

Business Models

Prof. Dr. Dirk Riehle

Friedrich-Alexander University Erlangen-Nürnberg

COSS B04

Licensed under CC BY 4.0 International

Summary

1. Business model (definition)
2. Business model canvas
3. Value proposition
4. Value capture
5. Value creation
6. Business model types

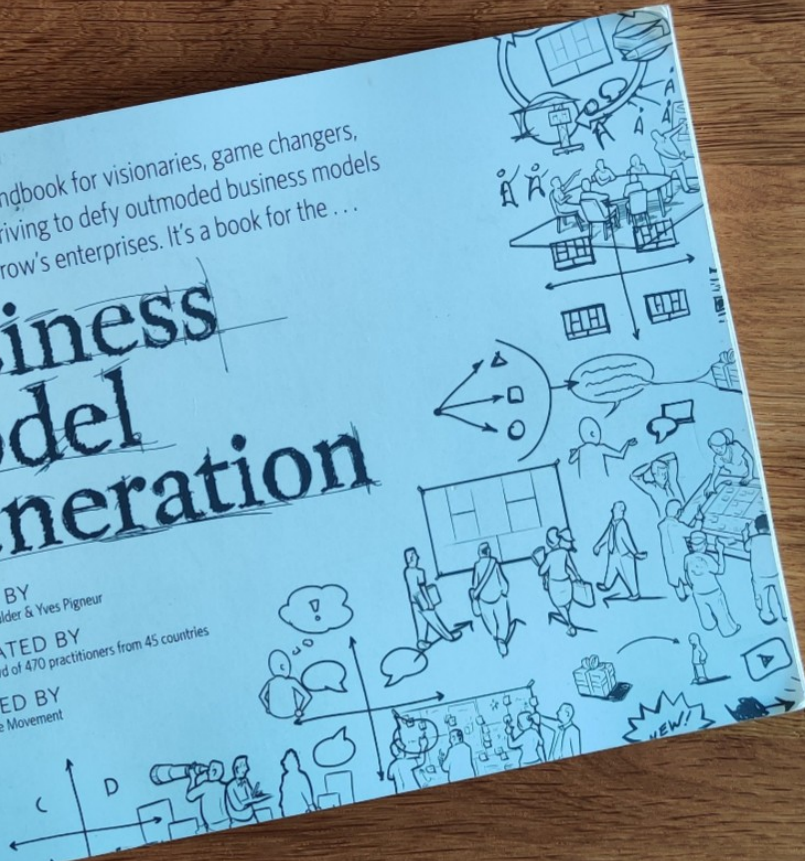
You're holding a handbook for visionaries, game changers,
and challengers striving to defy outmoded business models
and design tomorrow's enterprises. It's a book for the ...

Business Model Generation

WRITTEN BY
Alexander Osterwalder & Yves Pigneur

CO-CREATED BY
An amazing crowd of 470 practitioners from 45 countries

DESIGNED BY
Alan Smith, The Movement



1. What is a Business Model?

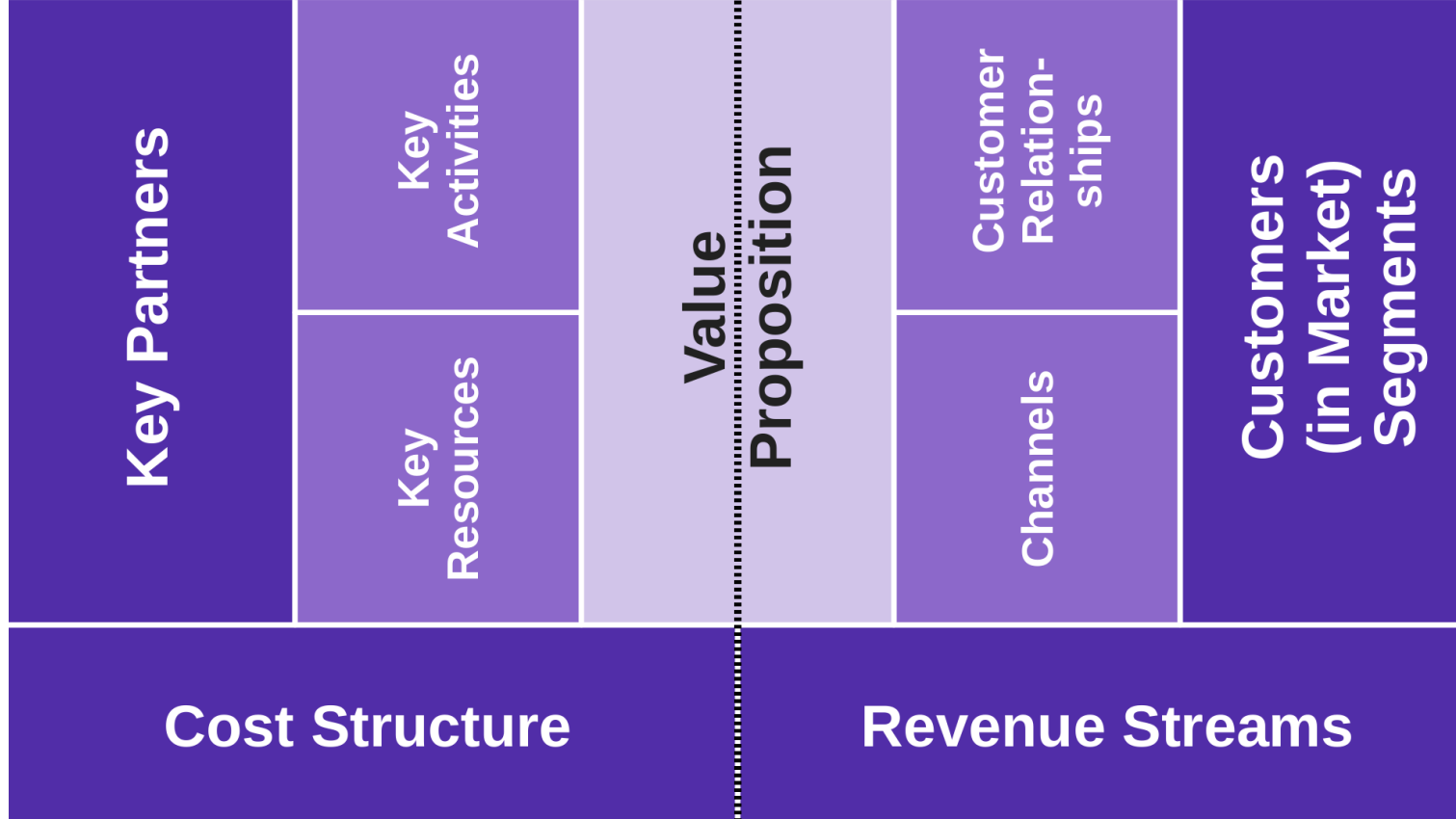
Business Model (Definition)

- A business model
 - A model (description) of how an organization creates, delivers, and captures value
- A model
 - Is a description of components and how they interact for a purpose
- A model gets instantiated a.k.a. executed

2. The Business Model Canvas

The Business Model Canvas (BMC)

Value creation



Value capture

Components (of a Business Model)

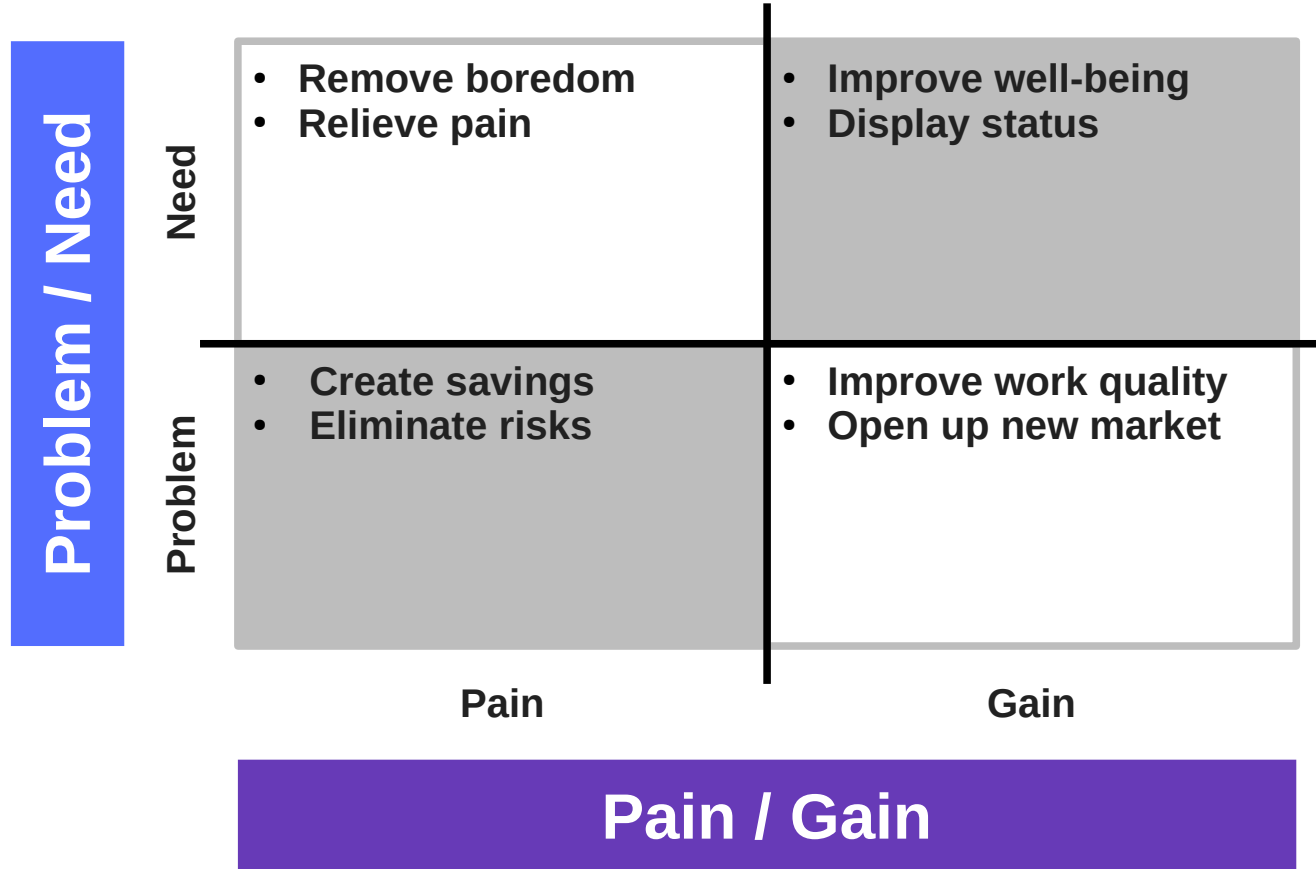
- Value proposition
- Value capture
 - Market segments
 - Channels
 - Customer relationships
 - Revenue streams
- Value creation
 - Key partners
 - Key activities
 - Key resources
 - Cost structure

3. Value Proposition

1. Value Proposition

- The value proposition
 - Is the value to customers (so they buy)
 - Creating a gain or relieving a pain
 - Solving a problem or fulfilling a need
 - Turned into a product or service
 - Cast as a minimum viable product
 - Consisting of distinct features
- The value to customers can be predominantly
 - Quantitative (speed, price)
 - Qualitative (convenience, novelty)

Examples of Creating a Gain or Relieving a Pain



Quantifying the Customer Gain or Pain

- By intensity or relevance of incidents
- By frequency of incidence

4. Value Capture

Value Capture

- Value capture (also: appropriation)
 - Is the comprehensive process of
 - Deriving a **revenue stream**
 - By selling to **customers in a market segment**
 - A product or service built on a **value proposition**
 - Through a **channel** that reaches the segment
 - Using **customer relationships**
 - Can vary by market segment
 - Creates a unique combination then

2. Customers (in Market) Segments

- A market segment
 - Is a cohesive cluster of similar customers
- In multi-sided markets
 - You have multiple types of customers, split further into segments
- All market segments together constitute the total market

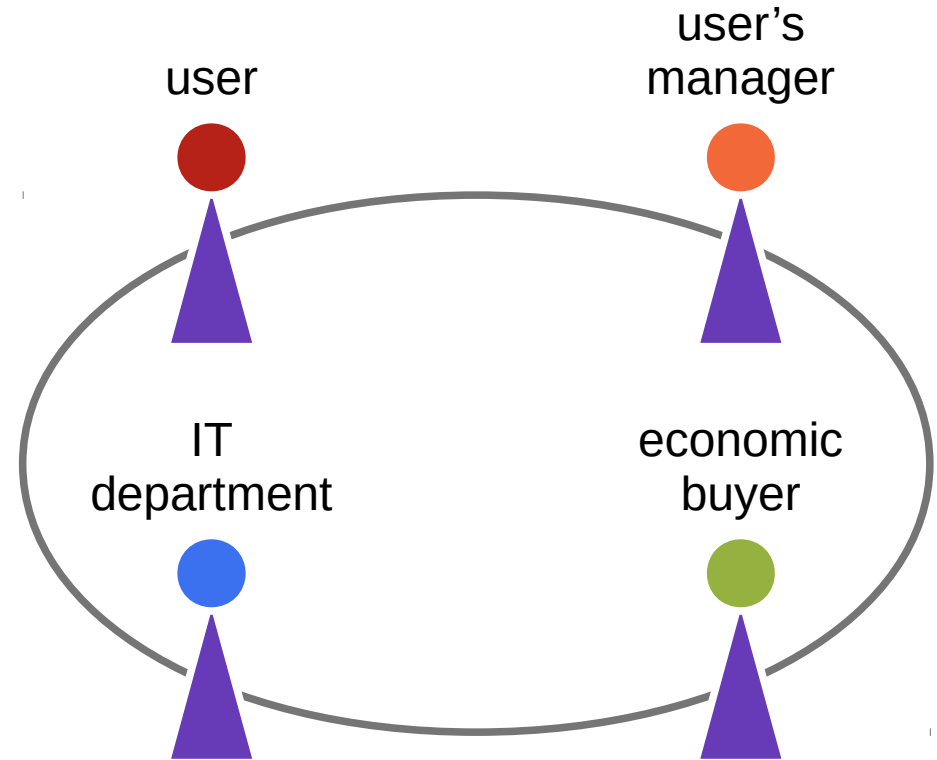
Value Proposition Matches Market Segment

- Value proposition varies by segment
 - Specific value proposition defines the profile that marks the segment
- Market segment profiles can vary significantly
 - Various characteristic properties



Personas

- A persona
 - Is an archetypal [1] person
 - Within an archetypal customer
 - Within a market segment
- At any customer
 - There are likely to be several personas
 - All with different powers re: purchase
 - And different profiles



[1] Archetypal = representing a cluster of similar people

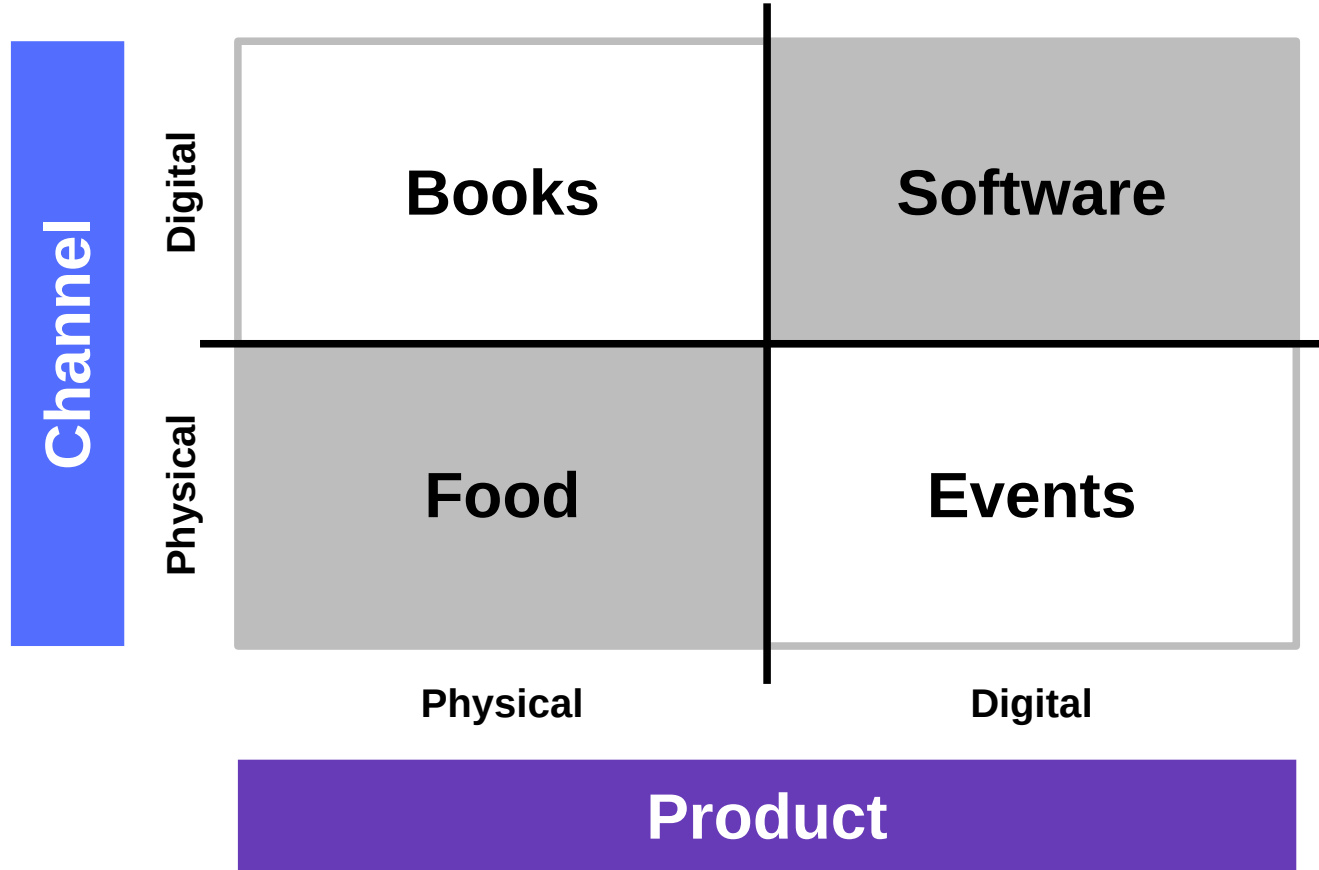
Example Market Structure Breakdown

Dimension	Example
Markets	Cars; beanie babies; ...
Customer types	Car buyers, car sellers; beanie baby collectors; ...
Market segments	Truck buyers/sellers; minivan buyers/sellers; sports car buyers/sellers; ...
Personas	Truck-buyer-user, truck-buyer-economic-buyer, truck-buyer-maintainer, ...

3. Channels

- A channel
 - Is a well-defined process (conduit) of reaching a market segment
 - Can be physical or digital
- Channels are used to
 - Talk to customers (communication channels)
 - Sell to customers (sales channels)
 - Deliver to customers (distribution channels)

Physical vs. Digital



Examples of Software Distribution Channels

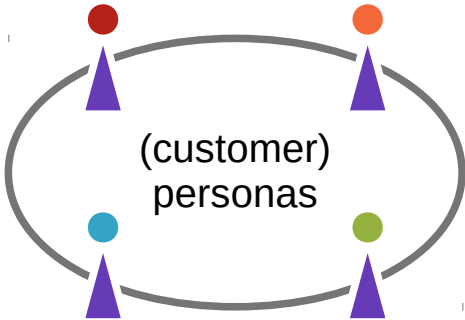
- Digital
 - Own web store
 - Platform app store
 - Digital retailers
- Physical
 - Book stores
 - Electronic stores
 - System integrators

Direct vs. Indirect Channel Sales

- In a direct channel sale
 - Your company sells directly to the customer
 - You make maximum profit
- In an indirect channel sale
 - Your company sells through a reseller
 - Your profit drops by the cut intermediaries are taking
 - Some of your SG&A costs drop because selling got simpler

4. Customer Relationships

- As a business, you need to understand how to
 - **Get**
 - **Keep**, and
 - **Grow** your customer base
- For this, you use personas (see market segment discussion)



Customer Acquisition (Getting Customers)

- Marketing primes the sales funnel
 - Tries to create demand
 - Advertising
 - Trade shows
 - Trade magazines
 - Email, webinars
 - Output: Qualified leads
- Sales takes over qualified leads
 - Consumer
 - Low-touch sales
 - Web store
 - Enterprise
 - High-touch sales
 - Evaluation
 - Sale
 - Output: Sale + customer



Customer Acquisition Cost (CAC)

- Each step in the sales funnel
 - Has a cost associated with every potential customer entering it
 - Reduces the number of potential customers moving forward
- Customer acquisition cost
 - Is the accumulated cost normalized for one realized customer
 - Is a key metric (cost) to be matched against revenue

Example CAC for Enterprise Software Product

	Cost per lead	Survival rate	No customers	Total stage cost
Trade show lead	100 €	100 %	10	1.000 €
Evaluation	5.000 €	20 %	2	10.000 €
Sale	2.000 €	50 %	1	2.000 €
Customer acquisition cost =				13.000 €

Customer Retention (Keeping Customers)

- Retaining existing customers is 5-10 times cheaper than acquiring new ones
- Techniques for retaining customers
 - Foremost, keep delivering a great product
 - Then create loyalty program, added benefits
 - Increase switching costs to lock-in customers

Customer Attrition (Churn)

- Customer churn
 - Is the percentage of customers you loose in a given time period

Churn	Period					
	Start	1 month	6 month	1 year	2 years	5 years
20 %	100	80	26	7	0	0
10 %	100	90	53	28	8	0
5 %	100	95	74	54	29	5
1 %	100	99	94	89	79	55

- Customer lifetime = $1 / \text{churn}$
 - For example, a 1% churn rate = 100 months of customer lifetime

Customer Growth

- Growing your customer base is cheaper than acquiring new customers
- Techniques for growing your customer base
 - Up-sell your customers
 - Cross-sell them
 - Get referrals

Customer Lifetime Value (CLV)

- The lifetime value of a customer is
 - The total profits from the customer over time in today's currency
- Steps to calculate (the average) CLV
 - Determine customer lifetime (from customer churn)
 - Determine customer margin from revenues and variable costs
 - Discount period profits by how far out the revenues are
- Customer costs include
 - Relationship costs (acquisition, retention, growth)
 - Variable product or service provision costs

Heuristics for the Customer Lifetime Value

- CLV should be \gg than CAC
 - CAC dominates most costs
- Rules of thumb vary by domain

5. Revenue Streams

- Revenue (income)
 - A payment received from a customer
- A revenue source
 - Is a synonym for customer, sometimes also the product
- A revenue stream
 - Is the stream of revenues received from a source over time
- An aggregate revenue stream
 - Is the aggregation of several revenue streams from different sources
- The total revenue stream
 - Is the aggregation of all revenue streams
- Business intelligence lets you analyze your revenue streams

Pricing

- The price of a unit of product or service
 - Is the money charged to the customer for that unit of product or service
 - Is best set equal to the value the potential customer sees in it
 - The value of a unit of product or service varies by time
 - This maximizes revenues by customer
- Price discrimination
 - Is the process of setting prices specific to a customer
 - Then, you can try to capture maximum value
- If you can't price discriminate, you price
 - By segment
 - By channel
- Always price based on value, never on costs

How Revenue Streams are Structured

- Individual sale (revenue)
 - Is **price** x **no units** of product or service sold
- Revenues can be aggregated resp. broken down in many ways
 - By market structure: Markets → market segments → customers
 - By classic (physical) break-down: location, demographics
 - By channel: Web store, retailer, etc.
- Prices (incl. volume discounts) may vary by breakdown

5. Value Creation

Value Creation

- Value creation
 - Is the comprehensive process of
 - Creating your product or service for customers and evolving it
 - Also: production and operations

6. Key Partners

- A key partner is another organization you strike a deal with
 - To operate your own organization or
 - To produce your product or service

Types of Partnerships

- Suppliers
 - To build your product from components
 - Example: Apple + Foxconn
- Strategic alliances
 - To build a whole product
 - Example: SAP and its consulting partners
- Joint business development
 - To jointly promote complementary products
 - Example: Intel (Inside) and computer manufacturers
- Strategic investors
 - To raise funds and gain access to important resources
 - Example: Daimler investment in Tesla

Success Factors and Failure Reasons of Partnerships

- Success factors
 - Understand your core value proposition
 - Focus on your competitive differentiation
- Failure reasons
 - Not understanding each other's motivation
 - Not seeing eye to eye (small vs. large co.)

7. Key Resources

- A key resource
 - Is an asset (resource) needed to operate your business
 - Is therefore a key competitive differentiator
- Resource categories (types)
 - Materials
 - **Tangible** (raw materials, production facility)
 - **Intellectual property**
 - **Capital**
 - **Labor**

Tangible Materials (Resources 1 / 4)

- Types of tangible resources
 - Raw materials
 - Input to production
 - Production facilities, e.g. machinery
 - Used to produce
- Sources of tangible resources
 - Owned or paid for

Intellectual Property (Resources 2 / 4)

- Types of intellectual property
 - Copyright
 - Patents
 - Trademarks
 - Trade secrets
 - Contracts
- Sources of intellectual property
 - Own invention
 - Built-up over time
 - University and research institutions
 - Purchased from elsewhere
 - Strategic partnerships

Capital (Resources 3 / 4)

- Types of capital
 - Financial resources
 - Operating capital
- Sources of capital
 - Friends and family
 - Bank loans
 - Venture capital
 - Leasing, factoring

Labor (Resources 4 / 4)

- Relevant aspects
 - Quality of labor (how skilled a workforce?)
 - Quantity of labor (how many?)
- Sources of labor
 - Local labor market
 - Local universities
 - Globally sourced remote work

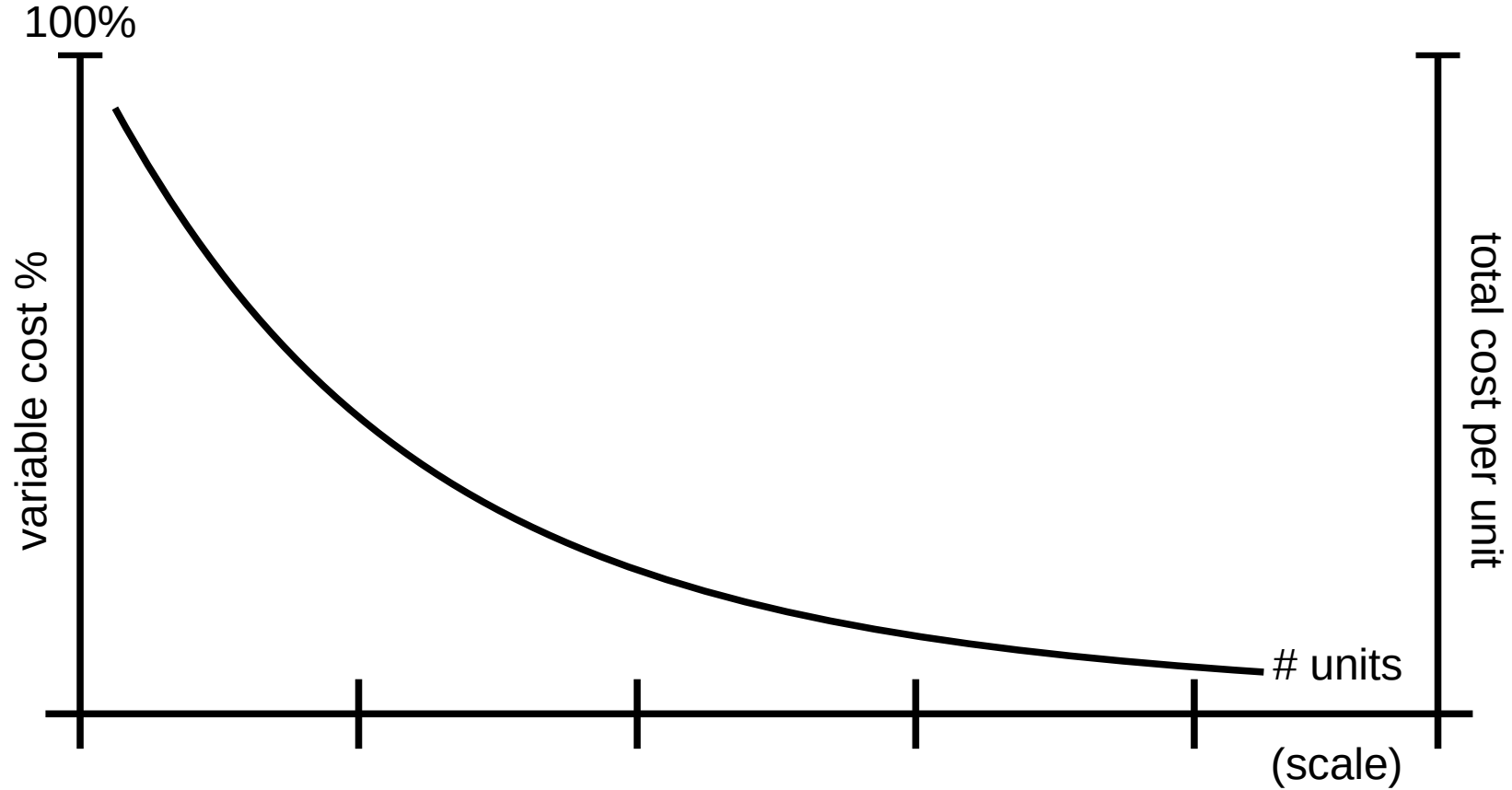
8. Key Activities

- A key activity
 - Is a core business process needed to operate the business
 - Therefore is critical to create, deliver, and maintain value proposition
 - Is a key competitive differentiator
 - Should not be outsourced
- Example key activities
 - Software development
 - Cloud operations

9. Cost Structure

- The cost structure of a business
 - Is a model of the costs (expenses) needed to operate and scale your business
- Cost categories
 - Fixed costs
 - Variable costs
- Traditionally, the cost structure is expressed in the income statement

Fixed vs. Variable Costs / Economies of Scale



Fixed / Variable Costs in Software / Software-as-a-Service

- Software / fixed costs
 - Software development
 - Initial software development
 - Continued development
- Software / variable costs
 - Customer support services
- Software-as-a-Service / fixed costs
 - Software development
 - Initial software development
 - Continued development
 - Operations
 - Cloud infrastructure (fixed costs)
 - Site reliability engineering
- Software-as-a-Service / variable costs
 - Customer support services
 - Operations
 - Compute power per customer

6. Business Model Types

Types of Business (Models) [HS99]

	Product Innovation	Customer Relationship Management	Infrastructure Management
Economics	Early market entry allows for a premium price and large market share; speed is key	High cost of customer acquisition makes it imperative to gain large shares of wallet; economies of scope are key	High fixed costs make large volumes essential to achieving low unit costs; economies of scale are key
Culture	Employee centered; coddling the creative “stars”	Highly service-oriented, “customer-first”	Cost focused; stress on standardization, predictability, efficiency
Competition	Battle for talent; low barriers to entry; many small players thrive	Battle for scope; rapid consolidation; a few big players dominate	Battle for scope; rapid consolidation; a few big players dominate

Summary

1. Business model (definition)
2. Business model canvas
3. Value proposition
4. Value creation
5. Value capture
6. Business model types

Thank you! Questions?

dirk.riehle@fau.de – <https://oss.cs.fau.de>

dirk@riehle.org – <https://dirkriehle.com> – [@dirkriehle](#)

Credits and License

- Original version
 - © 2020 Dirk Riehle, some rights reserved
 - Licensed under [Creative Commons Attribution 4.0 International License](#)
- Contributions
 - None yet