Business Models

Prof. Dr. Dirk Riehle

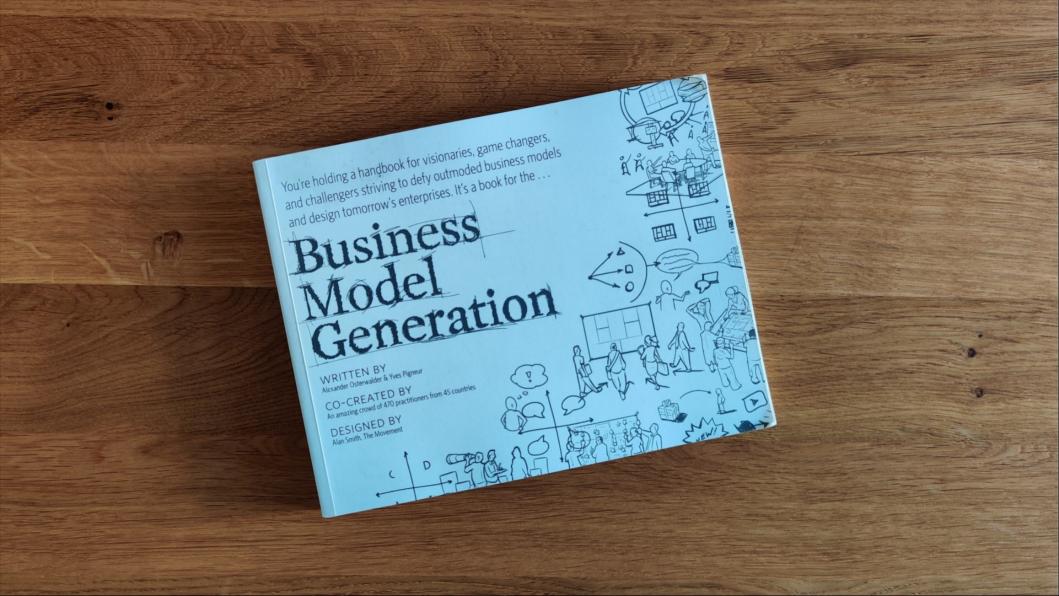
Friedrich-Alexander University Erlangen-Nürnberg

COSS B04

Licensed under CC BY 4.0 International

Summary

- 1. Business model (definition)
- 2. Business model canvas
- 3. Value proposition
- 4. Revenue generation
- 5. Operations and production
- 6. Business model types



1. What is a Business Model?

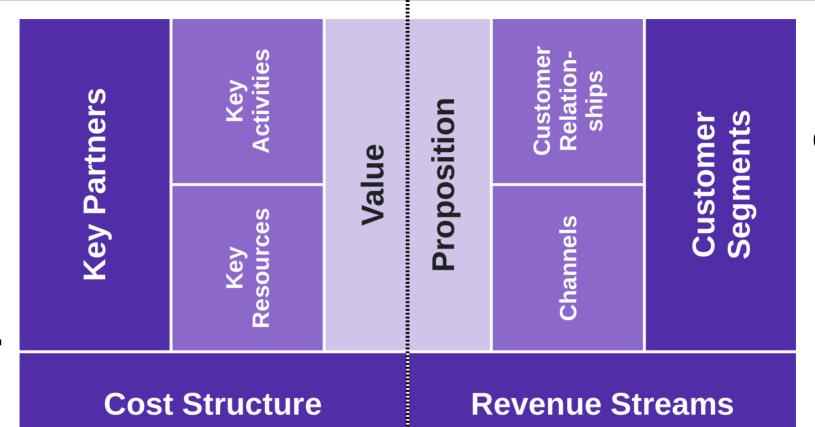
Business Model (Definition)

- A business model
 - Is a model 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)

Operations and production



Revenue generation

Components (of a Business Model)

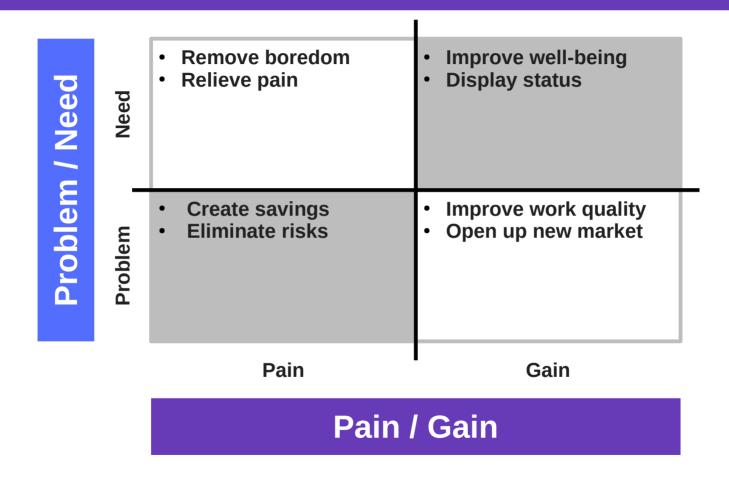
- Value proposition
- Revenue generation
 - Customer segments
 - Channels
 - Customer relationships
 - Revenue streams
- Production and operations
 - Key partners
 - Key activities
 - Key resources
 - Cost structure

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. Revenue Generation

Revenue Generation

- Revenue generation
 - Is the comprehensive process of
 - Deriving a **revenue stream**
 - By selling to a customer segment
 - A product or service built on a value proposition\
 - Through a **channel** that reaches the segment
 - Using customer relationships
 - Can vary by customer segment
 - Creates a unique combination then

(Markets and) 2. Customer Segments

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

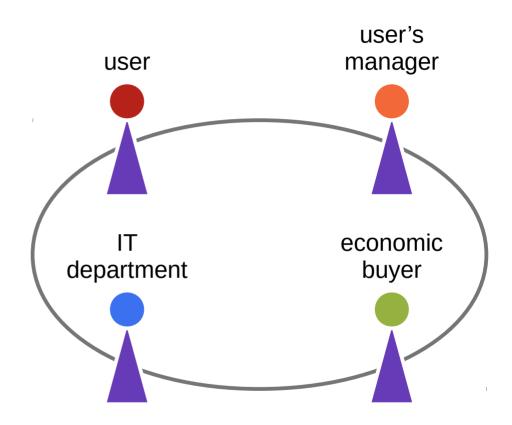
Value Proposition Matches Customer Segment

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



Personas

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



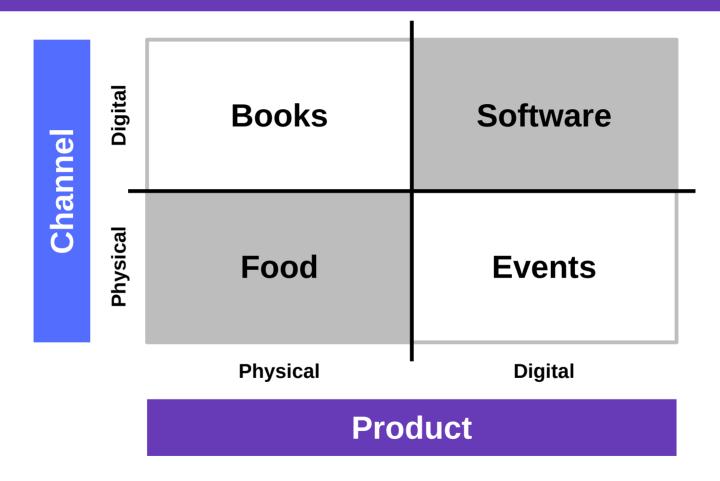
Example Market Structure Breakdown

Dimension	Example		
Markets	Cars; beanie babies;		
Customer types	Car buyers, car sellers; beanie baby collectors;		
Customer 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 customer segment
 - Can be physical or digital
- Channels are used to sell to customers

Physical vs. Digital



Examples of Software Distribution Channels

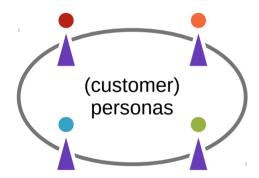
- Digital
 - Own web store
 - Platform app store
 - Digital retailers
- Physical
 - Book stores
 - Electronic stores
 - System integrators

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

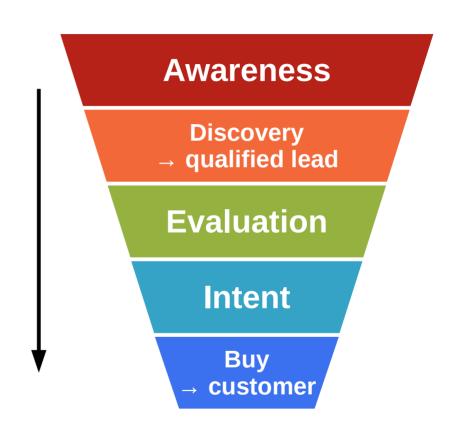
4. Customer Relationships

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

Observe	Period					
Churn Sta	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 revenue from the customer over time in today's currency
- Steps to calculate (the average) CLV
 - Determine customer lifetime (from customer churn)
 - By period, determine revenues and costs for that period
 - Discount period profits by how far out the revenues are
- Customer costs include
 - Initial customer acquisition costs
 - Subsequent retention costs
 - Possible growth 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
- 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 → customer segments → customers
 - By classic (physical) break-down: location, demographics
 - By channel: Web store, retailer, etc.
- Prices (incl. volume discounts) may vary by breakdown

5. Operations and Production

Operations and Productions

- Operations and productions
 - Is the comprehensive process of
 - Creating and delivering your product or service to customers and maintaining it
- Production is part of operations
 - Deals with creating and maintaining the value proposition

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 partnership with elsewhere

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

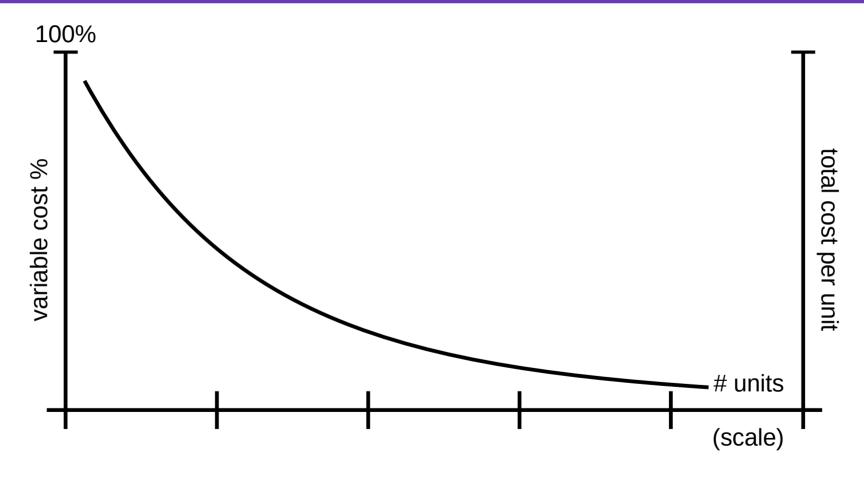
8. Key Activities

- 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; codding 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. Revenue generation
- 5. Operations and production
- 6. Business model types

Thank you! Questions?

dirk.riehle@fau.de – http://osr.cs.fau.de

dirk@riehle.org – http://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