TECHNISCHE HOCHSCHULE
OSTWESTFALEN-LIPPE
UNIVERSITY OF
APPLIED SCIENCES
AND ARTS

Management Skills and Business Administration

Management

Prof. Dr. habil. Andreas Welling

Agenda

- **Organization**
- **Business Organization**
- **Value Chain**
- **Strategic Management**
- **Human Ressource Management**
- **Innovation and Technology Management**

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Organization

Terminology

Company Well-planned economic unit in which production factors are combined, to produce and sell goods an services (translated: Wöhe 2013, S. 27).	**Enterprise** Company or group of companies in the market-based economic system (translated: Wöhe 2013, S. 28)
Firm Name for a business run by a sales man/individual (translated: Wöhe 2013, S. 28).	**Corporate group** A group of leagally independent enterprises, united under an overall management (often a ruling company) (AktG, $18)

Example structure of a corporate group

Source: Volkswagen AG

Classification of organizations

- **Private-sector organizations:**

  - Commercial principle

  - Management by owner or by individuals nominated by the owner

- **Public-sector organizations:**

  - Principle of cost coverage or principle of subvention

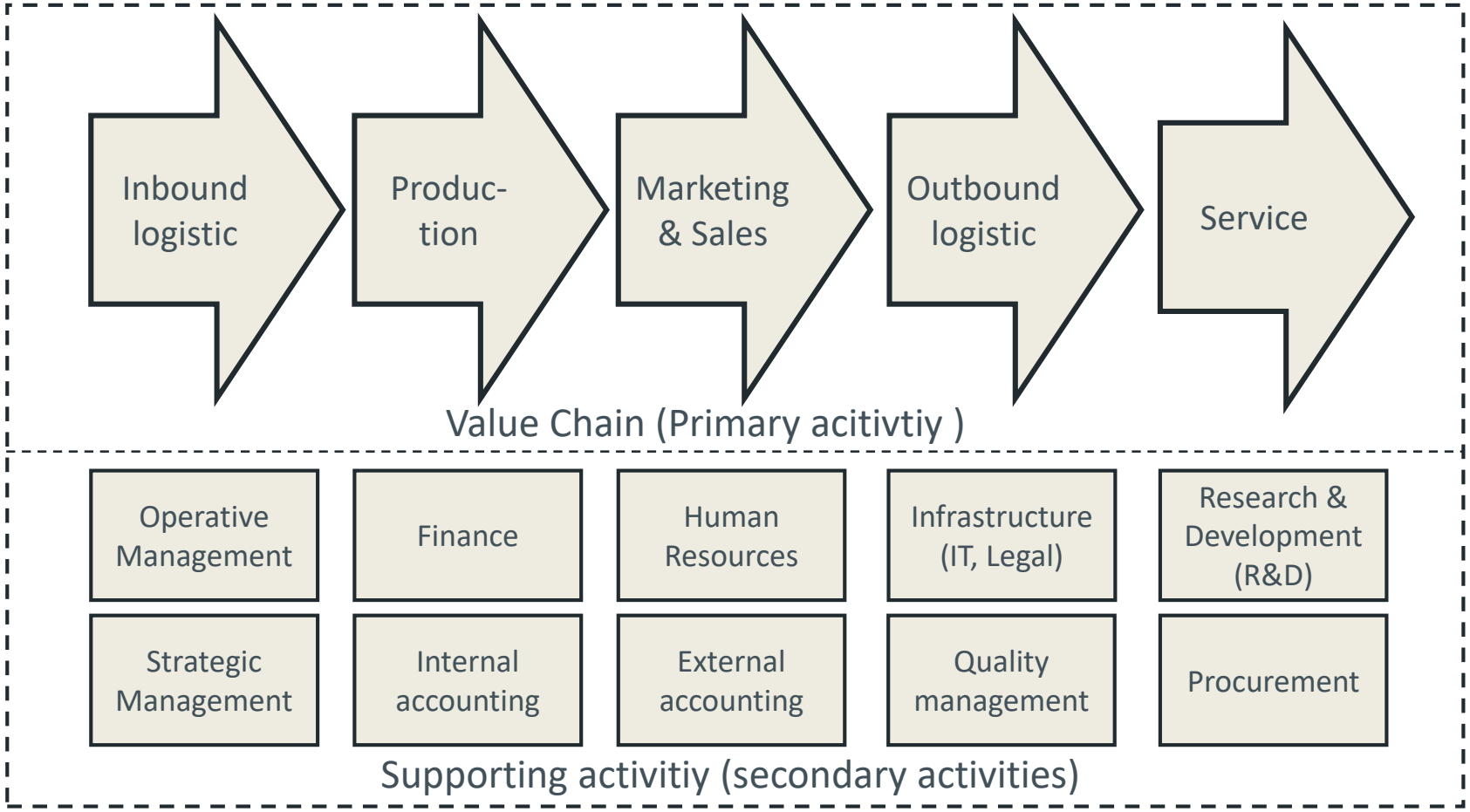
  - Managed by the individuals chosen by the state

- **Non-profit private organizations:**

  - Principle of cost coverage

  - Management by owner or by individuals nominated by the owner

Structure of a business organization



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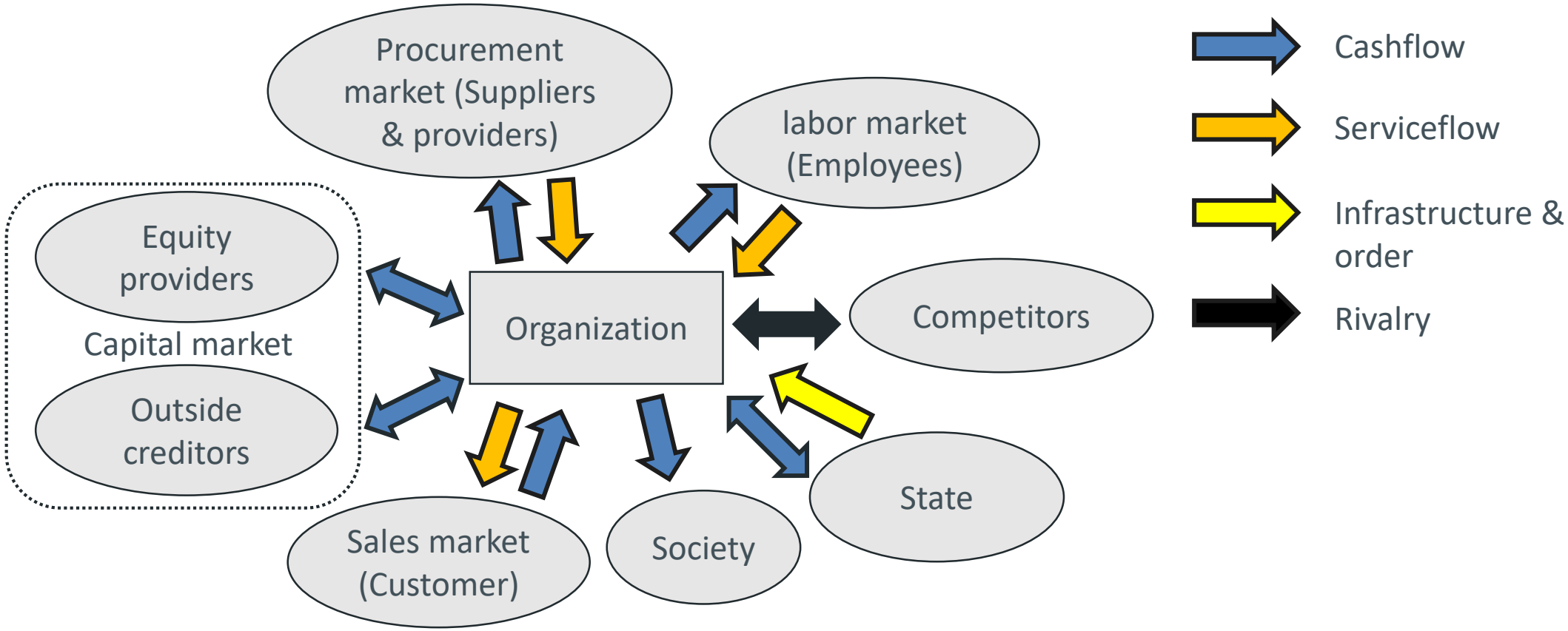
Organizational environment



Shareholder

- **The owners of enterprises**
- **Shareholder-Value-Approach:**

  The primary goal of an organization is, to create a return on investment for the owners that is as high as possible
- **„Risk and control belong together“ -> efficiency**
- **Management should primarily serve the owner‘s interests**

Stakeholder

- **Everyone, who has an interest in the organization**
- **Stakeholders have opposing interests**
- **Stakeholder interests are regulated by law:**
  - **- Outside creditors (creditor protection laws (German Handelsgesetzbuch HGB, AktG, ...))**
  - **- Employees (participation, labor law, minimum wage)**
  - **- Suppliers (reservation of ownership)**
  - **- Customers (consumer protection)**
  - **- State/Society (environmental laws, tax laws)**
- **Partially regulated through the market**

Competition

- **Competition is a competetive struggle between companys**
- **A competitor of a company is anyone, who is able to offer services instead of the company**
- **Synonyms: Rival, market player**
- **Existing market with fierce competition (red ocean)**
  New market without competition (blue ocean)

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Competition strategy according to Porter

- **Three main types of competition**
  - **Leading in pricing (cost leadership strategy)**
  - **Leading in quality (differentiation strategy)**
  - **Offering special solutions (niche or focus strategy)**
- **Organizations should deciede on one strategy**

  → „The firm stuck in the middle is almost always guaranteed low profitability“ (M. Porter)

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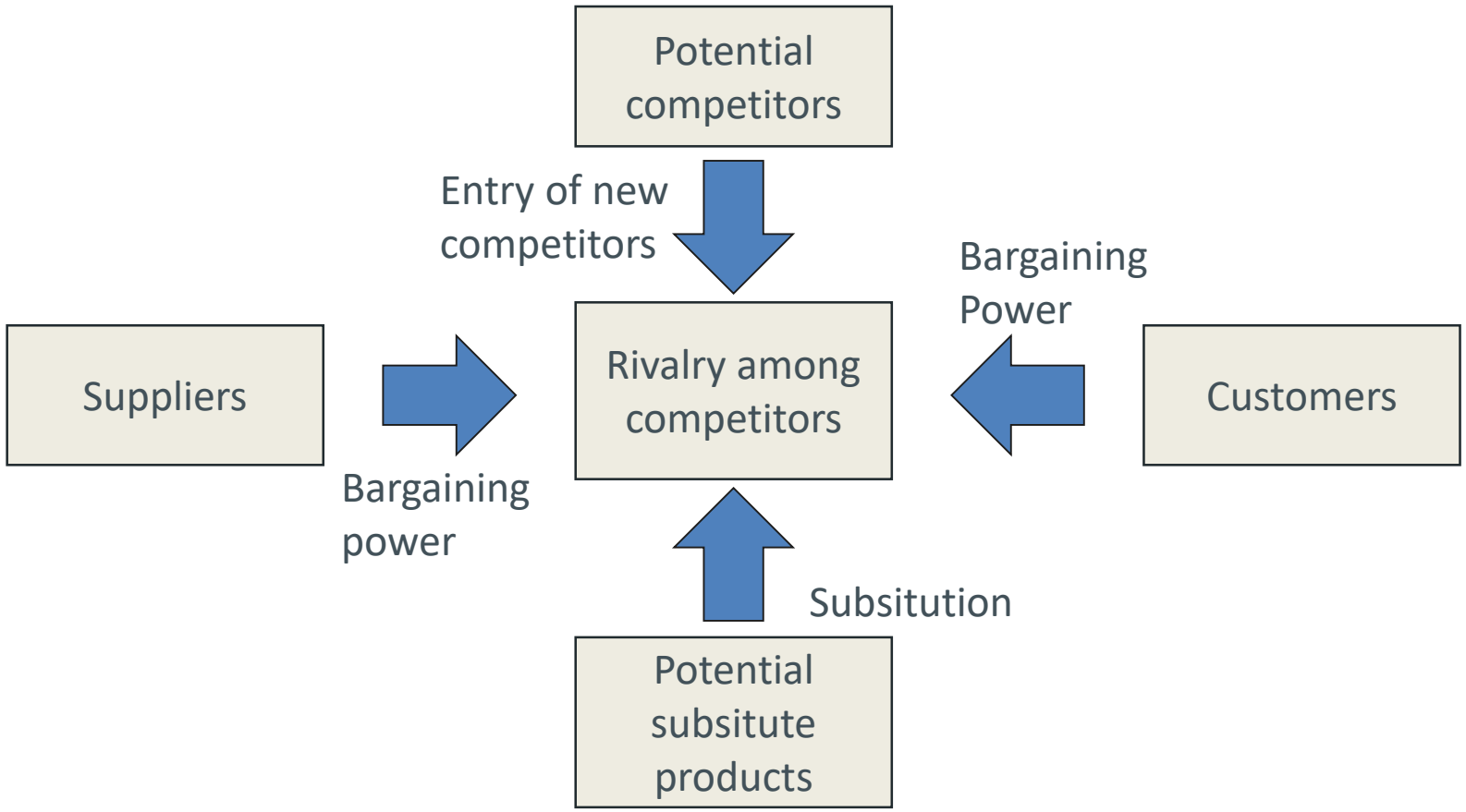
Porter‘s Five Forces



Sole Proprietorship

- **Only a single natural person as associate**
- **Sole proprietor is liable with his entire business assets and private assets for all business obligations**
- **Is no legal person**
- **Important examples: freelancer, small traders**

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Partnership

- **Shareholders are personally liable for the company's obligations**
- **Shareholders collaboratively manage the company**
- **Is no legal person**
- **Lower tax burden, founding costs and disclosure obligations**
- **Important examples: GbR (German private partnership), OHG (German commercial partnership), KG (Limited partnership)**

Corporations

- **Owners are only liable with the contributed assets**
- **Separate management (can be the owner/s)**
- **Legal person (is able to do business in their own name)**
- **Easier owner change and succession**
- **Important examples: Limited company (GmbH, UG (haftungsbeschränkt)), public limited company (AG), KGaA, SE**

German limited company (GmbH)

- **Minimum share capital 25.000 €**
- **Bodies of a limited company:**
  - **Meeting of shareholders (Stimmanteil = Kapitalanteil)**
  - **Managing director**
  - **Supervisory board (voluntary or obligatory)**
- **Distribution of profits:**
  - **Managing director receives resonable salary**
  - **Gewinne werden thesauriert oder entsprechend der Gesellschaftsanteile an die Gesellschafter ausgeschüttet; Beschluss darüber in Gesellschafterversammlung**

German public limited company (Aktiengesellschaft AG)

- **Basic capital at least 50.000 €**
- **Bodies of a public limited company:**

  - Shareholder‘s meeting (1 share = 1 vote)

  - Executive board

  - Supervisory board

- **Distribution of profits:**

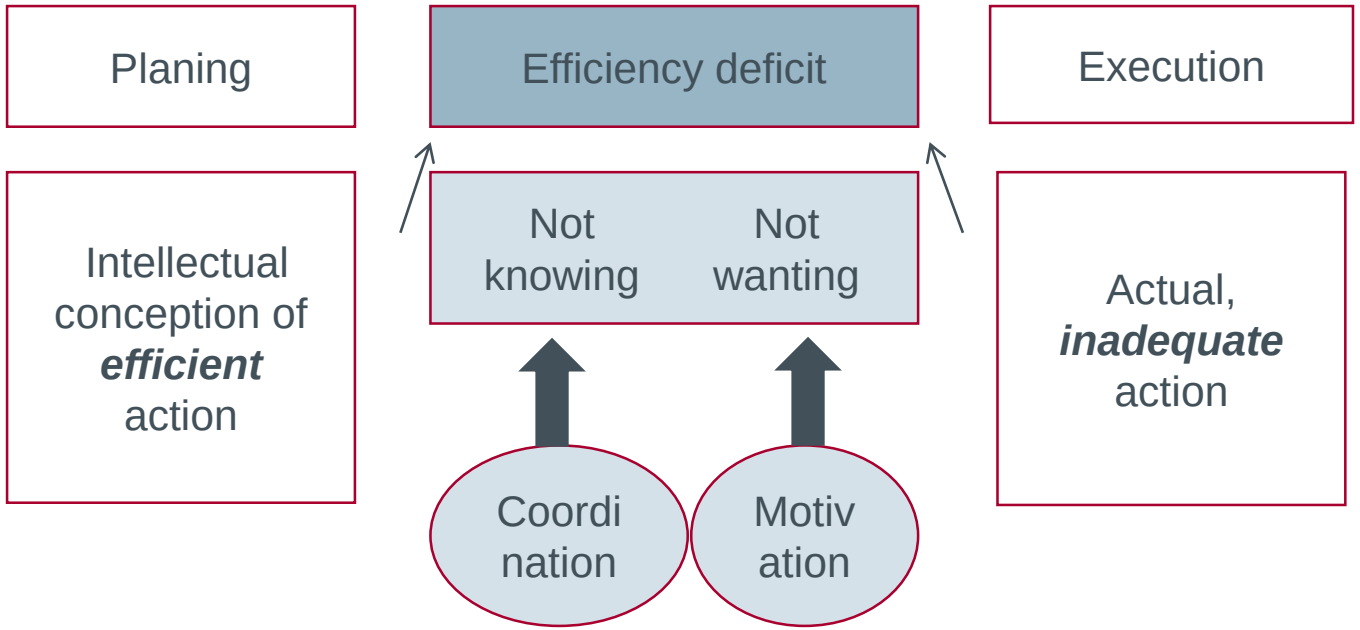
  Profits are ploughed back or distributed according to number of shares (dividends) the shareholders (stockholders) own; Beschluss darüber in Hauptversammlung

Limited partnership

- **At least two partners (can be legal entities)**
- **At least one partner is general partner (Komplementär). The general partners manage the corporation and are fully liable**
- **All other partners are limited partners (Kommanditisten) and are only liable with the invested capital**
- **Mixed forms are possible, e.g. in a GmbH & Co. KG is the general partner an GmbH**

Business organization

Business organization and HR management



- Organization → Coordination
- HR Management → Motivation

Quelle: Einführung in die Allgemeine Betriebswirtschaftslehre, Wöhe, 2013, S.101.

Organizational regulations

- **Organizational regulations bring transparency, predictability and continuity to operational decision-making processes.**

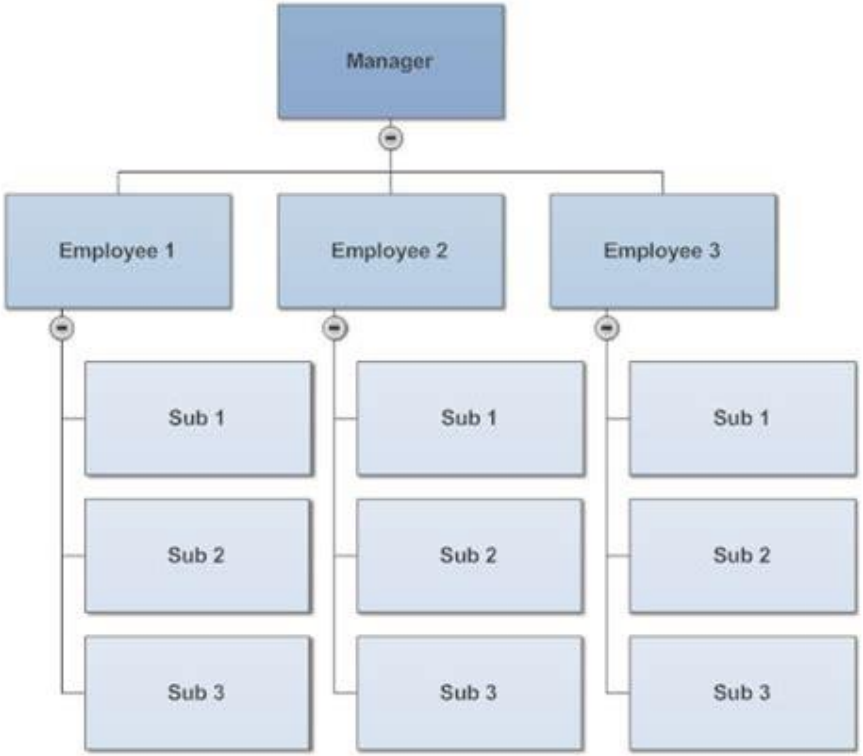
  →Threat: generalization, rigidity, bureaucratization

Advantages	Disadvantages
Relief function for the management	Erfolgseinbußen durch bürokratische Routineentscheidungen
Rationalization function through division of labor	Loss of motivation due to limited scope for decision-making and lack of identification of the workers with the plant
Minimizing costs by enabling mass production	

(Source: Einführung in die Allgemeine Betriebswirtschaftslehre, Wöhe, 2013, S.102 (translated))

Single line system

- **Used by small/medium companies**
- **each office reports to only one authority**
- **streamlined, clear organization**
- **implementation of decisions can be tracked well**
- **Used by organizations that are too large: Obstruction or distortion of information flow due to long routes**



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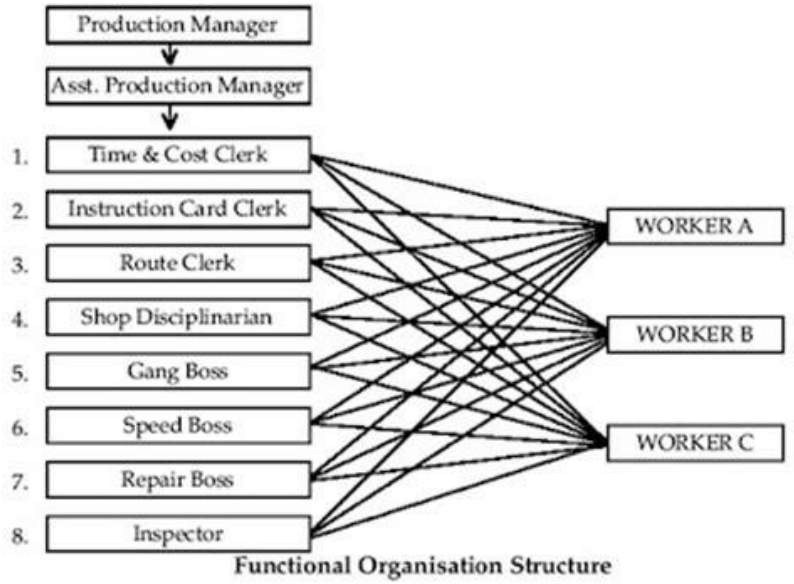
Multiple line system

- **Often used in small companies (e.g. craft enterprises)**
- **a subordinate unit can receive instructions from several superordinate units**
- **specialization of management through distribution of functions**
- **high problem-solving capacity**
- **Problems with the demarcation of responsibilities**



Functional Organisation Structure

Line and staff organization

- **Form of the single-line system extended to include staff positions.**
- **The staff instructs or advises the assigned supervisor**
- **Used in medium-sized and larger companies**
- **Quality of decision-making is increased**
- **Relief for managers**
- **Potential for conflict between line and staff**
- **Transparency of decision-making processes is lost**

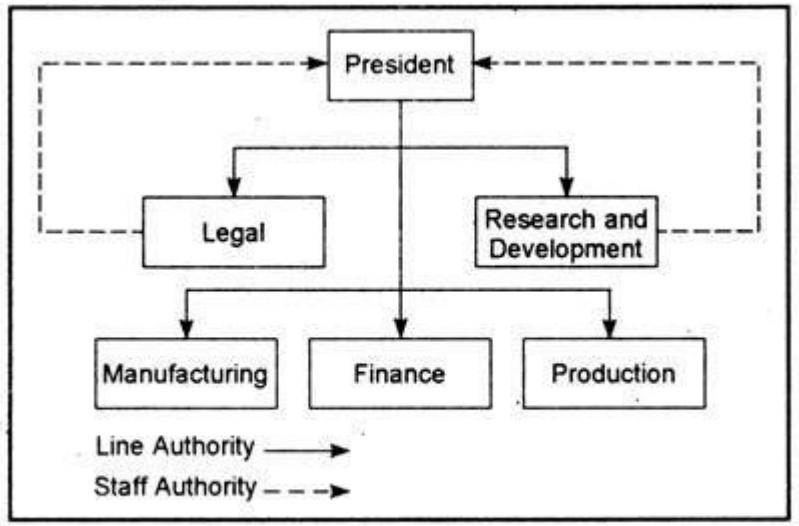
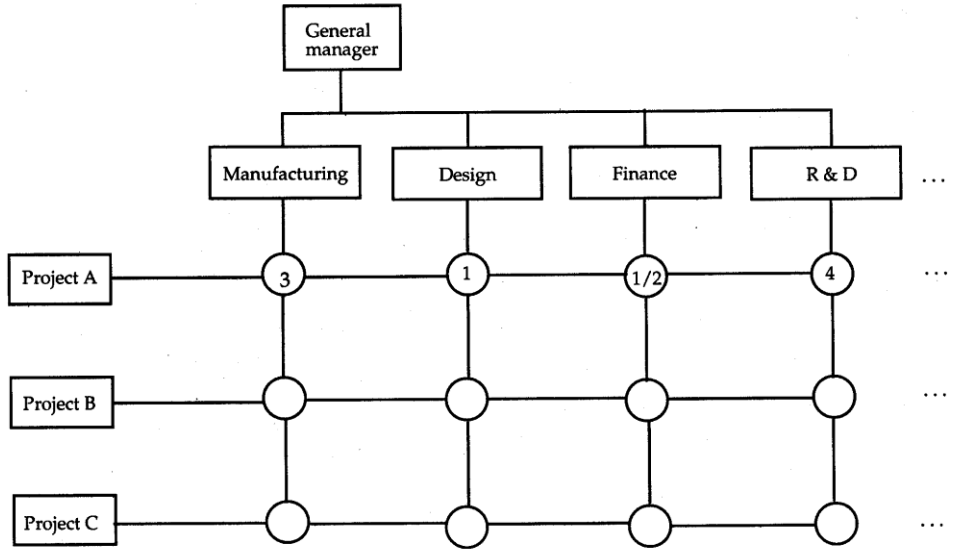


Fig.10.15 : Staff authority is advisory and normally flows upward

Matrix organization

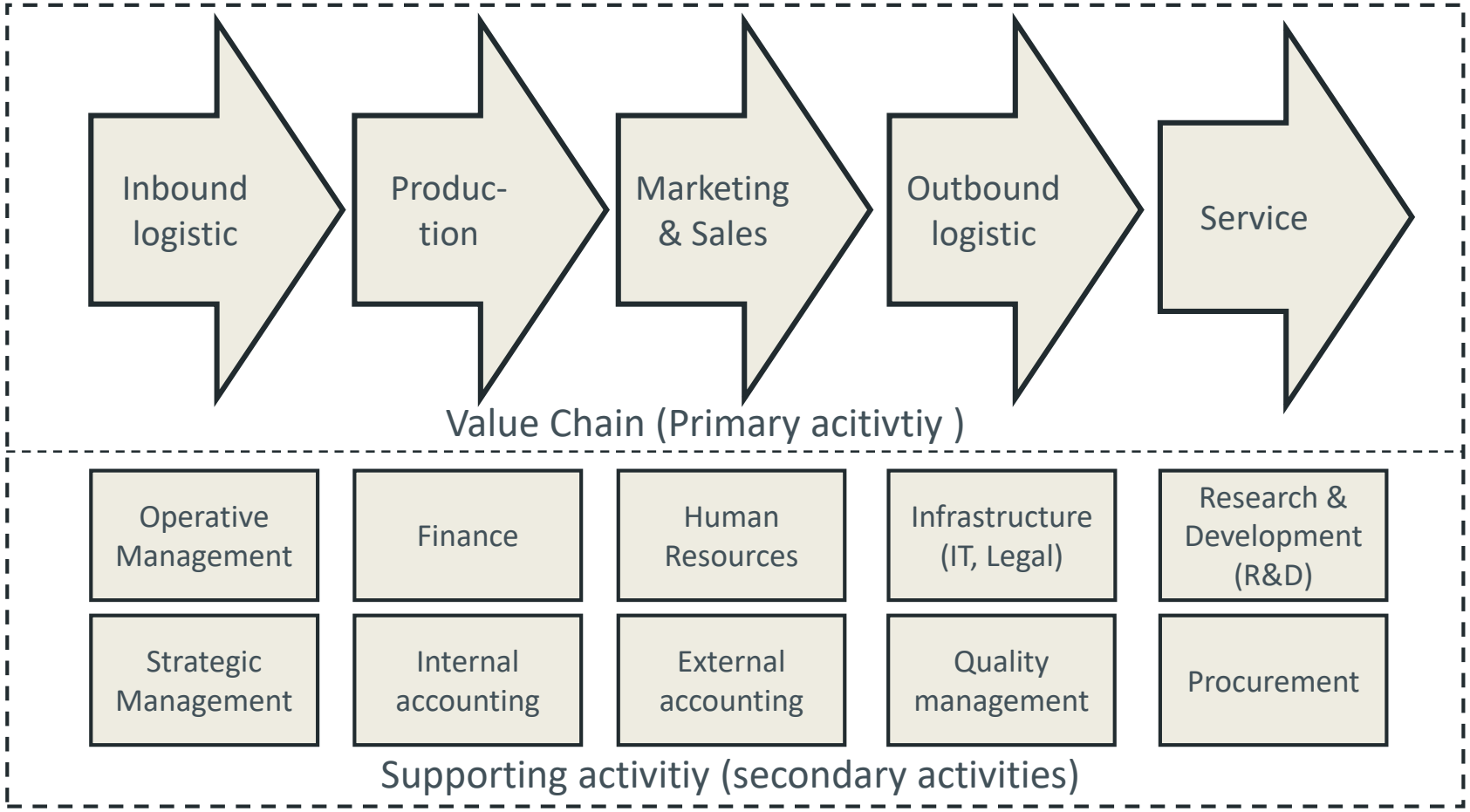
- **Form of multi-line organization**
- **Mostly in large companies**
- **Employees are in two equal-ranking command relationships**
- **Shorter communication channels**
- **Flexible consideration of aspects relevant to competition**
- **Attribution problems of successes and failures**



Video

Value Chain

Structure of a business organization



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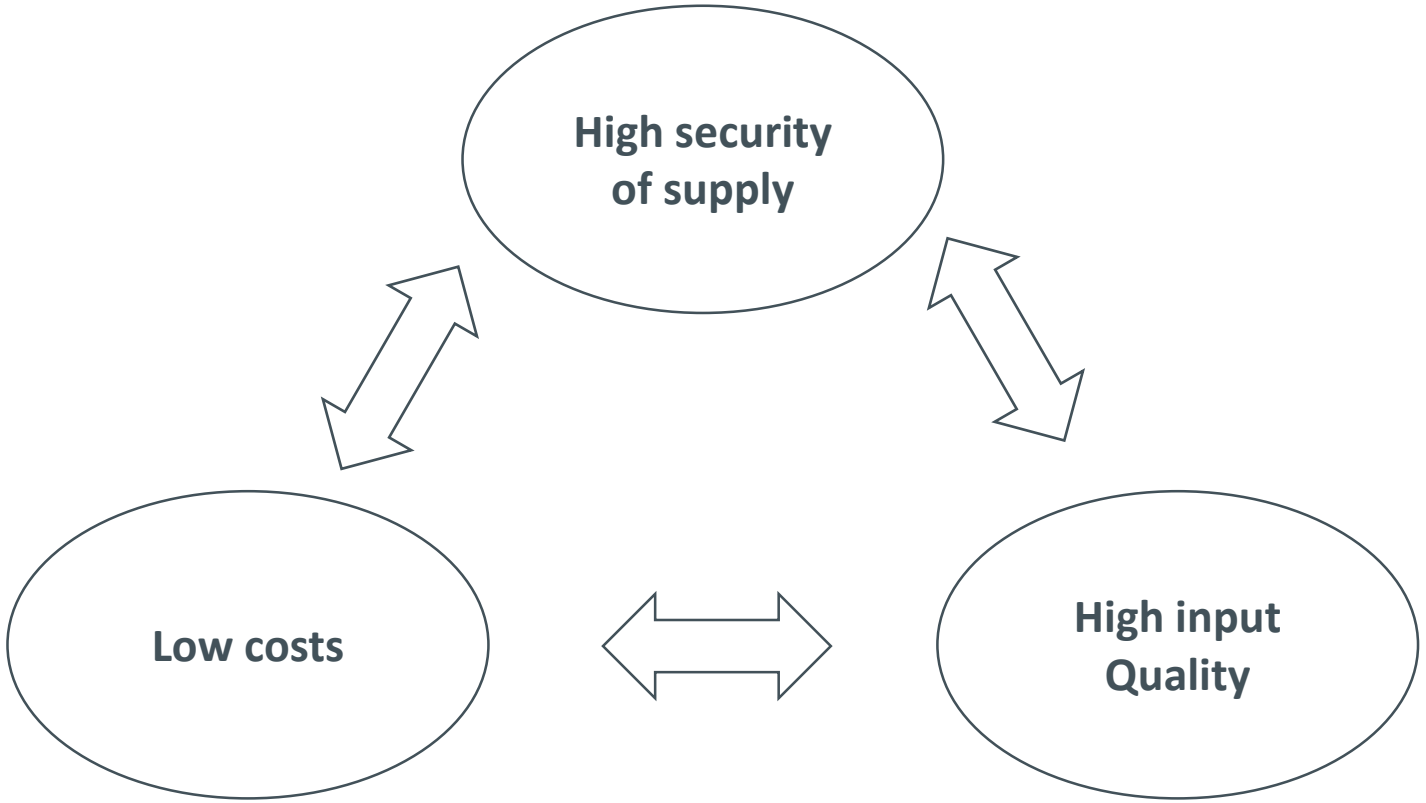
Goals of Procurement



→ **The goals of procurement are competing goals**

Single vs Multiple Sourcing

- **Single Sourcing (only one supplier per input)**
  - **+ Large quantities and lower costs**
  - **- Production stop if supplier fails**
  - **- high bargaining power of the supplier**
  - **- no incentive for improvement at the supplier**
- **Dual Sourcing (two suppliers per input)**
- **Multiple Sourcing (multiple suppliers per input)**

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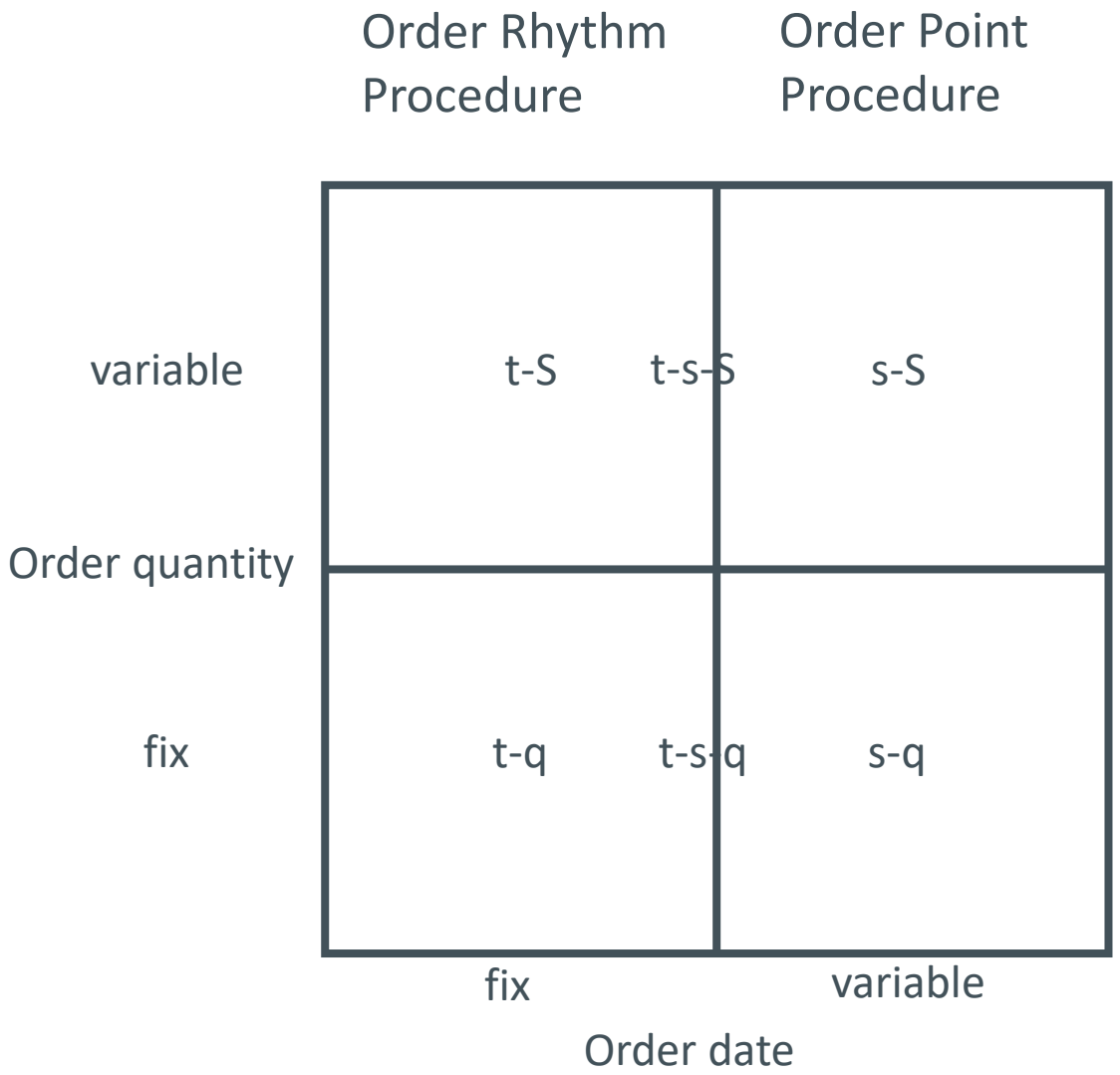
Order policies

t-q: Regular order of the quantity q
t-S: Regular replenishment to the amount S
s-S: as soon as s is undershot, fill up to S.
s-q: as soon as s is udnershot buy the quantity q
t-s-S: Ceck regularly, if s is undershot,
if yes fill up to S
t-s-q: Check regularly, if s is udnershot
if yes, buy quantity q



q Order quantity
t Length of time interval between orders
s Stock before procurement
S Stock after procurement

Costs influenced by order policy

- **Immediate Procurement Costs**

  → regardless of the number of orders as long as there is no volume discount

- **Indirect Procurement Costs**

  Costs of the ordering process in the company and at the supplier as well as costs of packaging and delivery

  → increase with the number of orders

- **Storage costs of the inputs**

  Costs for storage and shrinkage as well as opportunity costs of the tied capital

  → increase with increasing order quantity per order

Optimale Order Quantity

- **The optimal order quantity can be calculated by**

$$q^* = \sqrt{\frac{200 K_f x_B}{k(k_C + k_S + i)}}$$

K_f fix costs per order
x_B quantity needed per year
k price per unit of the ordered good
k_C annual storage costs for a unit as percentage of unit price
k_S annual shrinkage rate of stored units
i opportunity interest rate of the tied capital in percent

- **The optimal number of orders per year is**

$$m^* = \frac{x_B}{q^*}$$

ABC-Analysis

- **The aim of the ABC analysis is to determine the input factors on which the procurement department should concentrate for optimization**
- **Division of the input factors into A, B and C goods**
- **A-Goods: value share approx. 80%, quantity share approx. 10%**
  B-Goods: value share approx. 15%, quantity share approx. 20%
  C-Goods: value share approx. 5%, quantity share approx. 70%

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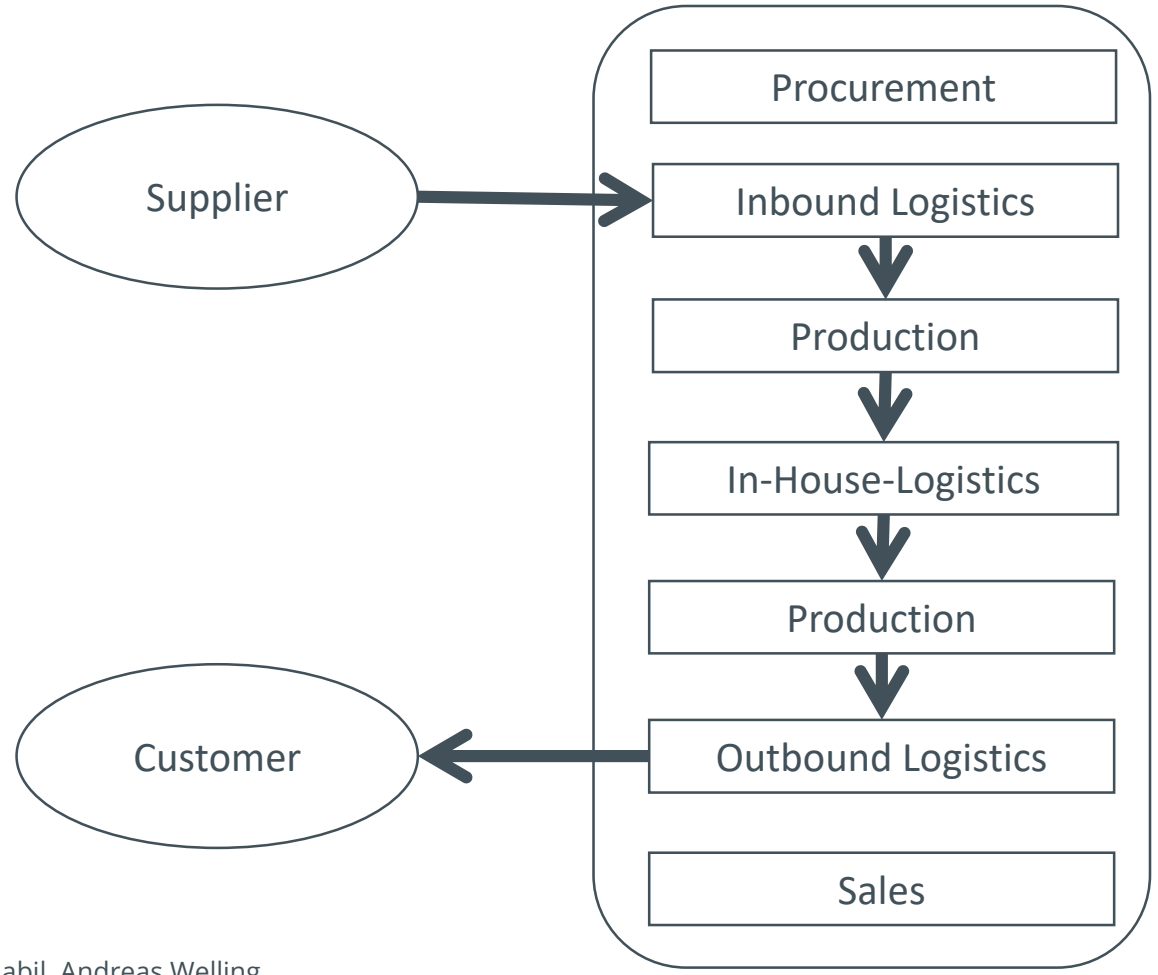
Operational performance process



Determination of demand
Selection of inputs and suppliers
Ordering process

Acception of inputs
Storage of inputs
Provicion of inputs

Tranformation of inputs in intermediate products

Storage of intermediate products
Provision of intermediate products

Transformation of intermediate products in final products (outputs)

Storage of outputs
Physical distribution

Price, Place, Promotion
Customer Acquisition
Sales process

Six tasks of logistics (6r-rule)

- **Right product**
- **Right time**
- **Right place**
- **Right quantity**
- **Right quality**
- **Right costs**

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Storage types

- **Storage type depends on the respective type of good:**

  - Bulk goods: Silos, heaps

  - Liquids, Gas: Tanks

  - General cargo: High-bay warehouse, automatic small parts warehouse

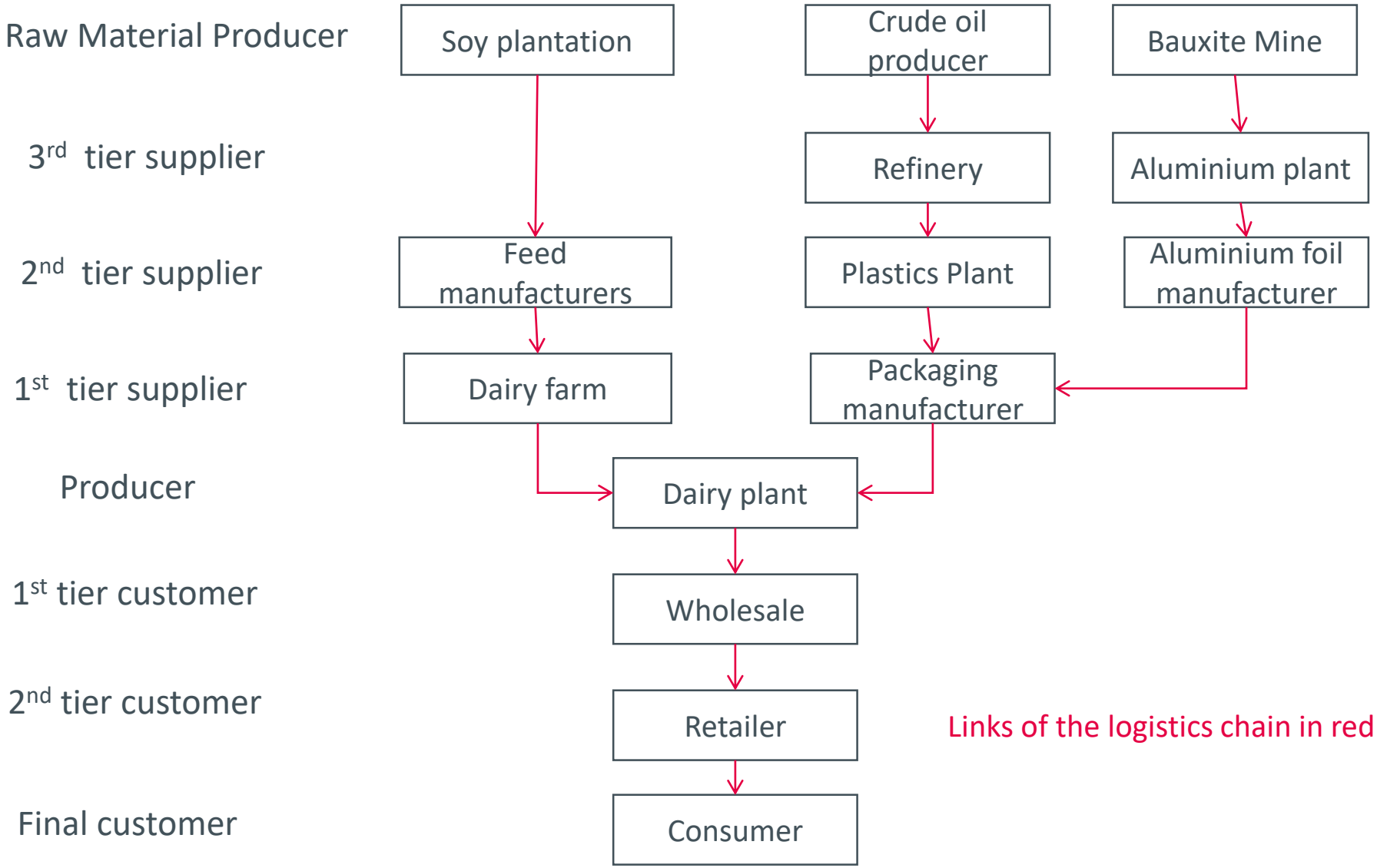
- **General cargo are individual items, systematic storage is required (often with IT support)**

- **Bulk goods, liquids and gases cannot be stored mixed**

Supply Chain

- **Supply chain describes the cross-company value chain and**
  includes the producer of a good
  as well as all suppliers (1st tier supplier)
  and also the suppliers of the suppliers (2nd tier supplier)
  …
  all the way back to the raw material producers
  as well as all customers (1st tier costumer)
  and also the customers of the customers (2nd tier customer)
  …
  to the final customer
  as well as all links in the logistics chain
- **Nowadays it is no longer individual companies that compete with one another, but rather complete supply chains → supply chain management is particularly important**

Supply-Chain (Example yogurt)



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ERP Systems

- **Enterprise Ressource Planning Systems**
- **Application software to support the resource planning of the entire company**
- **Functional areas: materials management, production, finance and accounting, controlling, marketing and sales, etc.**
- **Important ERP systems: SAP, Oracle, SAGE, Infor**
- **Market share SAP in Germany > 50%**

Definition Production

- **Transformation of inputs (repetition factors) into outputs using potential factors and dispositive production factors**

Production Management

- **Strategic Production Management**

  Long-term oriented (5-10 years)

  Securing competitiveness and efficient production

- **Taktisches Produktionsmanagement**

  mid-term oriented (1-5 years)

  Choice of technologies and logistics, implementation of the strategy

- **Operatives Produktionsmanagement**

  short-term oriented (<1 year)

  Production program planning, materials management

Forms of adaptation of production

- **Temporal adjustment: production speed and number or type of machines used constant and production time variable**
- **Intensity adjustment: production time and number or type of machines used constant and production speed of the machines used variable**
- **Quantitative adjustment: production time and production speed of the machines used constant and the number or type of machines used variable**

Objectives of production

- **Cost objective: Production at the lowest possible cost**
- **Quality objective: Production in the required quality**
- **Result objective: Production of the required number of items**
- **Time objective: On-time production**
- **Environmental objective: production that is as environmentally friendly as possible**
- **→ Objectives of production are competing**

Production types

- **Individual production / series production / variety production / mass production**
- **Joint production**
- **Construction site production, workbench production, workshop production, flow production (series production, transfer line), flexible production**
- **Make-to-stock / contract & program manufacturing**

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Just-in-time-Production

- **Developed in the Japanese automotive industry**
- **No need for storage, inputs must be delivered to the right place at exactly the right time**
- **Objective: reducing costs, increasing efficiency**
- **Logistics-oriented and decentralized production**
- **Highly complex, risk of production downtime**

Strategic Management

Definition

Control and coordination of the long-term evolution of the company and its task environments. This control and coordination takes place via a conceptual overall view of corporate policy, which itself remains subject to constant critical review and, if necessary, adjustment.“

Source: Kirsch, W. (1984). Wissenschaftliche Unternehmensführung oder Freiheit vor der Wissenschaft, S.507. (translated)

Video

Ansoff matrix

	Existing products	**New products**
Existing markets	Market penetration strategy	Product development strategy
New markets	Market development strategy	Diversification

Video

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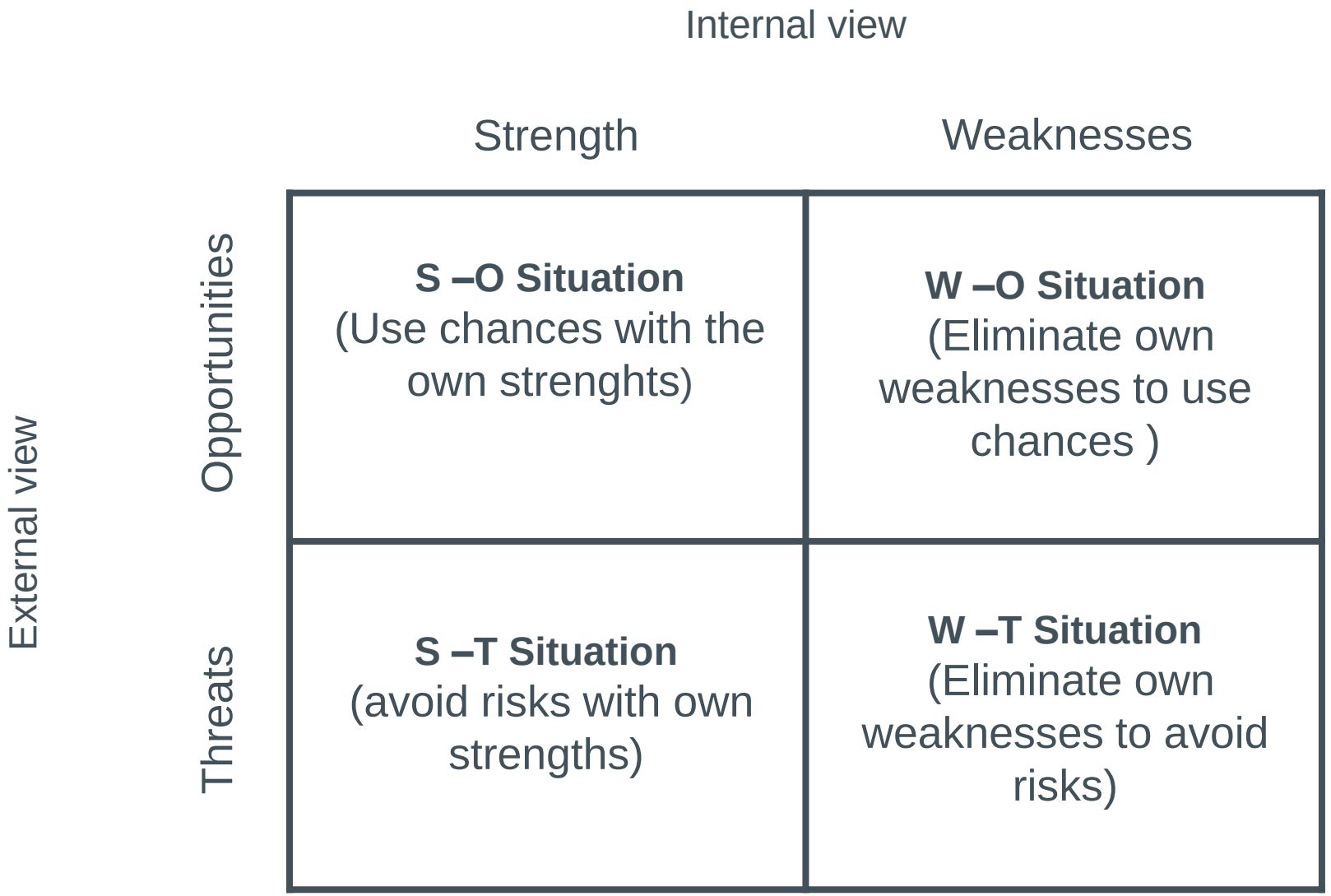
SWOT Analysis



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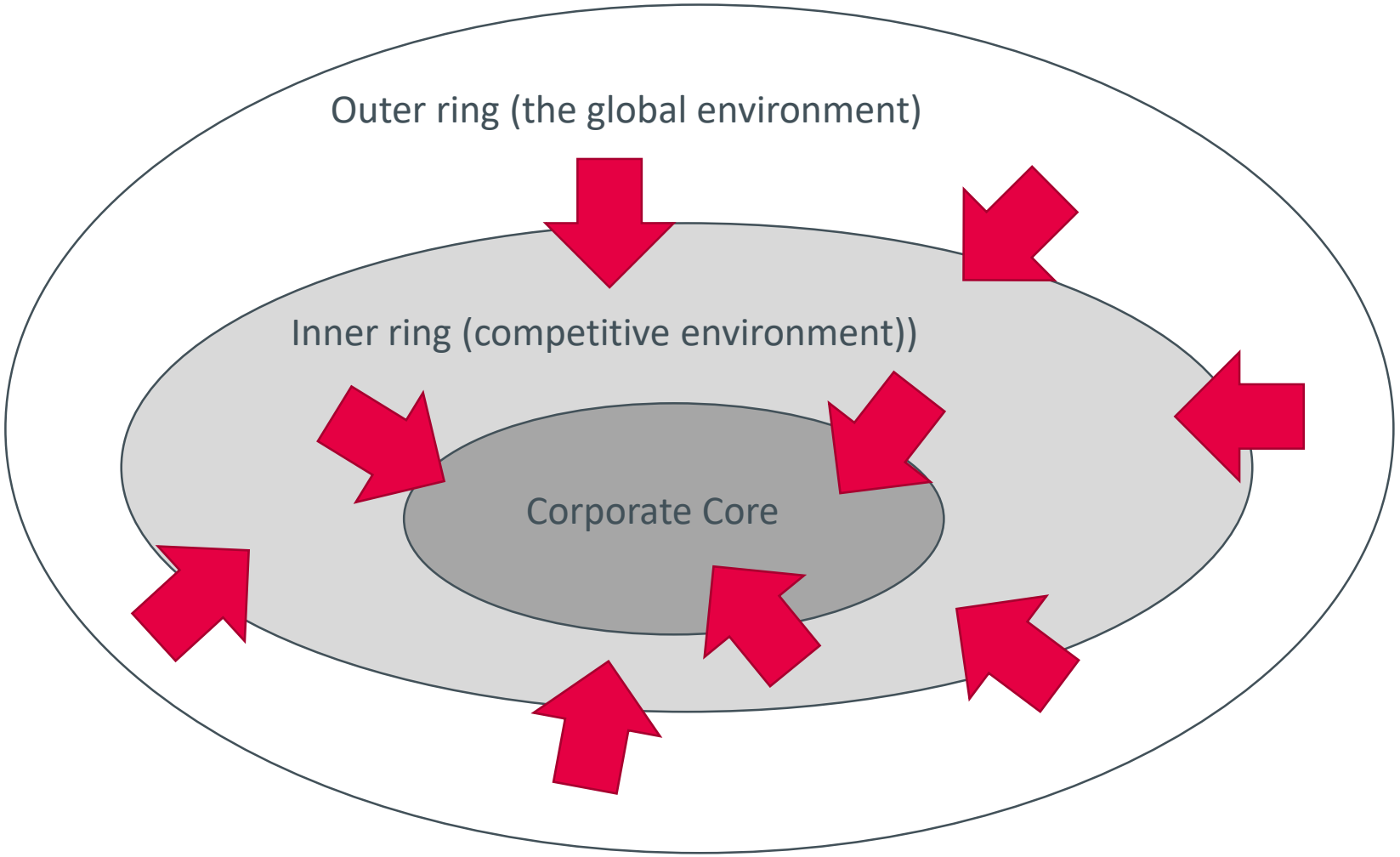
SWOT Analysis

- **Strengths: e.g. special skills, market positions or successful products**
- **Weaknesses: inefficient processes, dependencies or lack of know-how**
- **Opportunities: e.g. new sales markets, supply bottlenecks of a competitor or new technologies**
- **Risks: new competitors, political developments or declining demand**

Macroenvironmental Analysis



Video

Flexibility of a company

- **Corporate environment and industry structure are constantly changing**

  → Uncertainty

- **Flexibility refers to the ability of a company to respond to changing circumstances**
- **Operational flexibility: Changeability of the production program (production quantity, inputs, outputs, quality)**
- **Strategic flexibility: Changeability of corporate strategy (other/new products, other/new markets, possible corporate growth)**

  → Corporate strategies must not be rigid

Video

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Human Resources Management

Tasks HR management

Human Resources Management	
Personnel planning	Personnel management and motivation
Quantitative and qualitative adjustment of personnel capacity to operational requirements	Increasing employee motivation through monetary and non-monetary incentives while observing the economic principle
→ Availability	→Efficiency

According to: Einführung in die Allgemeine Betriebswirtschaftslehre, Wöhe, 2013, S.123 (translated)

Personnel planning

- **Personnel requirements planning: How many employees with which qualifications are needed when for which work?**
- **Personnel procurement planning: Through which procurement alternatives can an existing capacity gap be closed?**
- **Personnel reduction planning: By which measures can a personnel overcapacity be reduced?**
- **Personnel deployment planning: How many and which employees are to be deployed when and where for which tasks?**
- **Personnel development planning: Through which measures can employee qualifications be increased in the medium and long term?**

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Recruitment Planning

- **One of the most important human resources sub-functions**
- **Good personnel → competitive advantage**
- **Tasks**
  - **Procurement measures (internal or external)**
  - **Recruitment advertising**
  - **Personnel selection**

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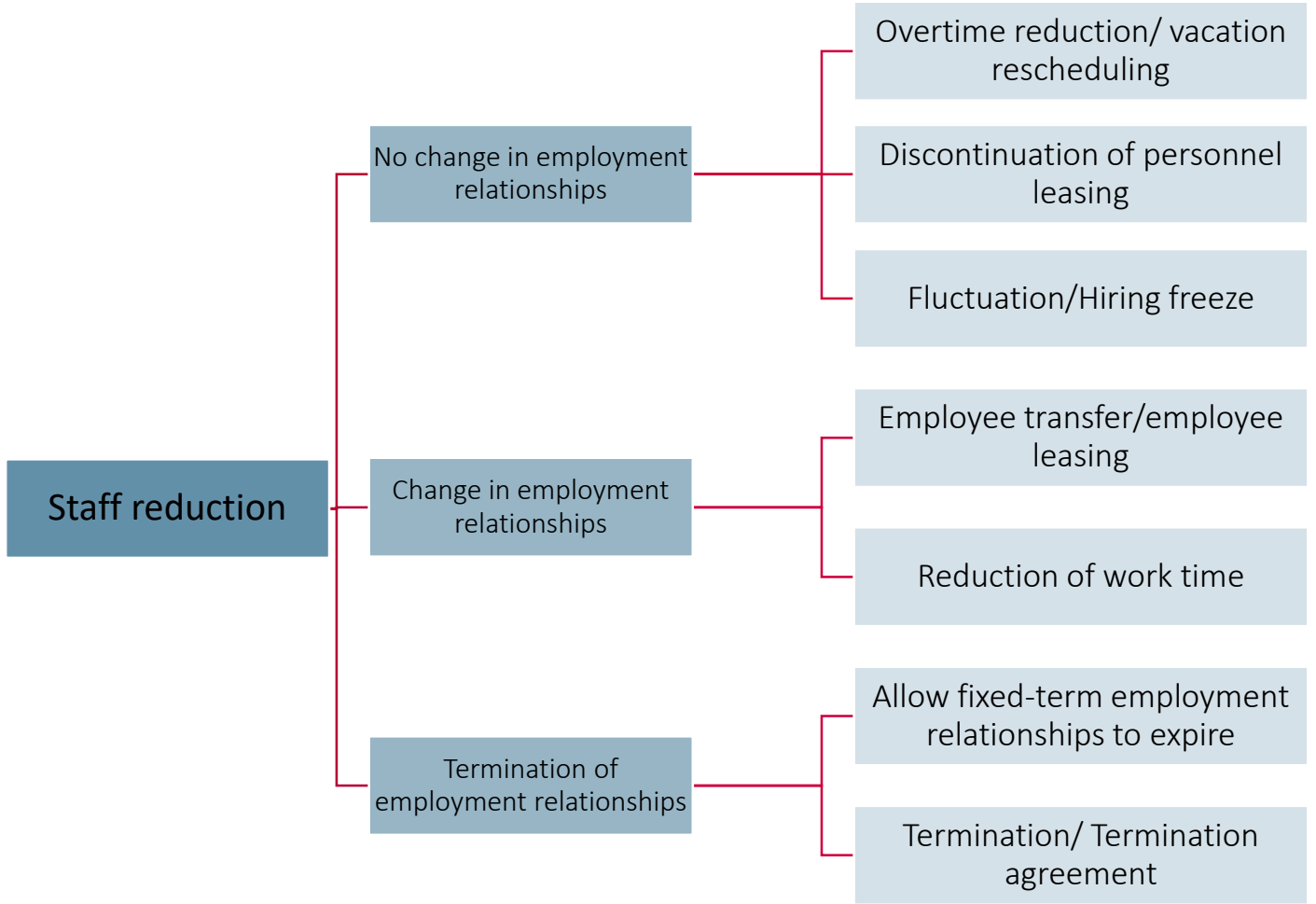
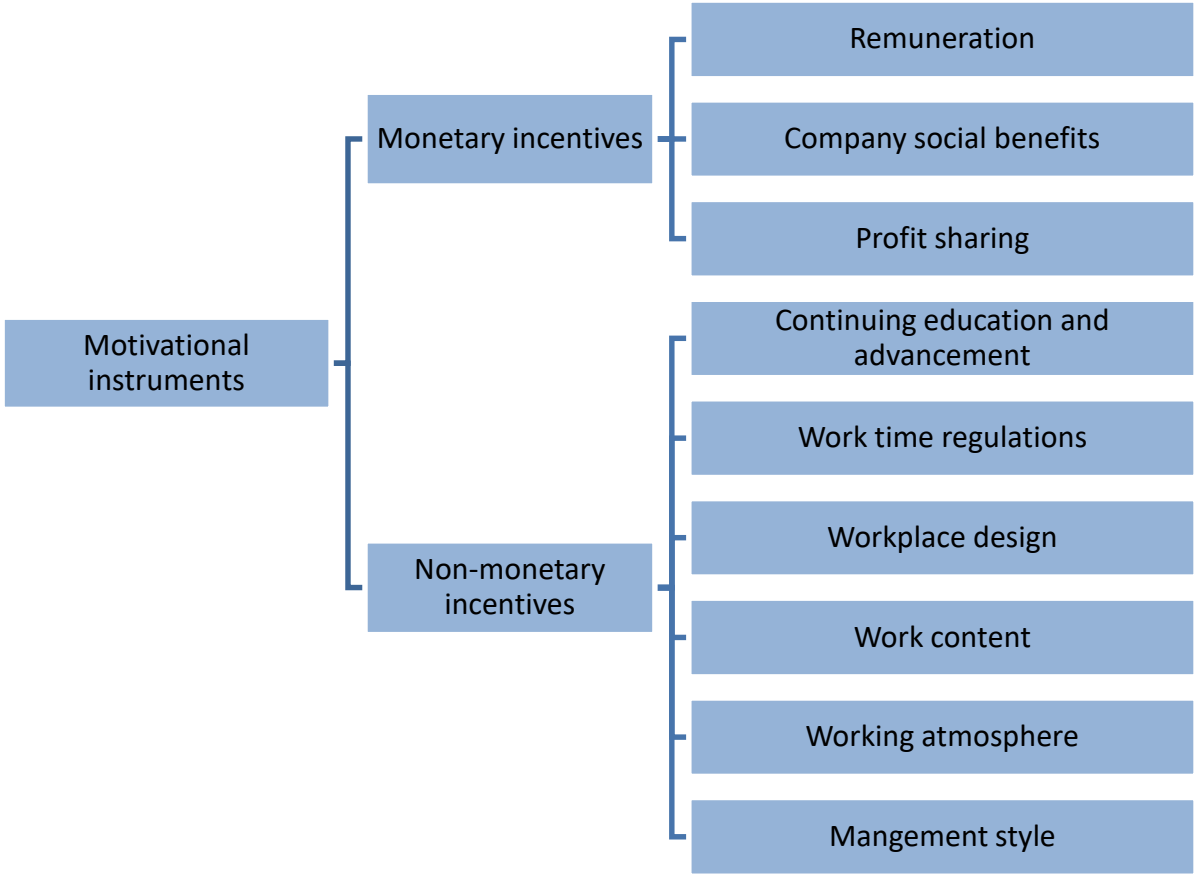
Possibilities of staff reduction



Motivational instruments

- **Increasing the company's success by increasing job satisfaction and by improving individual performance readiness**



Quelle: Einführung in die Allgemeine Betriebswirtschaftslehre, Wöhe, 2013, S.139)

Video

Management style of superiors

- **Bureaucratic leadership style vs. charismatic leadership style**
- **Cooperative Leadership Style vs. Autocratic Leadership Style**
- **Democratic leadership style vs. authoritarian leadership style**
- **Laissez-faire (passive) leadership style vs. situational (active) leadership style**

→ There is no such thing as a "right" leadership style. The choice of leadership style depends on objective and subjective circumstances.

Video

Innovation and Technology management

Innovations

- **Innovation is a deliberate and targeted process of change towards something first, something new**
- **Innovation can be sorted into three categories**
  1. **Product Service Innovations**
  2. **Process innovation**
  3. **Concept innovations**
     - **a) Management and organizational innovations**
     - **b) Business model innovations**

Video

English subtitles available!

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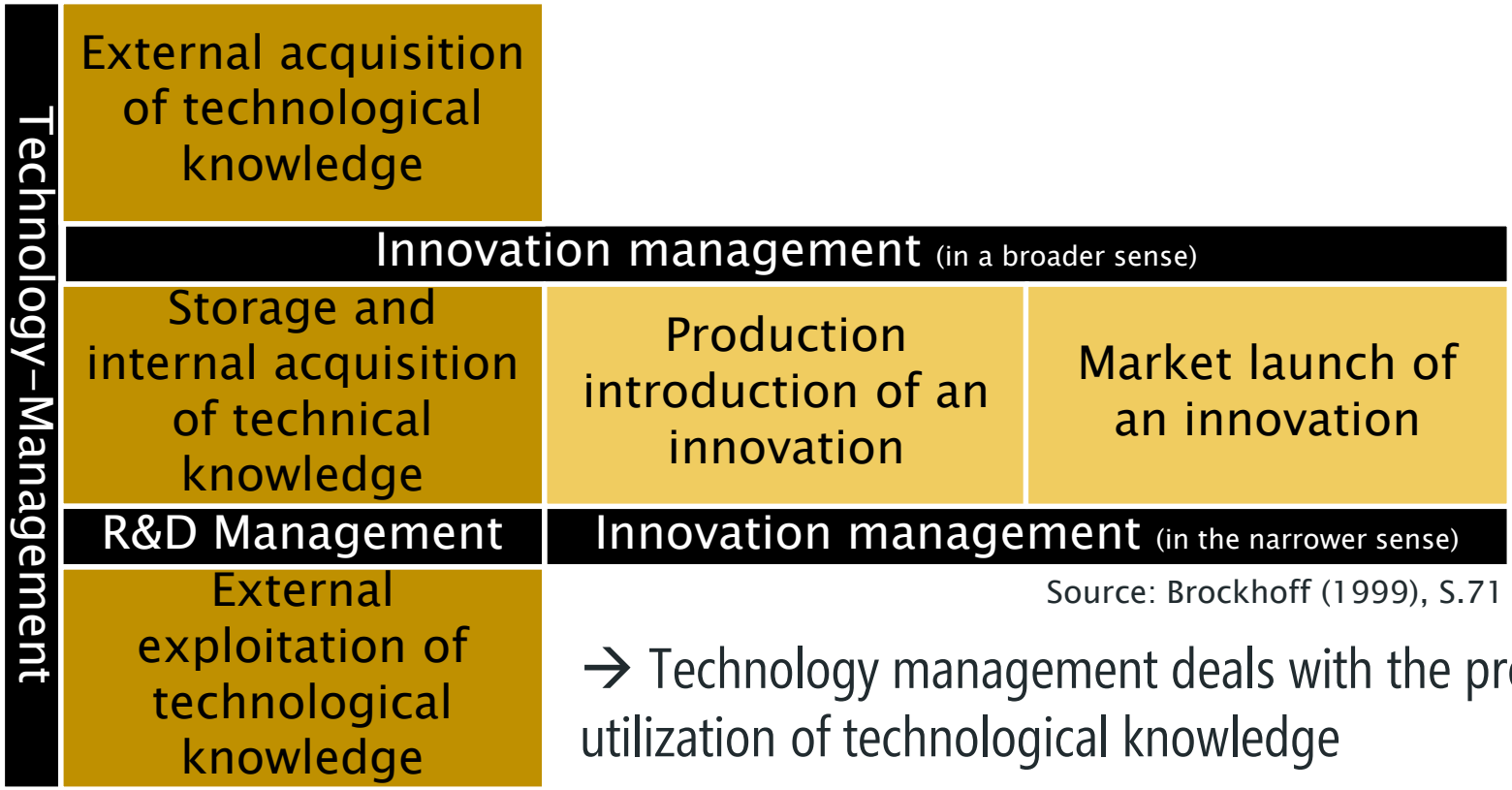
Differentiation between technology and innovation management



Source: Brockhoff (1999), S.71

→ Technology management deals with the procurement, storage and utilization of technological knowledge

Video

Tasks of technology management

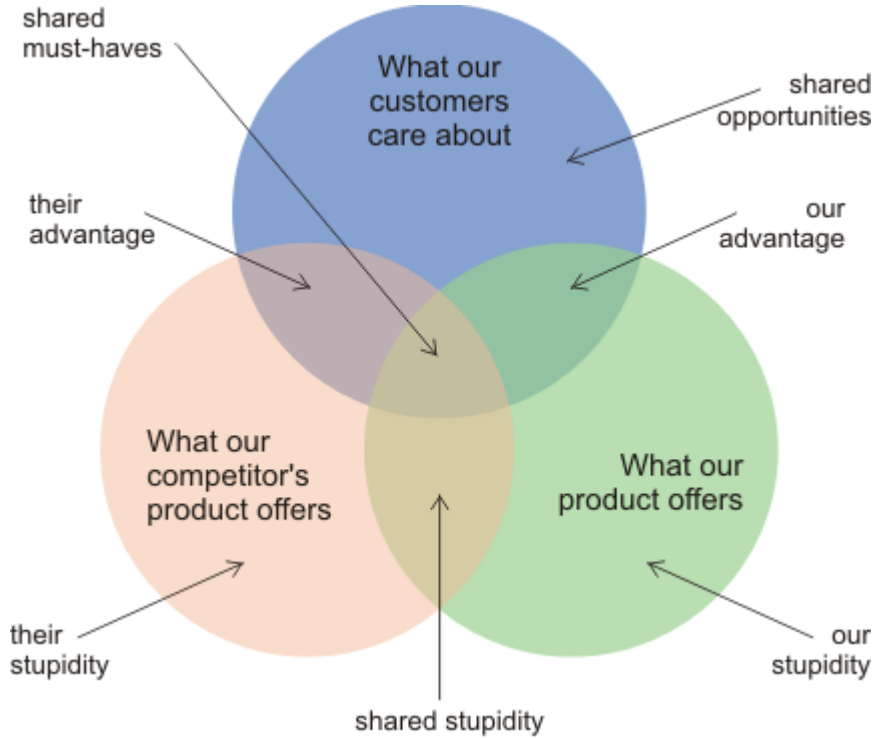
Technology Management	Operative	Strategic
External acquisition of technological knowledge	Scouting Acquisition Recruiting	Early detection Evaluation Make or Buy
Storage and internal acquisition of tech. knowledge	Research Planning Documentation Backup	Invest/Divest Roadmap Lean Development
External exploitation of technological knowledge	Licensing Sale (Consulting)	Patent strategy Marketing Platform

Source: Brockhoff (1999), Corsten et al. (2006)

Video

English subtitles available!

Innovation and Customer Value



Quelle: Zephram.de

Not every innovation is valuable for the customer:
- more functions increase product complexity
- innovations might increase product price
- more functions increase probability of product failure

→ Danger of over-engineering

→ Rely on customer feedback when deciding about new functions and innovations

Disruptions

- **Most innovations are incremental. They bring about the steady and incremental improvement of existing products, services, processes or business models.**
- **Disruptive (or radical) innovations are fundamental and create something completely new. They change business models and shake up entire industries.**
- **Disruptive technologies are technologies that often enable a variety of disruptive innovations**

Video

The Innovators Dilemma

Companies fail for many reasons. But the fact that leading companies fail because they basically do everything right sounds paradoxical. And yet the classic success factors such as customer, profit and growth orientation prove to be downright dangerous and existentially threatening in the case of disruptive innovations.

(Clayton M. Christensen – The Innovator‘s Dilemmas)

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