# **Business Models**

## Prof. Dr. Dirk Riehle

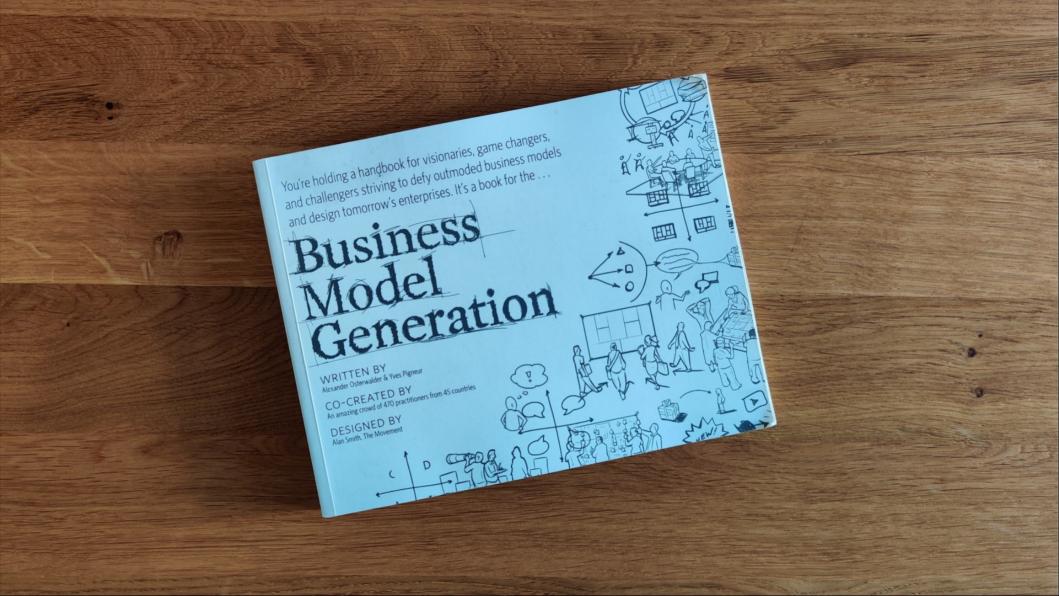
Friedrich-Alexander University Erlangen-Nürnberg

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



# 1. What is a Business Model?

#### **Business Model (Definition)**

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

# 2. The Business Model Canvas

#### The Business Model Canvas (BMC)

# Value creation

# Relation ships **Proposition** Channels **Cost Structure Revenue Streams**

#### **Components (of a Business Model)**

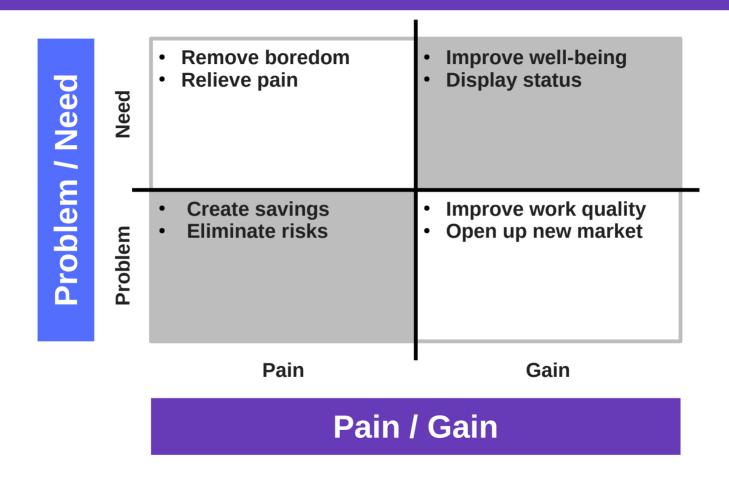
- Value proposition
- Value capture
  - Market segments
  - Channels
  - Customer relationships
  - Revenue streams
- Value creation
  - Key partners
  - Key activities
  - Key resources
  - Cost structure

# 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

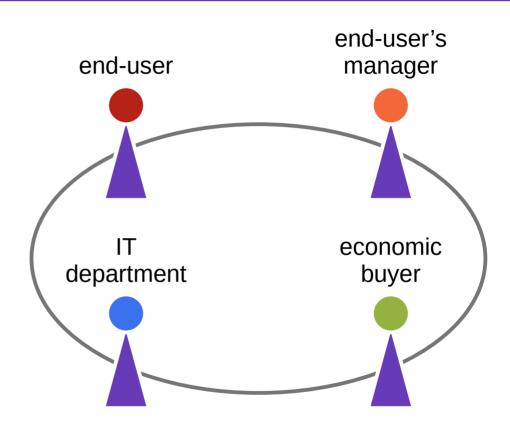
#### Value Proposition Matches Market Segment

- 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



#### **Users vs. Customers**

Customer = user (same legal entity), and economic buyer = end-user



Example: Consumer software (e.g. casual games)

Customer = user (same legal entity), but economic buyer is different from end-user



Example: Business software (e.g. CRM, SRM, ERP)





"User" i.e. "the product"



Example: Social media software (e.g. Twitter, Instagram)

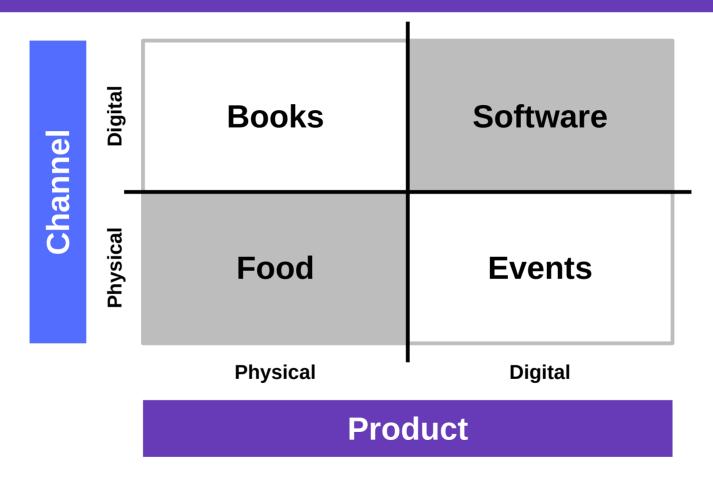
## **Example Market Structure Breakdown**

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**

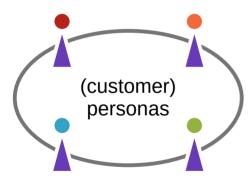
- Digital
  - Own web store
  - Platform app store
  - Digital retailers
- Physical
  - Book stores
  - Electronic stores
  - System integrators

#### **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 acquisi	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

Oleanna	Period					
Churn	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 / 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 gross profits from the customer over time in today's currency [1]
- Steps to calculate (the average) CLV
  - Determine customer lifetime (from customer churn)
  - Determine customer gross margin (from revenues and variable costs)
  - Discount period profits by how far out the gross profits are
- Customer costs are COGS ("costs of goods sold")
  - Relationship costs (acquisition, retention, growth)
  - Variable product or service provision costs

#### **Heuristics for the Customer Lifetime Value**

- CLV should be >> 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

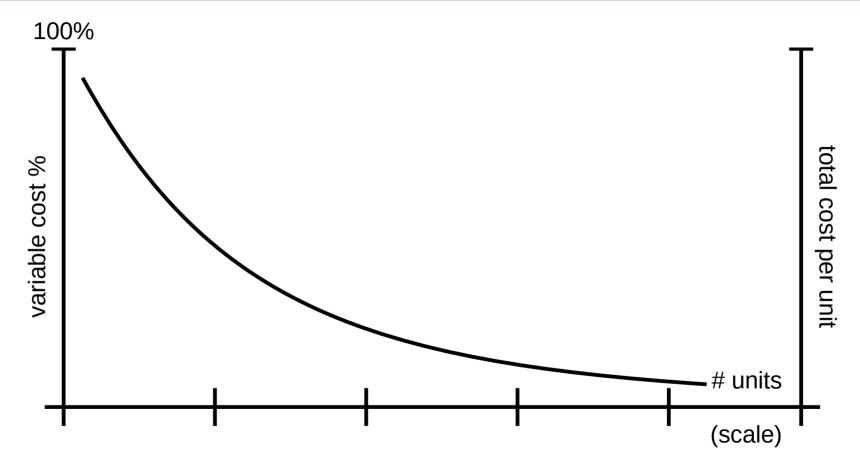
#### 8. Key Activities

- 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; codd- ling the creative "stars"	Highly service-oriented, "customer-first"	Cost focused; stress on standardization, predictability, efficiency
Competition	Battle for talent; low barri- ers 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
  - © 2021 Dirk Riehle, some rights reserved
  - Licensed under Creative Commons Attribution 4.0 International License
- Contributions
  - None yet