Lecture 7

Economic Basics III: Business Models

Mobile Business I (WS 2014/15)

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Overview

- Business Models
  - Value Proposition
  - Value Creation Architecture
  - Revenue Models
    - Pricing Models
- Classical Business Models for Mobile Network Operators
- New Business Models for Mobile Network Operators

Definition

- A business model is the abstract description of a business.
- A business model consists of three main parts:
  1. Value Proposition
  2. Value Creation Architecture
  3. Revenue Model

[Based on Stähler2001]

1. A business model contains a **description of** what the **benefit** can be for customers or other partners by association with the respective business. This part of the business model is called **value proposition**.

   It deals with the question:
   What is the benefit of the business for the partner/customer?

[Based on Stähler2001]

Value Creation Architecture

2. At the same time a business model is a **value creation architecture**, viz how the benefit can be generated for the customers. This architecture contains a description of the different stages of value creation.

   It deals with the question:
   How is the output generated in which configuration?

[Based on Stähler2001]

Revenue Model

3. Besides asking for *“what”* (see 1.) and *“how”* (see 2.) a business model describes as well, which revenue the business generates from which sources. The future revenue decides on the value of the business model and the sustainability.

   It deals with the question:
   Whereby will the money be made?

[Based on Stähler2001]

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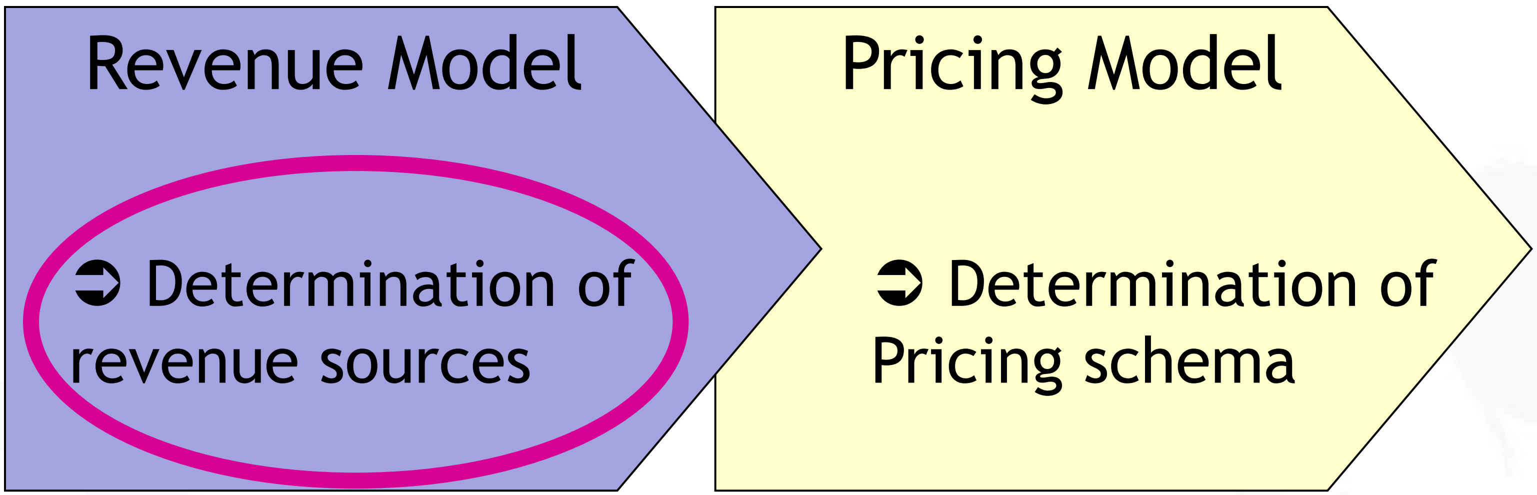
- Two-tier determination of revenue



[Clement2002]

Revenue Models

- Revenue types

	direct revenues	indirect revenues
transaction dependent	1	3
transaction independent	2	4

- Type 1: transaction dependent / direct revenues

Single transactions:

- Volume based: books, ring-tone downloads, data packages (GPRS).
- Time based: calls, communication links (HSCSD, CSD).

- Type 2: transaction independent / direct revenues
  - One-time: Installation fees
  - Recurring: Subscriptions

Revenue Models

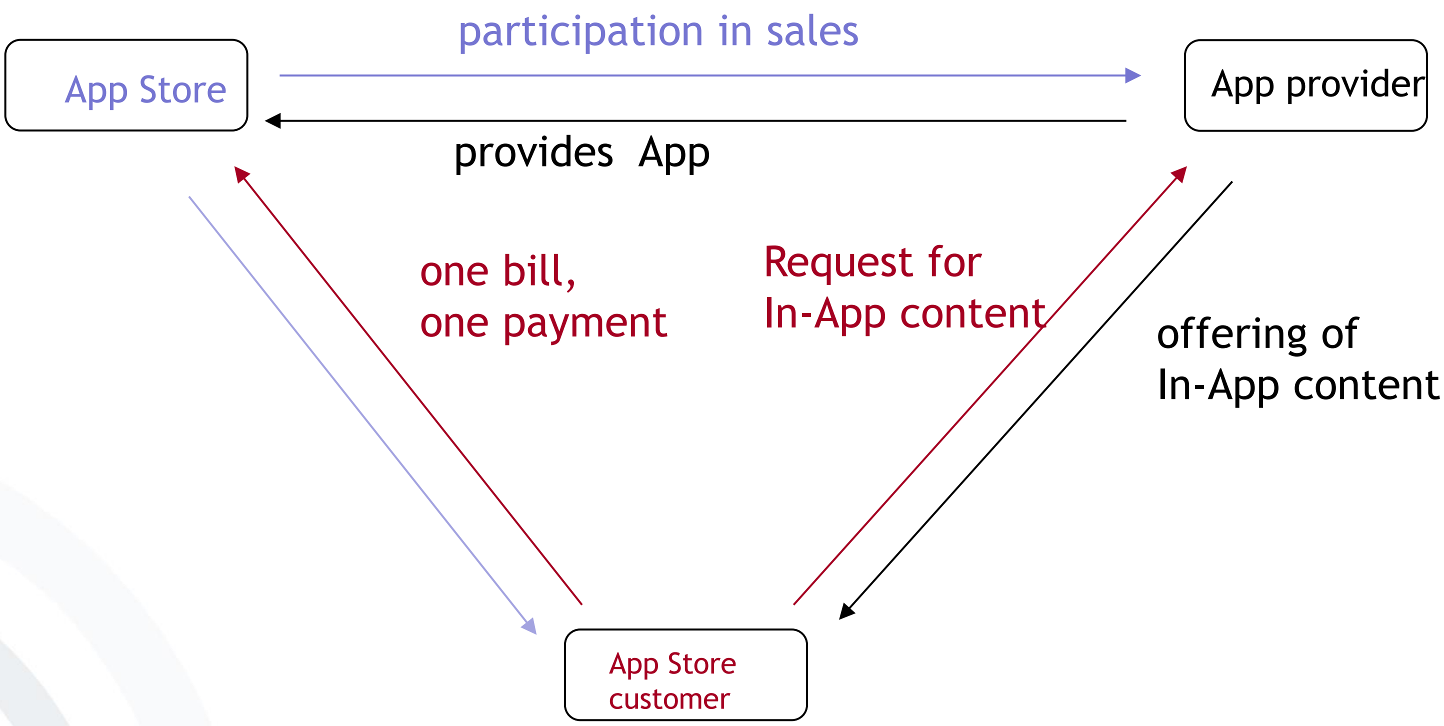
- Type 3: transaction dependent / indirect revenues
  - Reverse revenue streams – supplier specific
    - Advertising
    - Commissions (e.g. revenue participation)

Revenue Models

- Type 4: transaction independent / indirect revenues

  - Reverse revenue streams
    - Advertising
    - Commissions (e.g. listing fee)

- Example: (Apple) App Store



[Wirtz2000]

- App Provider revenue model

	direct revenues	indirect revenues
transaction dependent	In-App sales	In-App Advertising
transaction independent	In-App subscription sales	Commission from App Store

[Wirtz2000]

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Pricing Models

Revenue Model

➲ Determination of revenue sources

Pricing Model

➲ Determination of Pricing schema

[Clement2002]

Pricing Models

- M-Commerce Commonalities with E-Commerce
  - Network effects imply a penetration strategy in order to build an installed base.
  - High price transparency implies little space for pricing decisions.
  - Heterogeneity/differences in Willingness-to-Pay (WTP) encourage differential pricing.
  - Low transaction costs facilitate flexible price adjustments and variable pricing mechanisms.

[AlbersSchäfe2002]

Pricing Models

- Differences to E-Commerce
  - Cooperation of equipment/terminal manufacturers and operators allows new revenue models.
  - Very low WTP for internet services, higher WTP for mobile services.
  - Mobility, availability, localization, and identification allow new forms of product and price differentiation.
  - Services may be offered just-in-time on the mobile phone (e.g. flights) ➲ variable pricing mechanisms.

[AlbersSchäfe2002]

Pricing Models

- Different pricing between e-/m-commerce and traditional channels
- Marginal costs approach zero.
- Pricing decision target: long-term maximization of skimmed consumer surplus

Pricing Models

- Differential Pricing (Definition)
  - Offering the same product (or products with small variations) to different consumer segments at different prices.
- Requirements:
  - Segmentation / separation must be possible
  - Different WTP among segments

[Skiera1999]

Pricing Models

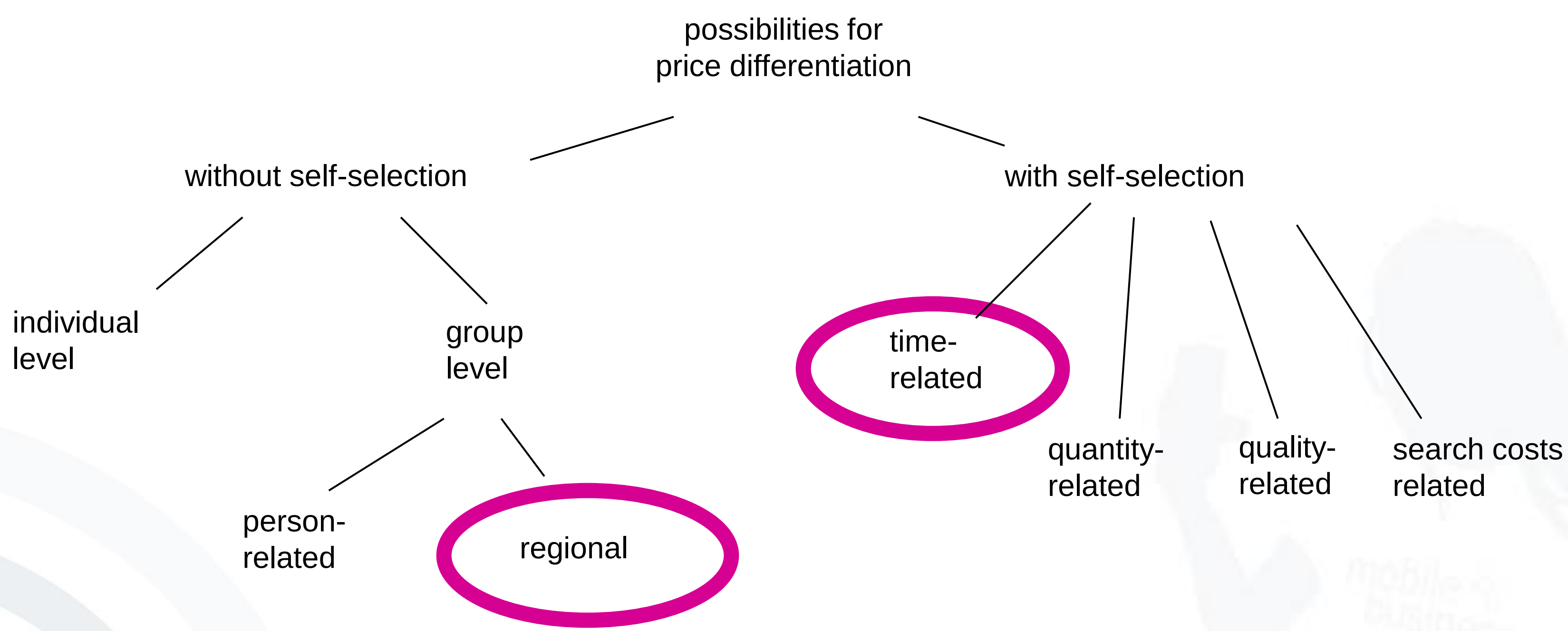
- Preconditions
  - Different WTP segments and some room for price variations
  - No arbitrage possible
    - ➲ Personalization of products
  - No stock-keeping possible
    - ➲ Timeliness does not allow stock-keeping.
  - Legality
    - ➲ Self selection is less problematic.

[Skiera1999]

Pricing Models

- Differential Pricing
  - Relevant within m-commerce owing to m-commerce specificities:
    - Location dependence / Localization (LBS)
    - Personal sphere (personal device)
    - Always-on connectivity
    - Context sensitivity

- Differential Pricing



[Skiera2001]

Pricing Models

- Differential Pricing

  - Nearly all these forms may be found in mobile commerce, however, they are not specific to mobile commerce.

  ➲ Here: Focus on the specificities

- Differential Pricing
  - Regional differentiation:
    - As yet: region as a ZIP code with all associated inaccuracies
    - Now: exact localization facilitates real location specific services (with corresponding prices).

Pricing Models

- Example for regional service

location specific advertising

Pan-Adress-Marketing 2002

Pricing Models

- Differential Pricing
  - Time-based differential pricing:
    - Example: real-time stock prices
      Higher price allows for lower delay of any reaction on market developments.
    - Example: gasoline price volatility
      Higher prices in peak times
      Mobile Apps to make it transparent

- Example

Consumer	WTP
A	8 €
B	5 €

Uniform Price: 5 €
Profit: 10 €

Differentiated Prices:
8 € for A and
5 € for B
Profit: 13 €

[Skiera1999]

Pricing Models

- Differential pricing is a complex subject
- Short overview following
- Further information:
  - Lecture “E-Commerce 1: B2C“, Prof. Skiera, Frankfurt
  - Skiera, B. (1999), Mengenbezogene Preisdifferenzierung bei Dienstleistungen, DUV Verlag, Wiesbaden.
  - Skiera, B. (2001), Preisdifferenzierung, in: Albers, S./clement, M./Peters, K./Skiera, B. (Hrsg.), Marketing mit Interaktiven Medien, Strategien zum Markterfolg, Frankfurt am Main, 267-281.

T-Mobile 2007:

Prices in € including value-added tax	T-Mobile web'n'walk large	T-Mobile web'n'walk medium	T-Mobile web'n'walk basic	T-Mobile Data 30	T-Mobile Data 5
minimal runtime	3 months	3 months	3 months	24 months	24 months
monthly price of options	50,00	35,00	20,00	10,00	5,00
inclusive volume	5 GB	400 MB	200 MB	30 MB	5 MB
price of volume per started data bloc beyond the inclusive volume; unit of account	0,50 1 MB	0,80 1 MB	0,80 1 MB	1,90 1 MB	3,00 1 MB

[T-Mobile, 9/2007]

Tariff Models

Deutsche Telekom 2013:

Prices in € including value-added tax	Mobile Data eco S	Mobile Data eco M	Mobile Data eco L	Mobile Data eco XL
minimal runtime	24 months	24 months	24 months	24 months
monthly price of options	19,95 €	29,95 €	49,95 €	69,95 €
inclusive volume	1 GB	3 GB	10 GB	30 GB
Extras	Inclusive LTE	Inclusive LTE Hotspot Flat	Inclusive LTE Plus Hotspot Flat Internet Telephony	Inclusive LTE Plus Hotspot Flat Internet Telephony

[Deutsche Telekom, 10/2013]

There are often multidimensional tariffs in mobile communications.

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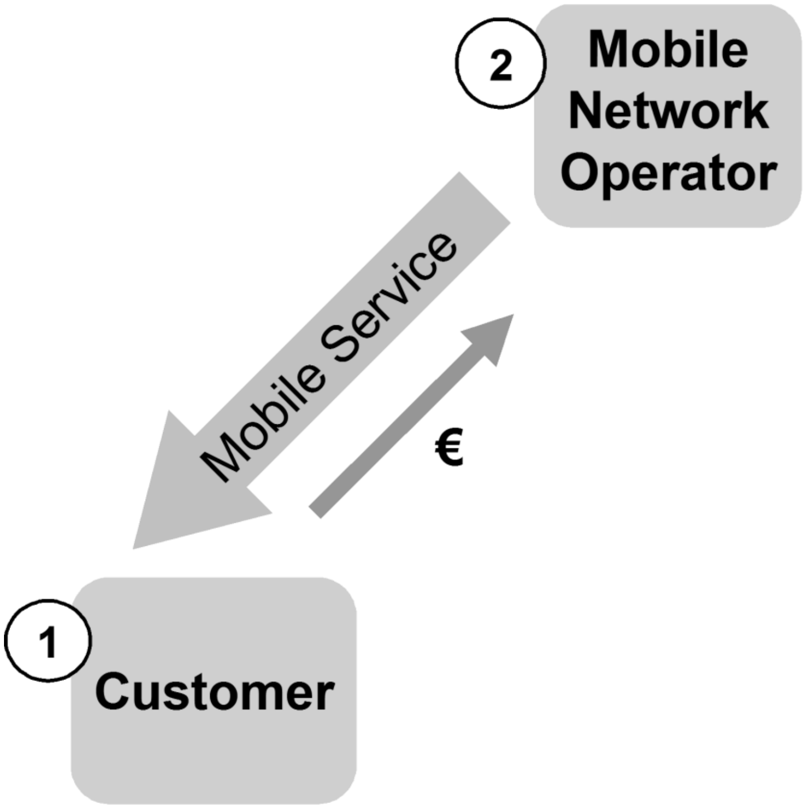
- Classical business model (CBM) I:

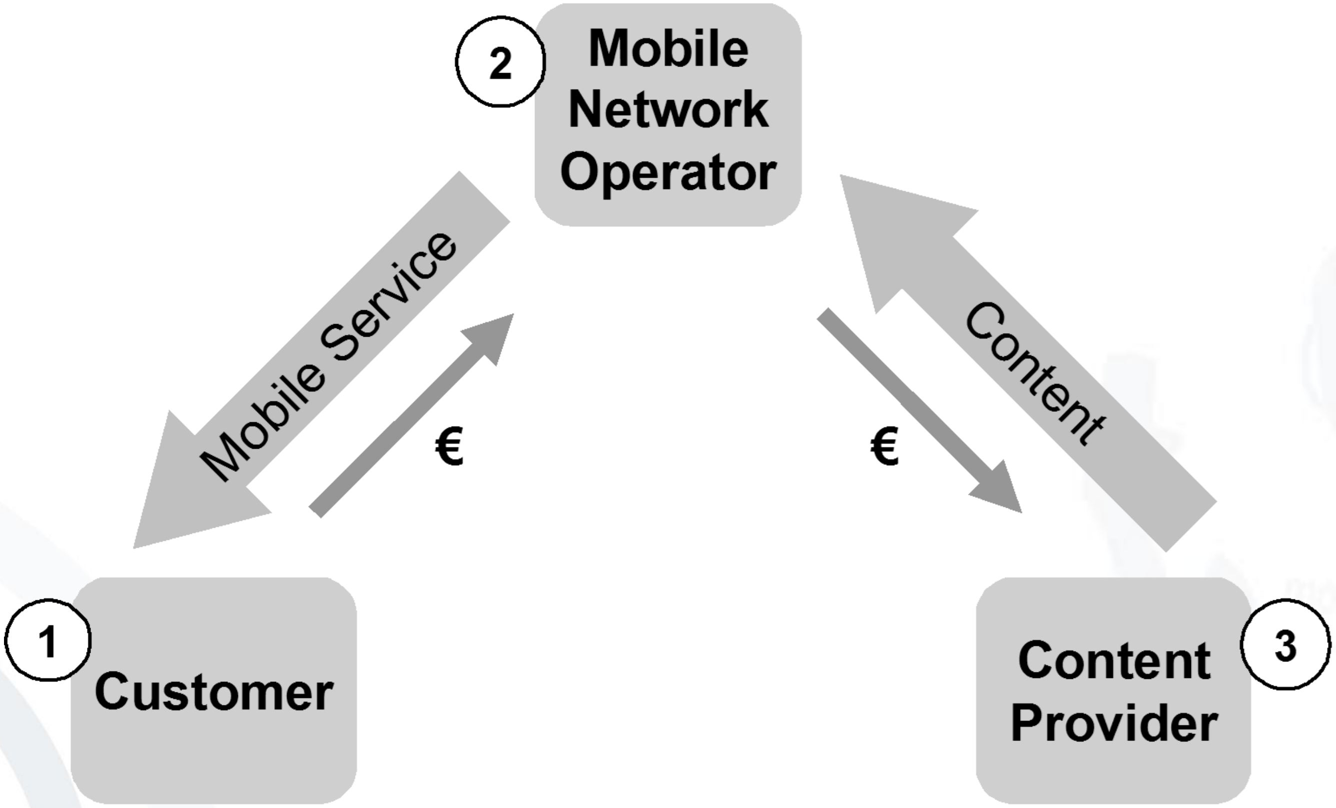


Classical Business Models for Mobile Network Operators

- Classical business model I:
  - Two parties: Customer, mobile network operator
  - Operator provides communication services and possibly contents to the customer.
  - Possibly the operator manufactures these contents himself. Providing contents is not his core competence.

Classical Business Models for Mobile Network Operators

- Classical business model II:



Classical Business Models for Mobile Network Operators

- Classical business model II:
  - Three parties: Customer, mobile network operator, content provider.
  - Operator purchases content (from the content provider) and passes it on to the customer.
  - Content Provision is not the core competence of the network operator.

Classical Business Models for Mobile Network Operators

- Extended classical business model:
  - If network operators lack the necessary competencies

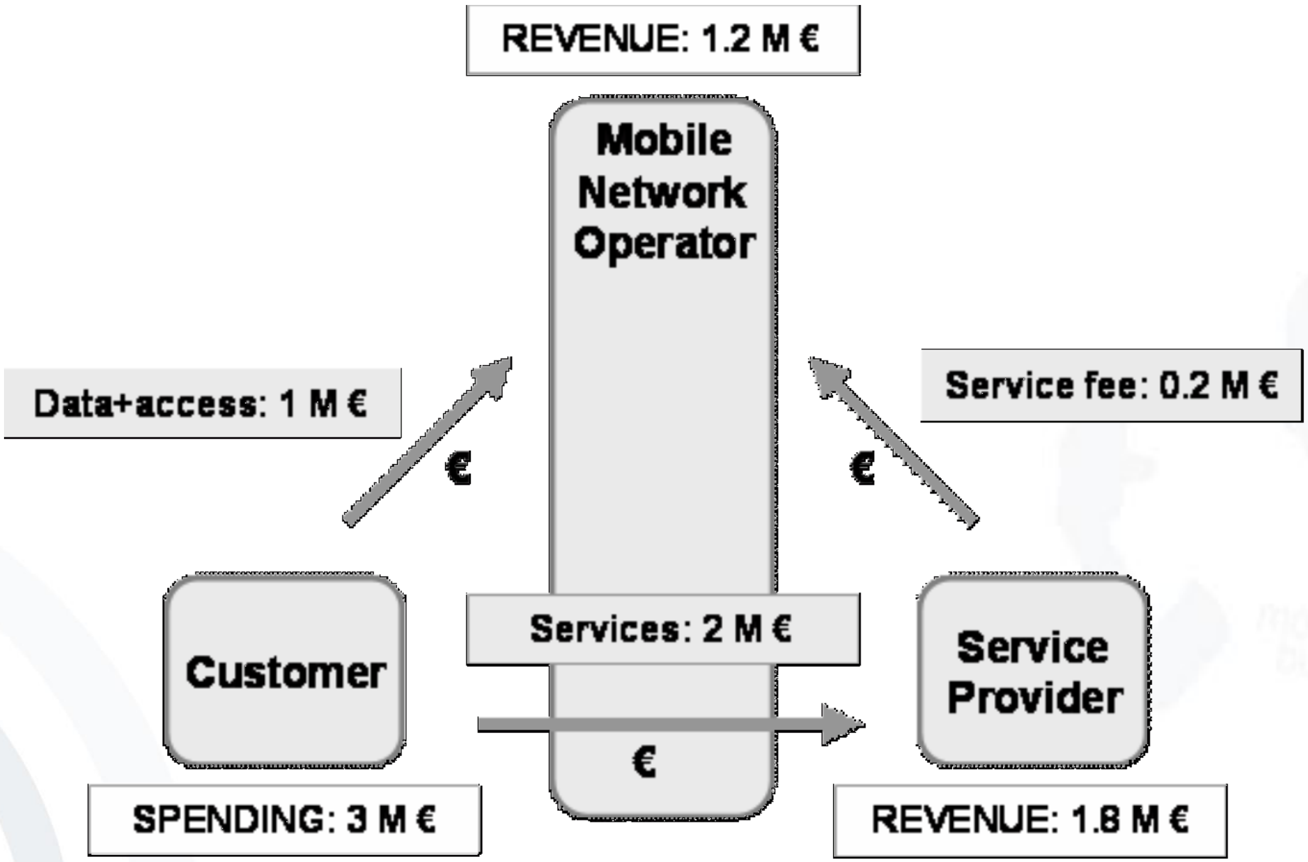
  ➲ Services are directly provided by “strong brands” (like McDonald’s, Douglas) e.g. i-Mode mobile business

Classical Business Models: Revenue Models

- Traditional revenue flows:
  - Assumptions:
    - Customer pays 10€ for 30 MB of data transferred (T-Mobile Data 30)
    - 10% of one million (= 100,000) customers of the operator use extra services and spend about 20€ per month .
    - 2 million € revenues for the service provider
    - For these services, 30 MB of data transfer is necessary per customer and month
    - ➲ 10 € expenditures per customer and 1 million € revenues for the operator.
    - Service-Provider pays 10% of his receipts as “Service Fee“ to the operator.
    - ➲ Revenues of the operator: 1m € + 0,2m € = 1,2m €
    - ➲ Revenues of the service provider: 2m € - 0,2m € = 1,8m €

Classical Business Models: Revenue Models

- Traditional revenue flows



Classical Business Models for Mobile Network Operators

In summary:

Value proposition:

Offering and marketing of mobile data communication and/or mobile services

Value creation architecture:

- Provision of mobile data communication (CBM I and II)
- Provision of content (CBM I and II)
- Production of content (CBM I)
- Purchase and adaption of content (CBM II)

➲ Combination of service offers

Classical Business Models for Mobile Network Operators

Revenue model:

Direct revenue model:

- either transaction-based (charged by data traffic)
- or flat rate

Pricing model:

Pricing based on differential pricing model

(cf. slides 23ff)

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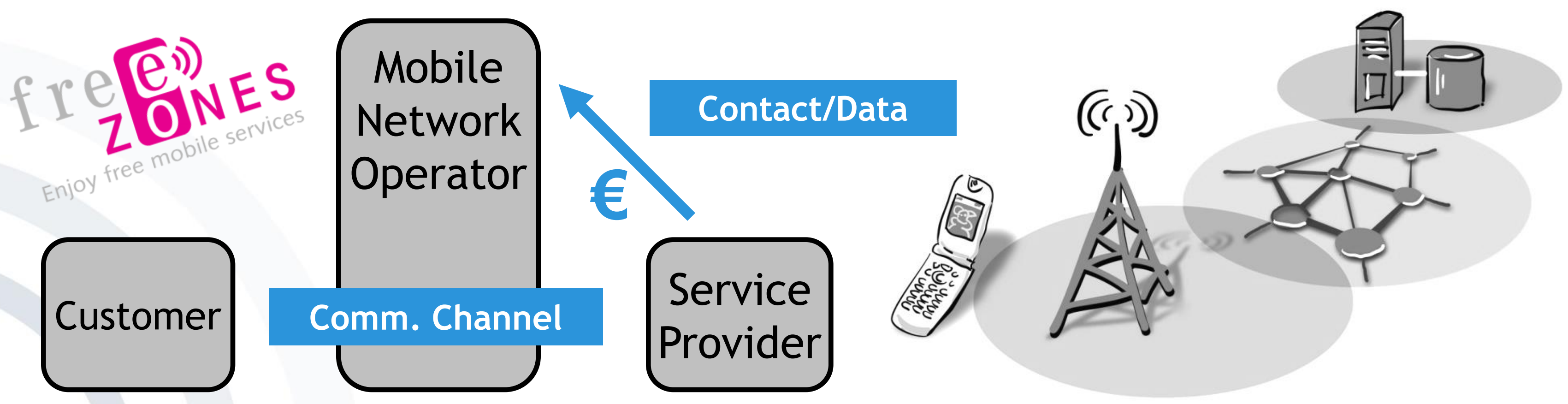
Developing a Value Proposition: Freezones

- **Potential:** Mobile network operators have a customer relation with more than 85% of the German population!
- **Offering:** Mobile network operators are providing service providers with a contact/communication channel to potential customers.
- **Objective:** Eliminating data costs for customers while making them marketing costs for service providers.



Business Models for Mobile Network Operators

- New approach
  - Disintegration of existing provider constellations through revenue-sharing and sponsoring

[FigSchMunRan2002]

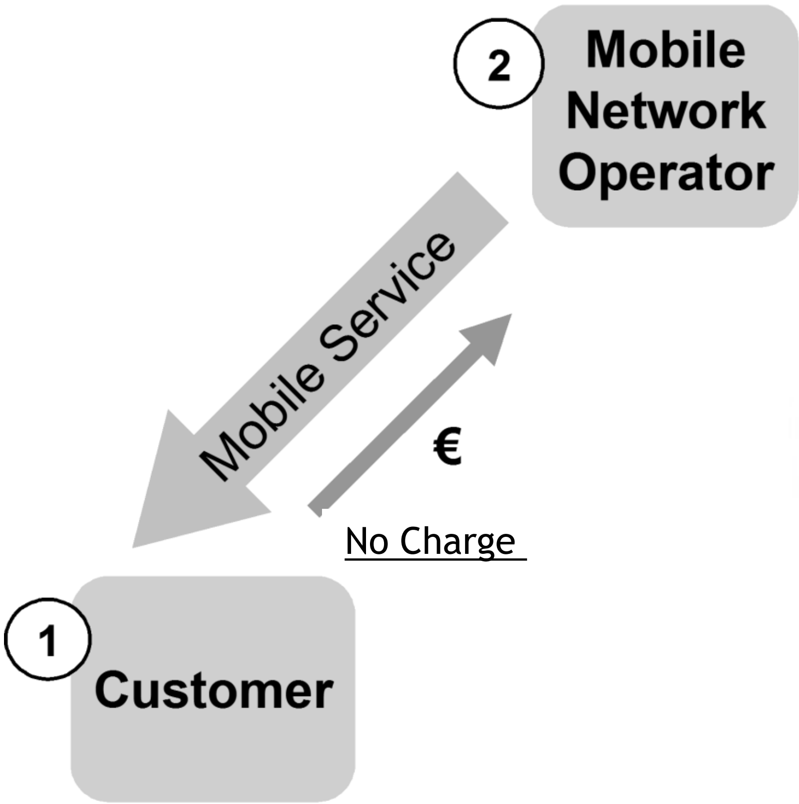
- New business model

  - “Reverse“ approach: Instead of charging the customer, the service provider contacts the customer and offers free access.

➲ Sponsoring of interesting (profitable) customers by advertising service providers

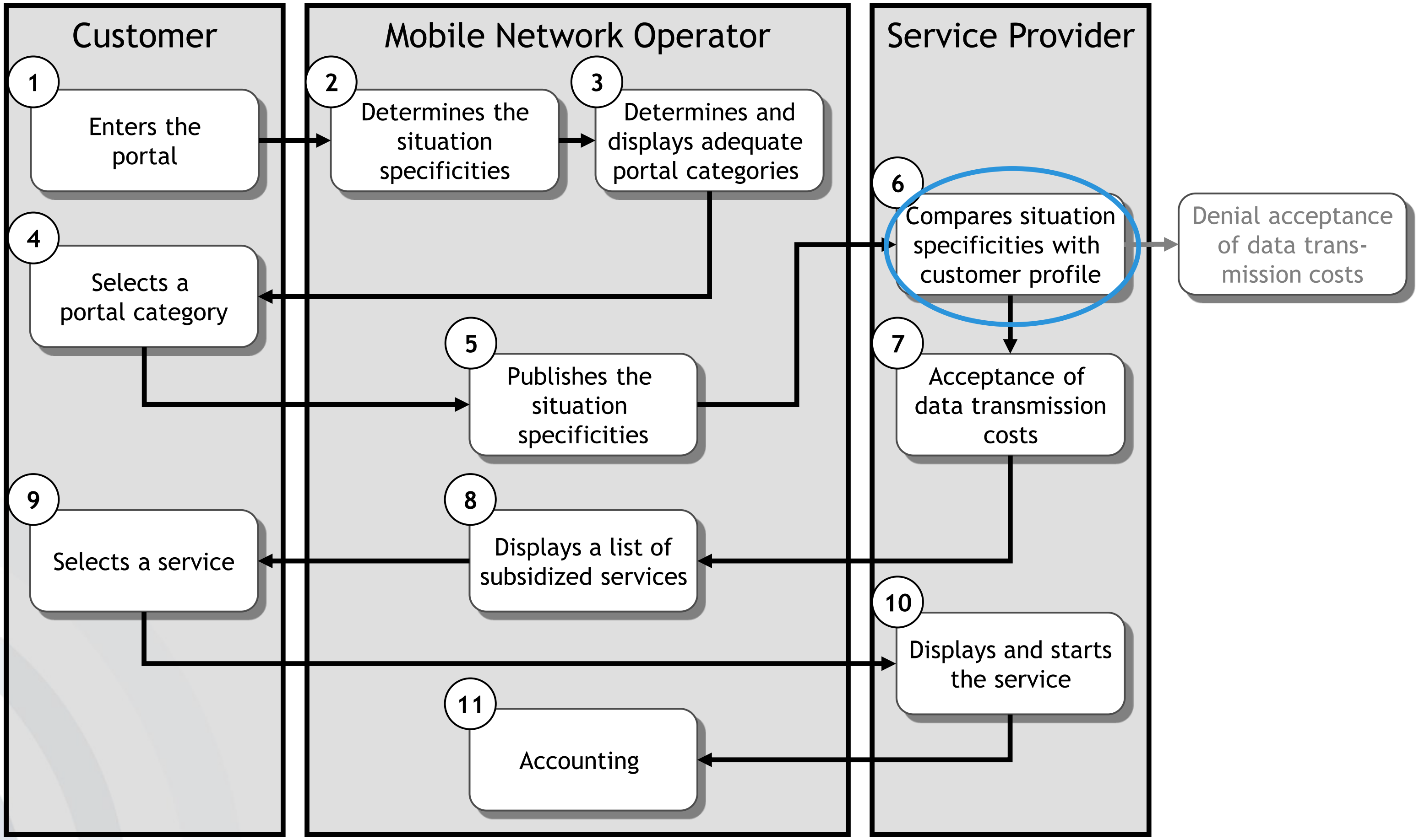
Business Models for Mobile Network Operators

- New business model:



Business Models for Mobile Network Operators

- Process for context sensitive services



Business Models: Revenue Models

- New revenue flows:
  - Assumptions:
    - Service provider pays (for the customer) 10€ for 30 MB of data transfer.
    - 18% of 1m customers of the operator use services (because data transfer is free now) and spend 20€ per month.

    ➲ 3,6 Mil. € receipts for the service provider

    - For these services, 30 MB of data transfer is necessary per customer and month

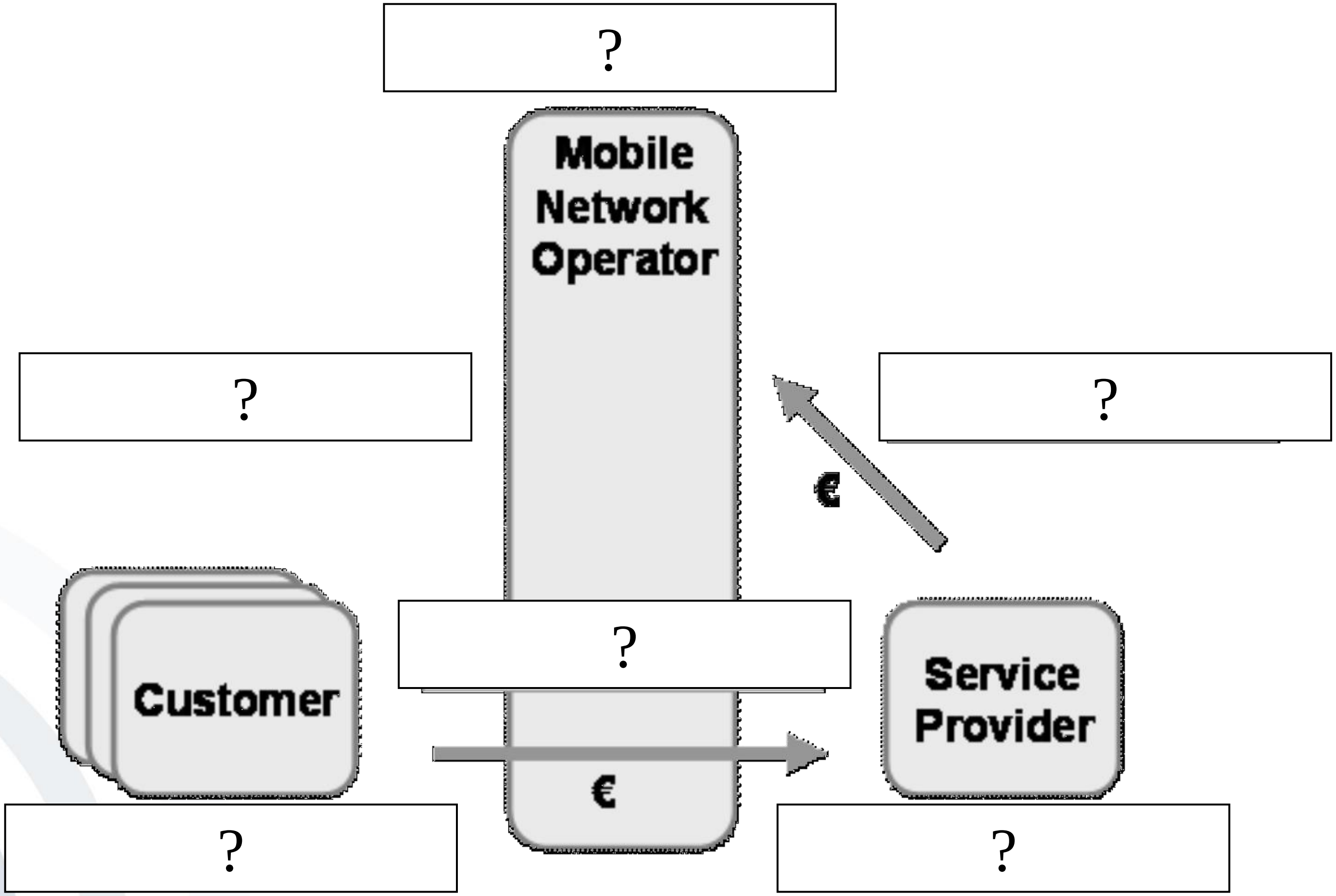
    ➲ 10€ expenditures per customer (by the service provider) and 1,8m € revenues for the operator.

    ➲ Revenues of the operator: 0m € + 1,8m € = 1,8m €

    ➲ Revenues of the service provider: 3,6m € - 1,8m € = 1,8m €

New Business Models: Revenue Models

- New revenue flows



- New revenue flows:

  - Assumptions:
    - Service provider obtains a 15% discount on data transfer: 30 MB only for 8.50 €.
    - Service provider obtains economies of scale which is just possible in this revenue model.

In summary:

➲ Towards the customer the value proposition and the value creation architecture are the same as in classical business models.

➲ Towards the advertising service provider the value proposition is the offering of customer contacts.

Differences in revenue and pricing

Revenue model:

Towards customer indirect revenue model:

- Data costs are eliminated for customers.
  - ➲ Revenue via advertisements

Pricing model:

Static pricing for advertising party based on CPT (contact price per thousand) mobile business

Literature

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