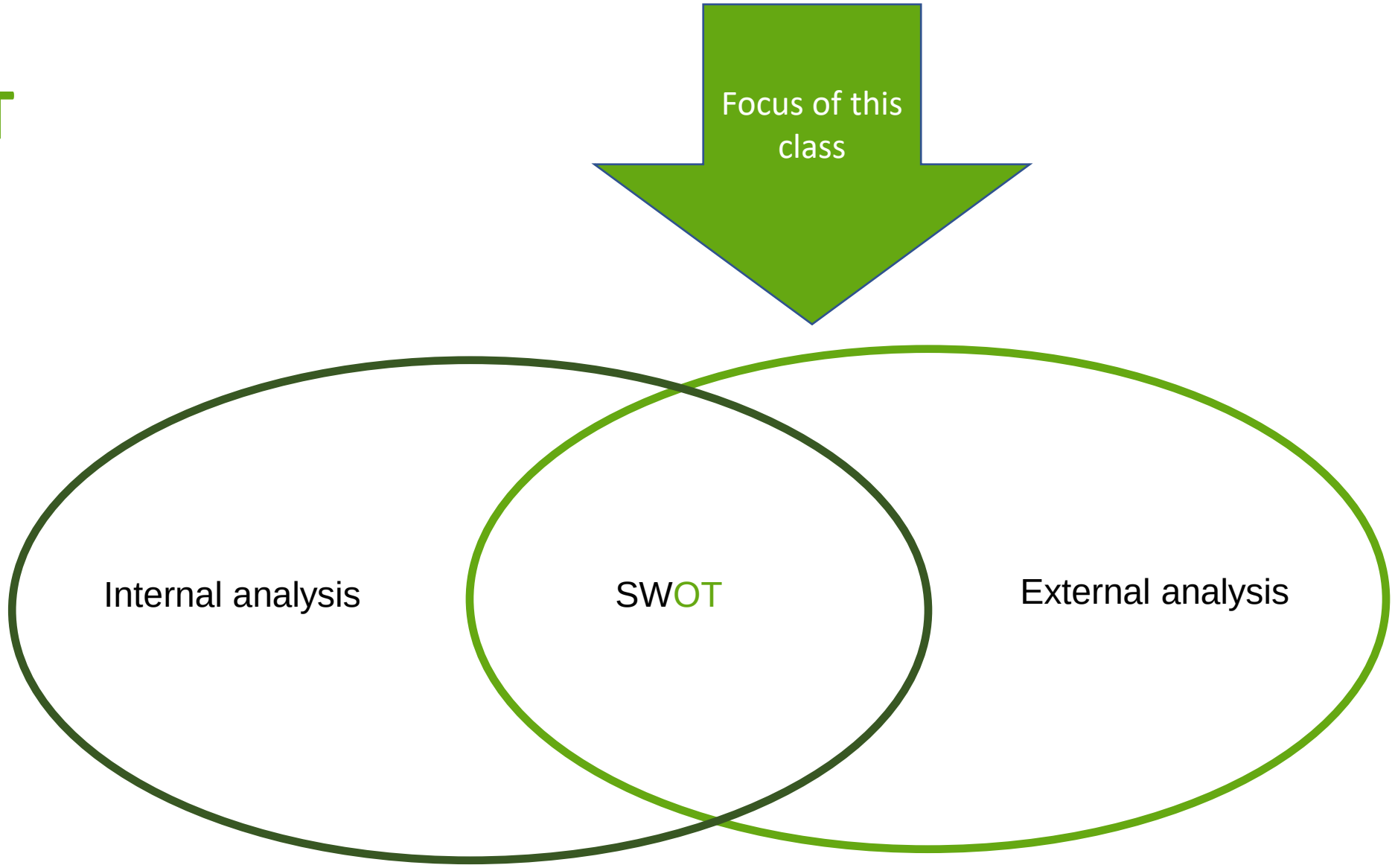
External analysis
Additional tool – SWOT

SWOT


Focus of this class
Internal analysis
SWOT
External analysis

Opportunities and threats

Opportunities

- Opportunities most relevant to a company are those offering
  - **Good match** with its financial and organizational resource capabilities
  - **Best prospects** for **profitable long-term growth**
  - **Potential** for **competitive advantage**

Threats (examples)

- Emergence of cheaper/better technologies
- Introduction of better products by rivals
- Entry of lower-cost foreign competitors
- Onerous regulations
- Rise in interest rates
- Potential of a hostile takeover
- Unfavorable demographic shifts
- Adverse shifts in foreign exchange rates
- Political upheaval in a country

SWOT

- Often not enough depth (lists)
- Too general
- Relative strengths of factors within “S”, “W”, “O” and “T”’?
- Relative strength of actors? (customers, suppliers, government, …)

- Requires ACTION!
  - Use a SWOT analysis to define (for example)
    - How the company’s strenghths can be used to overcome threats
    - **Combination internal & external analysis!**

End Goal

DEFINE THE INDUSTRY'S CRITICAL SUCCESS FACTORS

(Qualifiers AND Differentiators)

- 'Qualifiers'
  - Necessary to "survive"
  - Avoid failure
- Differentiators
  - Lead to "success"
  - Necessary and sufficient conditions

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Case

Break out

- Case example: 30’-40’ brainstorm
- Case: Tahitian Black Pearls Market
- Questions
  - 1) What are the key issues Manea Tuahu faces? Start from its “basic” decision: (1) produce pearls again, (2) lease lagoon rights, (3) do nothing
  - 2) Perform a Porter’s Five Forces analysis of the black pearl industry
    - Use the concepts discussed in the theory section
    - Define the overall strength of each force, based on your analysis
    - Remember: the pearl producers are the incumbents!
  - 3) Perform a (SW)OT analysis of the black pearl industry. Focus on Opportunity and Threats

1. Key issues

Options:

- Begin to produce pearls again
  - Will Tiare be the grafter? Will he hire a professional?
  - Which distribution channel is most effective? Use multiple distribution channels?
    - Small producers do not have a sufficient high number of high quality pearls to justify holding their own trade shows in foreign markets
    - Second-tier retailers (local market) => Manea had contacts with second-tier retailers in japan that buy in small lots but pay relatively high prices for pearls => BUT: divorce of his daughter (Japanese husband…)! (Hawaii market instead?? Can be targeted by Tiare)
    - Work through a wholesaler such as Inka
    - Team up and hold auctions or shows in foreign markets
- Lease its lagoon rights
  - No exact figures given in the case, but might be about $28,000, taking into account that he could receive 5% of the value of the pearls produced
  - But! Should the lagoon rights be leased to large producers? (local hostility!)
  - The chances that he will be able to lease its lagoon rights to a large producer seem rather low
- Do nothing with regards to the black pearl industry
  - “Lower” wage but more free time

2. Five Forces

Competitors (Internal Rivalry) – focus: pearl producers, they are the incumbents!!

- Small producers vs. Large pearl producers
  - Large producers have cost and market access advantages
  - **Strategic diversity** of competitors is rather high, which is a result of strong competition (they each have a different strategy, different strategic viewpoint, …) → the strong competition is visible by the low product differentiation (see next slide)
- Production has been increasing year to year, with decreasing gram per price. This shows that the market is maturing → cfr. **industry life cycle**
  - In such markets, competition is higher, because an increasing number of companies fight over a relatively fixed number of customers

2. Five Forces

Competitors (Internal Rivalry) – focus: pearl producers!!

- **Product differentiation:** as soon as the pearls reach quality thresholds, there is very low product differentiation, thus internal rivalry is high (**low switching costs)**
- **Scale economies** → cost benefits when greater volumes can be sold; thus high “aggressiveness”

→ Strong force

2. Five Forces

Substitutes

- Close substitutes: other types of jewelry/precious stones. E.g., diamonds, …
- Remark
  - Any other type of lower-cost jewelry → other price/value offered to customers – these are no close substitutes and are no direct threat

=> Rather strong force because

- Even though for luxury jewels, price elasticity is rather low, pricing of close substitutes is most of the time competitive

AND

- Their function is “similar” (diamond versus pearl earrings) → close substitutes
  - Thus: We can expect that if the price from pearls would increase, that customers would turn to for example diamonds (price elasticity of “luxury” jewels is low, but customers will switch between different types of luxury jewels (= “close” substitutes))

2. Five Forces

Threat of new entrants

- Moderate force because
  - Costs of entering the industry are not that high, at least not at a low production level (“low” capital requirements (need for capital), if you have lagoon rights)
  - Product differentiation is low (cfr. quality requirements!), customers can easily change supplier
- But, at this moment
  - Limited by lagoon rights (structural entry barrier)
    - Not in all lagoons, conditions are good enough for pearl production
    - The rights to these lagoons are held by families
- These lagoon rights ensure that threat of new entrants is not that high
- Critical remark:
  - Greatest threat comes from other Pacific Island nations such as the Cook Islands or Hawaii (started pearl production)

2. Five Forces

Suppliers

- Limited, mainly ropes, small boats, …
  - **Little power** because
    - **Concentration level of buyers is higher** (= there are less buyers than suppliers), thus suppliers have less negotiation power (there are relatively more suppliers of rope, small boats, … than buyers)
    - **Availability of substitutes is high**
- Suppliers of spat to the pearl producers
  - Small pearl producers can collect their own spat (although it increases their time to market!)
  - Realistic **threat of backward integration** in the case of small pearl producers, because producing its own spat reduces costs
  - Thus: spat suppliers have little power

2. Five Forces

Customers (no specific information about the number and size of customers provided)

- Wholesalers and retail chains
  - **Buy large quantities** → purchasing power is high
  - **Demand high quality**
  - Small pearl producers will probably not sell to these chains (except through aggregated way, GIE auctions)
- For small pearl producers
  - Smaller wholesalers in French Polynesia, local retailers, small overseas retailers
  - Many small pearl producers trying to sell to them, thus **concentration level** of the buyers is relatively higher (= there are less buyers than suppliers) → power relatively higher for buyers

3. (SW)OT analysis

Opportunities

- Possibility of development of the Hawaiian pearl market
- Lagoon rights can be leased
- Several aspects from the industry chain can be interesting, such as spat production
- Quality “image”: government regulations regarding quality (can also be a threat for small farmers!)

3. (SW)OT analysis

Threats

- Maturing market
- Increased competition from large French Polynesian producers at the GIE auctions
- Competition from other geographical locations, such as the Cook islands and Hawaii
- Disease
- Additional government regulations, such as the quality requirements recently put into place (can also be an opportunity!)

Next class

Internal analysis

See BB: read “Cirque du Soleil: Can it Burn Brighter”