

Practical Exercise 4

Economic Basics II

Mobile Business I (WS 2010/11)

Prof. Dr. Kai Rannenber

T-Mobile Chair of Mobile Business & Multilateral Security
Johann Wolfgang Goethe University Frankfurt a. M.



- Exercise 1: Consumer Acceptance
- Exercise 2: Customer Trust in Mobile Commerce
- Exercise 3: General Model of Technology Acceptance



- a) Explain six issues which influence the consumer acceptance for mobile services.



a) Explain six issues which influence the consumer acceptance for mobile services.

- Willingness to pay for services
- Network effects
- Ease of Use
- Quality of service
- Product limitations
- Trust in service provider

- **Willingness to pay (WTP) for services**

WTP is defined as the maximum amount of money that may be contributed by an individual to equalize a utility change and purchase an offered service.

If the WTP is lower than the price for the offered service, the potential customer will not make the purchase and thus not accept the service.

- **Network effects**

The phenomenon that describes how products in a network increase in value to users as the number of users increases.

- **Ease of Use**

Five characteristics which must be met for the users of a service:

- Effective
- Efficient
- Engaging
- Error Tolerant
- Easy to Learn

- **Quality of service (QoS)**

QoS describes the level of performance, reliability and usability of a telecommunication service, rather than the achieved service quality.

A low QoS has a negative impact on the Consumer Acceptance

- **Product limitations**

Limitations of the Mobile device that have an negative impact on the quality of service and therefore on the consumer acceptance:

- Small screen size
- Small keyboards
- Limited processing power
- Connectivity and bandwidth

- **Trust in service provider**

The user perceives certain risks when making use of a mobile service:

- Breach of privacy
- Information theft

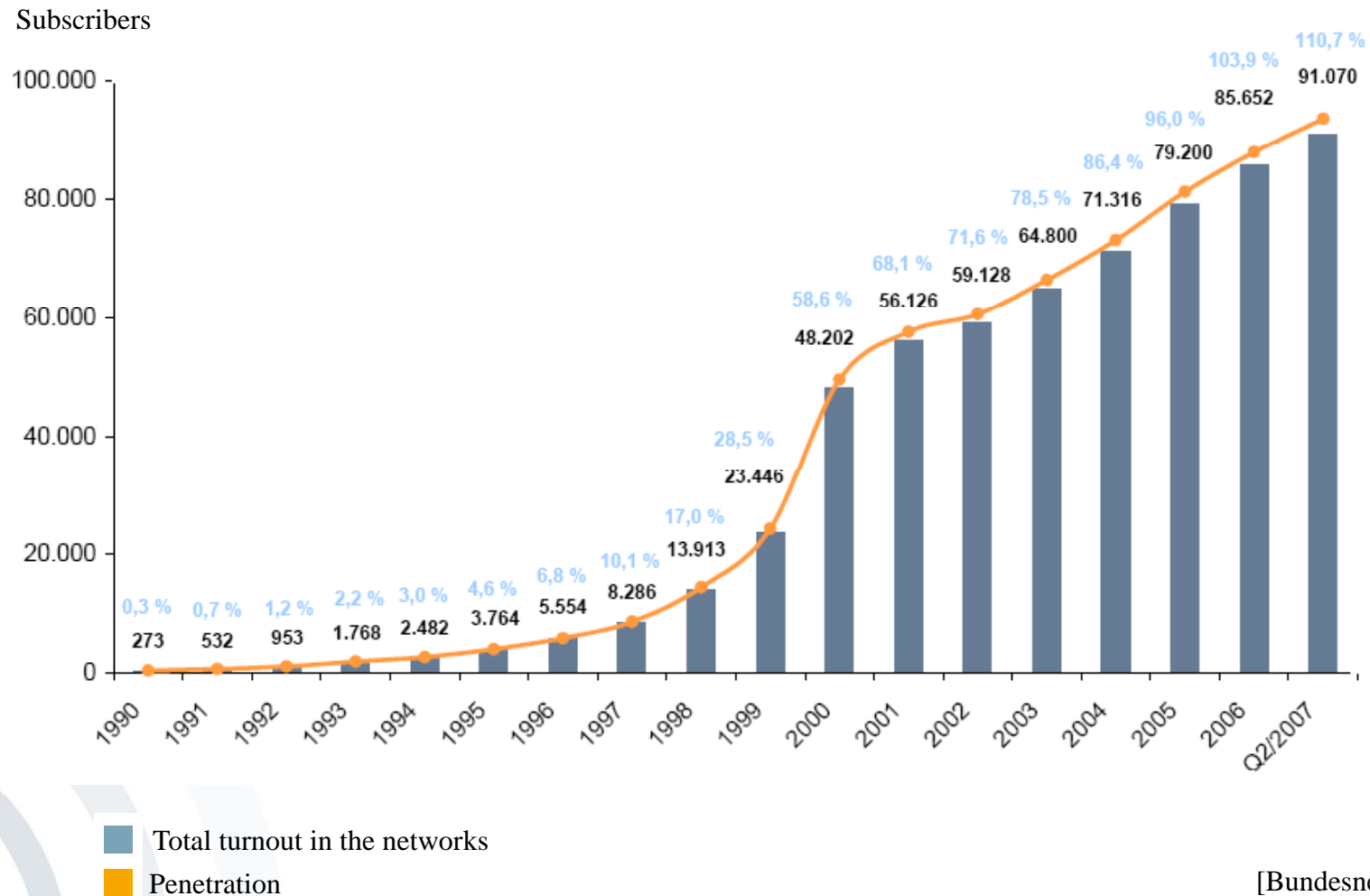
- b) Identify at least one example for each.



Excercise 1 b) Consumer Acceptance

Willingness to pay for services	Introduction of SMS Service in the 1990s
Network effects	Development of Mobile Network subscribers between 1999 and 2000*
Ease of Use	App Stores open the mobile application market (e.g. Apple App Store in 2008)
Quality of service	Acceptance of MobileTV/Mobile Video depends on a high level of QoS and high bandwidth
Product limitations	Limited accessibility for elderly people due to small screen size, small keyboards
Trust in service provider	Apps certified by a central entity builds trust (e.g. (Apple App Store)

Subscriber changes in mobile network

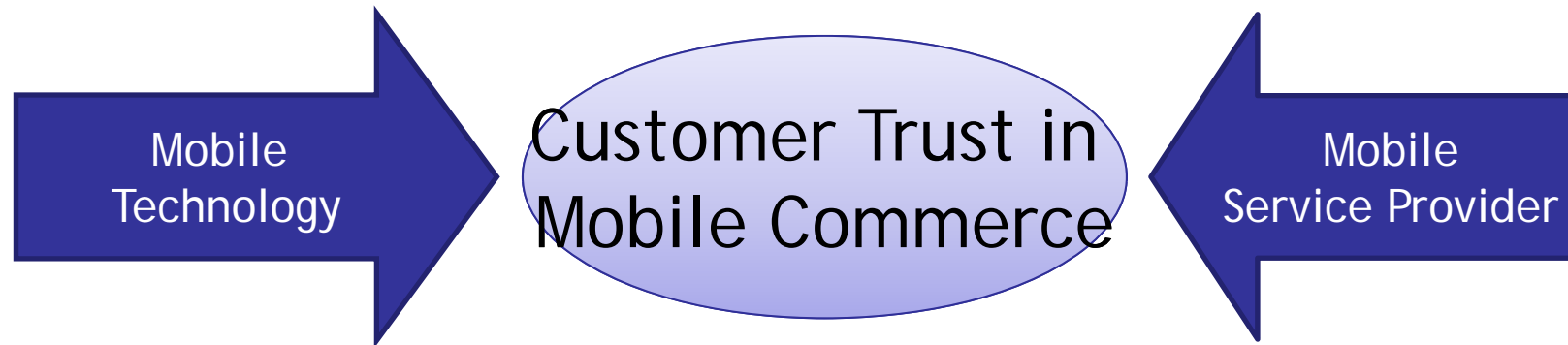


- Exercise 1: Consumer Acceptance
- Exercise 2: Customer Trust in Mobile Commerce
- Exercise 3: General Model of Technology Acceptance



- a) Name the two components which influence Customer Trust in Mobile Commerce.





- Reliability and security of mobile technology are equally important, since failures in the early stages of the usage of M-Commerce reduce the customers' trust significantly.
- As mobile technology evolves, the trust focus shifts from technology to the mobile service provider.

b) Identify one Best Practice for each attribute of the lectures' Framework for building trust in M-Commerce.

The next slides are the basis for discussion during the lesson. They are not the Best Practices themselves.

Mobile Service Providers

Familiarity Reputation Information Quality 3 rd -Party Recognition Attractive Rewards	Site Quality Competence Integrity Privacy Policy Security Controls Open Communication Community Building External Auditing
--	---

Mobile Technology

Feasibility	Reliability Consistency
-------------	----------------------------

Initial Trust Formation

Continuous Trust Development



- In order to build an initial trust formation, service providers *must* disseminate information, cultivate interest, etc.
 - **Enhance customer familiarity**, as people tend to trust the familiar, e.g. by general publicity or advertisements.
 - **Build vendor reputation**, as a good reputation suggests certainty and less risk in conducting business.
 - **Deliver high-quality information**, as the information posted on a company has a high impact on the customers' perception.
 - **Elicit third-party recognition and certification**, as the independent nature of third-party certification helps customers to feel more secure in doing business with the M-Commerce provider.
 - **Provide attractive rewards**, such as free trials or gift cards helping to attract new customers.

- ***Improve site quality:***
 - User-friendly design of web-sites accessed by mobile devices (e.g. giving customers sufficient information for purchases) helps to convey the vendor's competence.
- ***Sharpen business competence:***
 - Refers to the skills, technical knowledge, and expertise in operating M-Commerce applications.
- ***Maintain company integrity:***
 - Providers need to be congruent with regard to the actions and the promises given to their customers.
- ***Post privacy policy:***
 - Similar to E-Commerce providers, M-Commerce providers should post their privacy policy online, so customers are informed about the information being processed
 - ➔ Helps to build transparency.

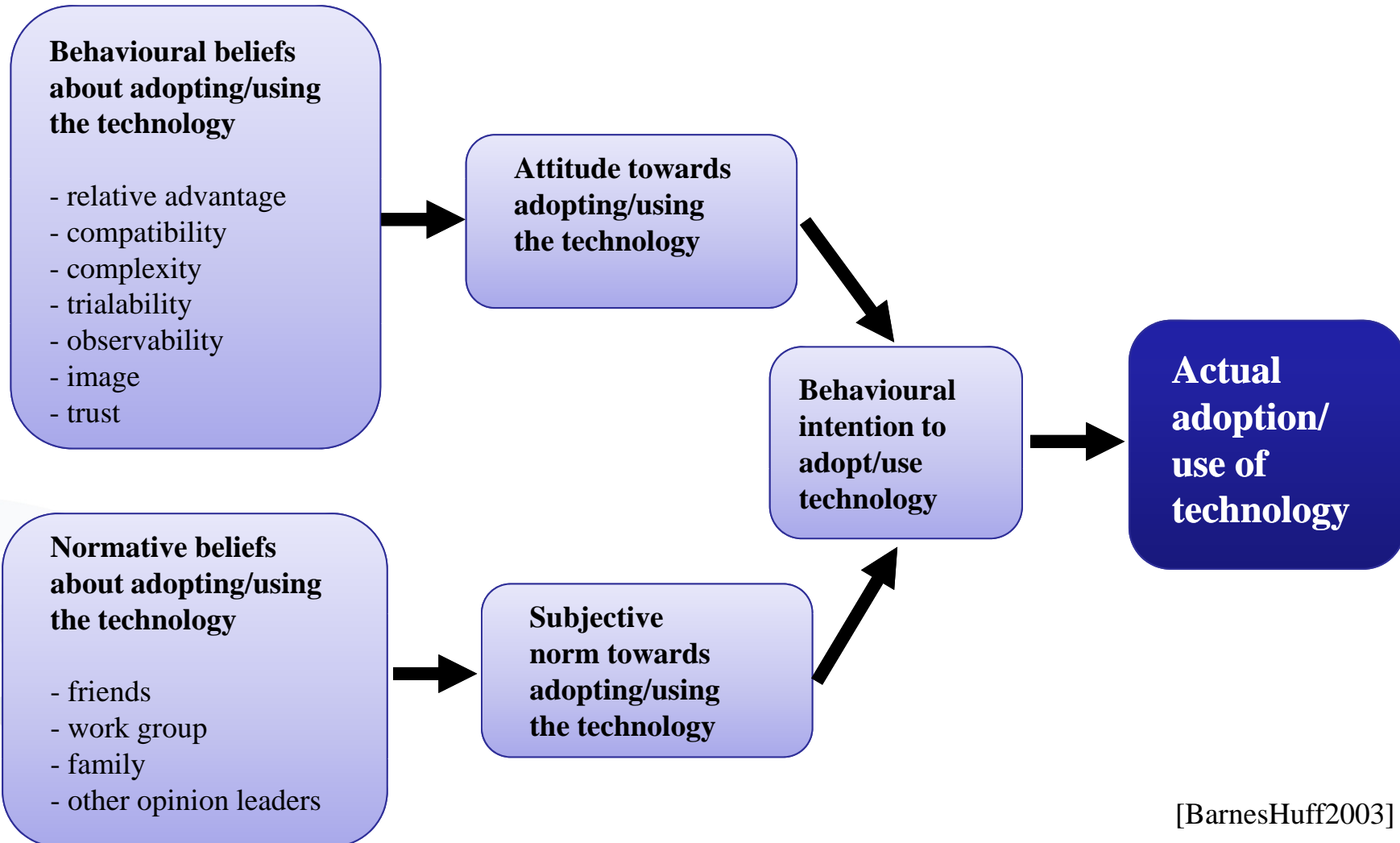
- ***Strengthen security controls:***
 - In order to have secure M-Commerce transactions, technologies need to be in place that help to allow Multilateral Security for all involved parties.
- ***Foster a Virtual Community:***
 - By building virtual communities, mobile service providers can replicate the success of web-based online communities and create positive evaluations by their users.
- ***Encourage communication and increase accessibility:***
 - In order to build synergies, the users should be brought into close communication with the M-Commerce provider, reducing information asymmetries and fostering the provider's credibility and trustworthiness.
- ***Use external auditing to monitor operations:***
 - External auditing helps to maintain the customers' trust by keeping the provider to behave fair and legally.

- Exercise 1: Consumer Acceptance
- Exercise 2: Customer Trust in Mobile Commerce
- Exercise 3: General Model of Technology Acceptance



- a) Make a draft of the General Model of Technology Acceptance introduced in the lecture and describe the interrelation of the single components.

General Model of Technology Acceptance based on TRA and DOI



[BarnesHuff2003]

- **Behavioral beliefs** link the behavior of interest to expected outcomes. A behavioral belief is the subjective probability that the behavior will produce a given outcome.

- ***Relative Advantage:***
 - The degree to which the innovation is perceived as being better than the practice it supersedes
- ***Compatibility:***
 - The extent to which adopting the innovation is compatible with what people do
- ***Complexity:***
 - The degree to which an innovation is perceived as relatively difficult to understand and use
- ***Trialability:***
 - The degree to which an innovation may be experimented with on a limited basis before making an adoption (or rejection) decision
- ***Observability:***
 - The degree to which the results of an innovation are visible to others

- **Normative beliefs** refer to the perceived behavioral expectations of such important referent individuals or groups as the person's spouse, family, friends, and -- depending on the population and behavior studied - - teacher, doctor, supervisor, and coworkers.

- ***Attitude towards the adopting/using the technology*** are the individual's positive or negative feelings about adopting/using a technology, determined through an assessment of one's beliefs.
- ***Subjective norm*** is defined as an individual's perception of whether people important to the individual think the behaviours should be performed.

- ***Behavioural intentions*** are a function of an individual's attitude towards the behaviour and the subjective norm surrounding the performance of the behaviour.

b) Apply the General Model of Technology Acceptance to the current Innovation process for Smartphone's and describe the key innovation characteristics.



- ***Relative Advantage:***
 - Availability/reachability of the subscriber
 - Communicate (almost) anywhere / anytime
 - Personal device(s)
- ***Compatibility:***
 - High compatibility in society, as flexibility and reachability get more and more important.
- ***Complexity:***
 - Low to medium:
 - Basic functionality (e.g. telephony) can be used by everyone being capable of using a standard, fixed-line telephone.
 - Advanced features (e.g. SMS) need further training to use them.

- ***Trialability:***
 - High: A potential customer can subscribe to a prepaid contract for testing the technology and later on switch to a “normal” subscription based contract.
- ***Observability:***
 - Reachability of the customers anytime and anywhere.
 - More and more people are using mobile phones and services.
 - People using mobile phones can easily be observed by non-users.
 - The concept and benefit of mobile telephony is easily observable by non-users.

c) What are normative beliefs about using smartphones? Name two positive and two negative examples.



- Positive Normative beliefs:
 - Work Group: Never out of touch - "My coworkers are available 24/7, I have to keep up with them and keep in touch with the business."
 - Business Partners: Status Symbol - "People think I am successful at what I do. As a smartphone is only granted at a certain career level."
- Negative Normative beliefs:
 - Family: Work-Life Balance - "My family complains, that I have less time due to my heavy smartphone usage."
 - Friends: Social Outcast - "My friends complain, that I take calls and chat via my smartphone while share our leisure time."