

## Very short summary

Human Resource Management: Entry and exit processes (e.g. Mix of work force), Growth and development (e.g. Promotion), Reward and recognition systems, How people are treated

Guidelines for managing people: Communication with employees, Distinguish people, Fairness and openness, Be constructively critical of authority, Sensitive to diversity, Understand teams, Be a change leader, Focus on learning

Marketing: "Being active on markets"

Marketing production alignment: Low cost high volume versus high volume (and hence to customer order), Mass customization gives best of both worlds (Dell), Share customer data throughout the company so throughout the chain

Marketing strategy: Customer Focus, Competitor Focus, Interfunctional coordination, Future profit organization

3 steps of marketing: segmenting (dividing in groups), targeting (evaluate and select), positioning (select develop and communicate a proposal for each segment)

Segmentators: price, product, demography (facts like age, gender etc), Service, Distribution...

Mass customization: Production for big mass (e.g. cars, not build for a specific person)

Customer value creation: Keeping customers cheaper than finding new ones, Long term customers have other benefits than sales, Employees can create value by leveraging the opportunities of existing customers

Process Improvement: Performance indicators: Efficiency (economic vs physical), Quality (product/service and process), Capacity, Delivery Time, Flexibility.

Five perspectives on improvement: Process capacity management (decrease bottlenecks), Inventory management, Quality improvement, Supply chain management, Development of capabilities

Production processes: Job shop (Production of small batches of a large number of different products eg air plane manufacturing), Batch process (Stable line of products produced in batches e.g. specialty chemicals), Assembly line (Production of discrete parts moving from workstation to

workstation at a controlled rate e.g. assembly of printed circuit boards), Continuous flow (Processing of undifferentiated materials e.g. petrol production)

Types of inventory: Raw material inventory, WIP (=Work-in-progress) inventory (Partial products: level depends on balance in assembly), Finished goods inventory (To meet future demand), MRO (=maintenance/repair/operation) inventory (Spare parts to keep the machine park running)

Why stock: Buffer stock, pipeline stock, cycle stock (to fulfil demand), Safety stock (uncertain demand), Seasonal stock (heating oil, ice cream), Speculation stock (housing, office markets, scarce resources (oil, food, metals))

Stock Bad: **Opportunity** cost of capital (interest cost), Maintenance (holding cost), Inventory loses value (obsolescence)

Stock good: Inventory hides problems such as slow processes (bottlenecks).

Service degree: % of demand that can be supplied from stock, % of orders that can be supplied from stock, % of customers whose orders can be supplied from stock, Probability of going out of stock per month, Average time between stock outs.

Inventory models for demand: Deterministic (demand is known, hence a service degree of 100% is easy. Goal: minimize cost), Probabilistic (High revenue requires high service degrees which require high inventory and therefore high cost: Task: find the right balance between cost and revenue), Dependent (demand for bicycle wheels depends on the demand for bicycles. Demand for printer cartridges depends on the (past) demand for printers), Independent (unrelated products)

Economic Order Quantity model: Order when invent. is 0, Order same quantities,  $Q^* = \sqrt{2BD/h}$  with Procurement price P, Interest rate R, Holding cost  $h = P \cdot R$ , Replenishment cost B, Annual demand volume D, Order quantity Q

$P(\text{demand} < \text{inventory}) V \cdot \text{expected excess } V/2 \cdot \text{Holding costs } 1 + P(d > i) (1-V) \cdot \text{expected shortage}$   
 $1/2(1-V) \cdot (\text{non fulfilment costs } 2)$

Material Requirements Planning & Just In Time compared: MRP works well in markets with unstable demand - JIT is better for stable demand, JIT has build in continuous improvement incentives - MRP installs bad performance, JIT is locally organized - MRP centrally, MRP is technology based - JIT relies on humans and paper cards

JIT environment: Mass production (mass customization), Smooth demand, High process quality, Close ties with suppliers

ERP: 1 system for entire enterprise, 1 database, 1 data item per real life item, Can be bought per module, Integrates functional departments, Has standard interfaces to outside world (suppliers, customers....)

Assets = liabilities + owner's equity: properties or items own by firm = money from others (e.g. debts) + money owner has put in

Debit: Increases in assets, Decreases in liabilities

Credit: other way around

Operating margin = operating cost / sales,

Profitability = net income/equity,

Leverage ratio = EBIT / interest expense,

Asset utilization = sales / asset,

Current ratio = cur assets / cur liabilities,

Quick ratio = cash + receivables / cur liabilities

Finance = Raising and investing money to create value by estimating intrinsic values (valuation analysis).

Net Present Value: - Investment +  $\text{Sum}(\text{cash flow} / (1 + \text{discount rate})^t)$

Strategy: Defining and developing competitive advantage (Chapter title - you may view this as the definition!), A strategy defines what value is delivered to customers, and how a competitive position can be attained (and maintained) where this delivery is profitable, concerned with the creation of a unique and valuable proposition, involving a different set of activities (Porter), A strategy is making trade offs in competing. The essence of a strategy is deciding what not to do (Porter), Creating a fit among a company's activities (Porter)

Levels of strategy: Corporate strategy (customer focus, competitive focus, remember the marketing orientation): defines values, financial and non financial goals, identifies key resources and capabilities, Competitive strategy: how a firm competes in a specific industry, Functional strategy: marketing strategy, operations strategy, research strategy

7 strategy steps: Industry analysis (profitability), Positioning, Competitor analysis, Current strategy assessment, Option generation, Assessment of capabilities, Choosing or improving of a strategy

Industry analysis in 5 forces: Buyer power, Supplier power, Rivalry, Threat of substitutes, Threat of new entry

Positioning: Cost leadership (being cheap e.g. ALDI), Differentiation (gadgets, Rolex), focus (focus on small segment)

Good Strategy: built on value and purpose, requires understanding competitive advantage, is consistent, doesn't change quickly over time, is committed yet flexible