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FACULTY OF ECONOMICS
AND ADMINISTRATION

Mobile Commerce in the Czech Republic

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What can you expect

1. What is m-commerce and why should it be important
2. M-commerce applications
3. Trends in m-commerce



Terms

Landline,

- main line or fixed-line - a telephone line which travels through a solid medium, either metal wire or optical fibre

Mobile network carrier

- mobile network operator (MNO), also known as carrier service provider (CSP), wireless service provider, wireless carrier, mobile phone operator, or cellular company, is a telephone company that provides services for mobile phone subscribers

Terms

Postpaid

- on plan, tariff, tariff plan – use and than pay model. Usually period of one month and at least „base“ fee has to be paid.

Prepaid

- pay and than use model. Doesn't involve obligation to pay if you don't use the service, usually doesn't require a contract.

Mobile technologies

Infrastructure operated by mobile network carriers

M-commerce: definition

Set of processes which result in financial obligation and where at least one part is executed via mobile technologies

or

The delivery of electronic commerce capabilities directly into the consumer's hand, anywhere, via wireless technology

Importance of m-commerce

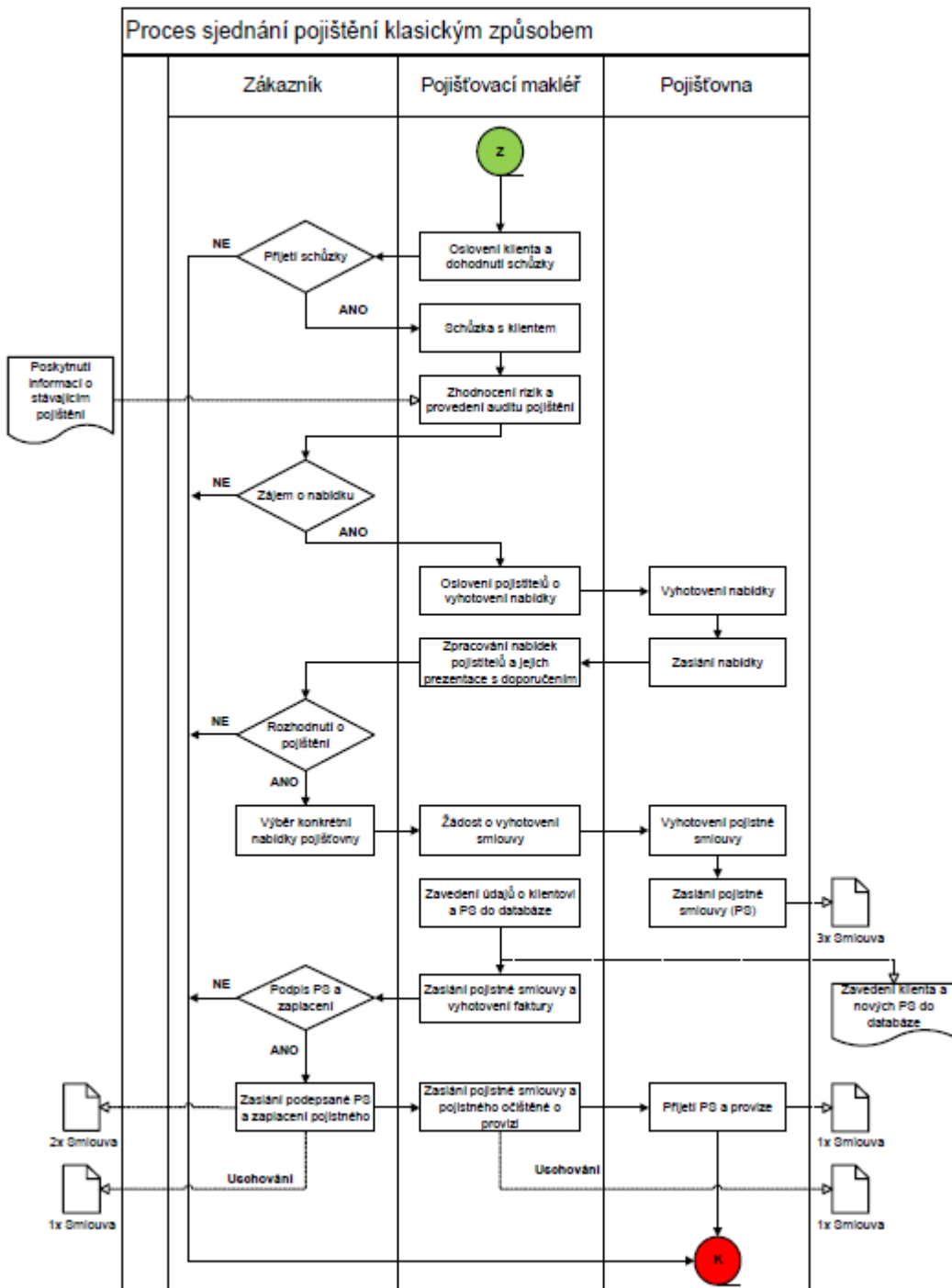
- For economy (in 2011 in Czech Republic)
 - Expenses on mobile services (70 bil. CZK)
 - Investments into mobile infrastructure (4.7 bil. CZK)
 - Employment (20 thousand employees in this sector)
- For businesses and individuals
 - Optimization of processes
 - New applications (new services)

Importance for the economy

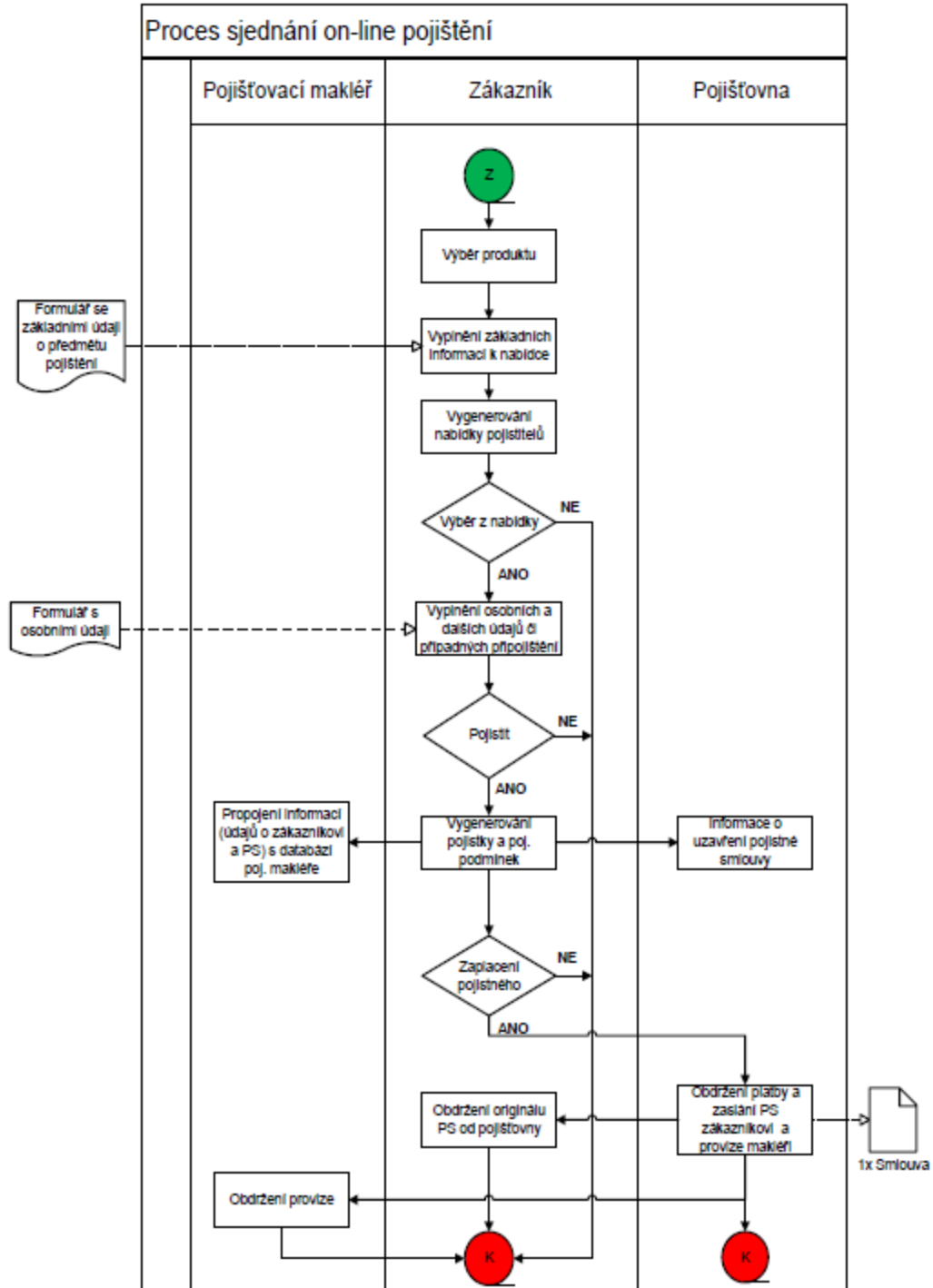
Example: Marketing spendings by mobile network operators

1992: Czech telecommunications to SPT Telecom	10 mil. CZK
2000: SPT Telecom to Czech Telecom	250 mil. CZK
2002: Czech Telecom to Telefonica O2	500 mil. CZK
2002: Paegas to T-mobile	500-600 mil. CZK
2005/6: Oskar to Vodafone	500 mil. CZK

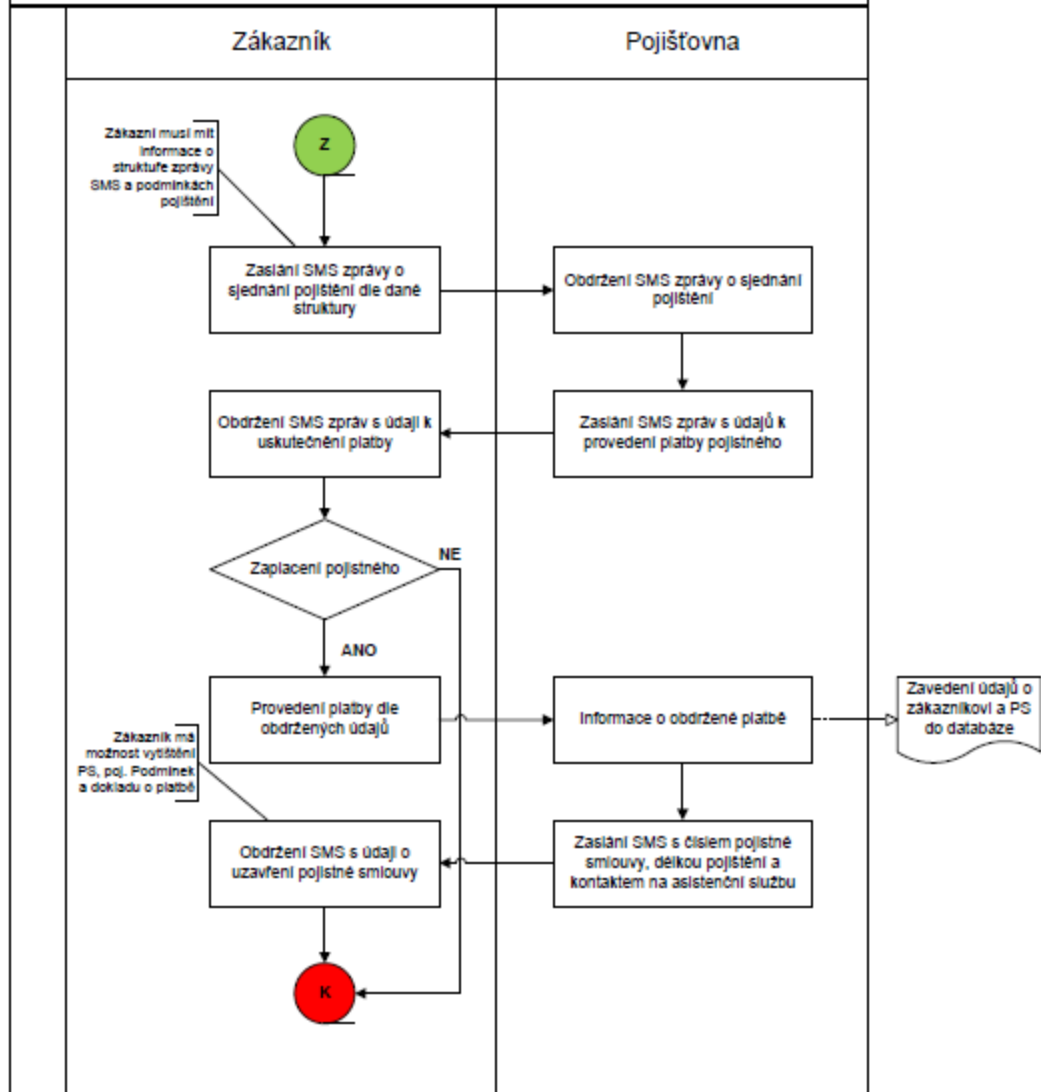
Proces sjednání pojištění klasickým způsobem



Proces sjednání on-line pojištění



Proces sjednání pojištění prostřednictvím SMS zprávy





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Applications in m-commerce

M-commerce applications (characteristics)

1. Low initial costs
2. Easy of use
3. Immediate use
4. Clear identification
5. Localization
6. Penetration
7. Display

M-commerce applications

- Content services (sending of messages, dictionaries, ...)
- Messaging – sending SMS/MMS to customers
- Remote Access/Mobile Office (access to company´s intranet)
- Emergency Services (112, 911)
- Video and audio data – usually by 3G services
- Entertainment – games, competitions, ringtones
- Tailing – purchasing or reservation of tickets (Mobitickets)
- Financial Services – banking and broking
- Payment – m-payments
- Navigation – Global positioning system
- Telemetry – automatic sending of data between machines
- Marketing services – SMS inquiries, company´s logos, collecting of loyalty bonuses via mobile phone

M-business applications

- m-Presence
- m-Payment
 - m-Banking
- m-Purchasing
- m-Procurement
- m-Shop
- m-Auction
- m-Care
- m-Marketing

M-marketing (characteristics)

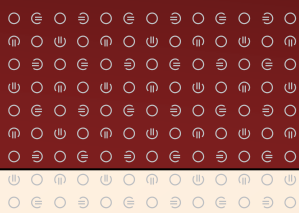
- Form of direct marketing
- Still in its beginning
- Any form of marketing activity via mobile phone

M-marketing (forms)

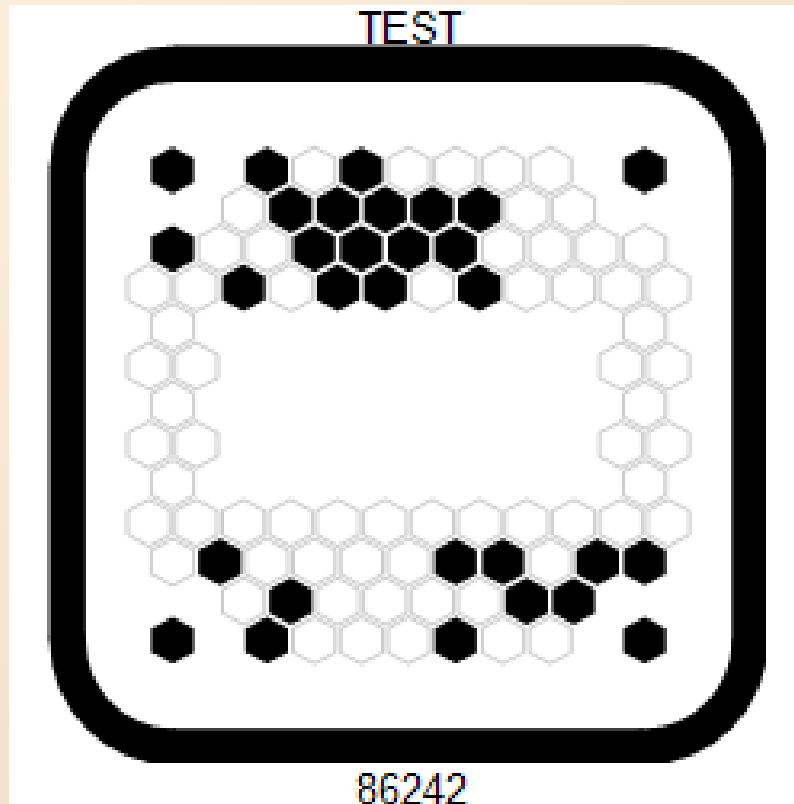
1. SMS messages
2. SMS competitions, voting, inquiries
3. Advergaming (via SMS, WAP, Java games)
4. Logos, ringtones
5. Bluecasting, cell broadcasting
6. Mobile tagging

Mobile Tagging

- A product bears a tagg
- User takes a picture of the tagg by mobile phone
- Application in mobile phone translates the picture into unique ID code, connects to server and provides link to webpages (or wappages) of product in question



Mobile tagging – 2D code





<http://is.muni.cz/>



Mobile payments (forms)

1. Premium SMS/MMS

- Most known, most used, most expensive
- Mobile originated, mobile terminated

2. M-payment

- Through gateway like with credit card on internet, but phone number instead of cc number

3. M-purse (M-wallet)

- Connected to bank account, credit card or prepaid amount.

4. NFC (near field communication)

- Non contact short distance payment

5. M-banking

Mobile payments (comparison)

Method	Cash	Credit/debit card	Non contact card	Non contact sticker	NFC SIM
Time (s)	29	26	5	5	0,1



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Trends in m-commerce



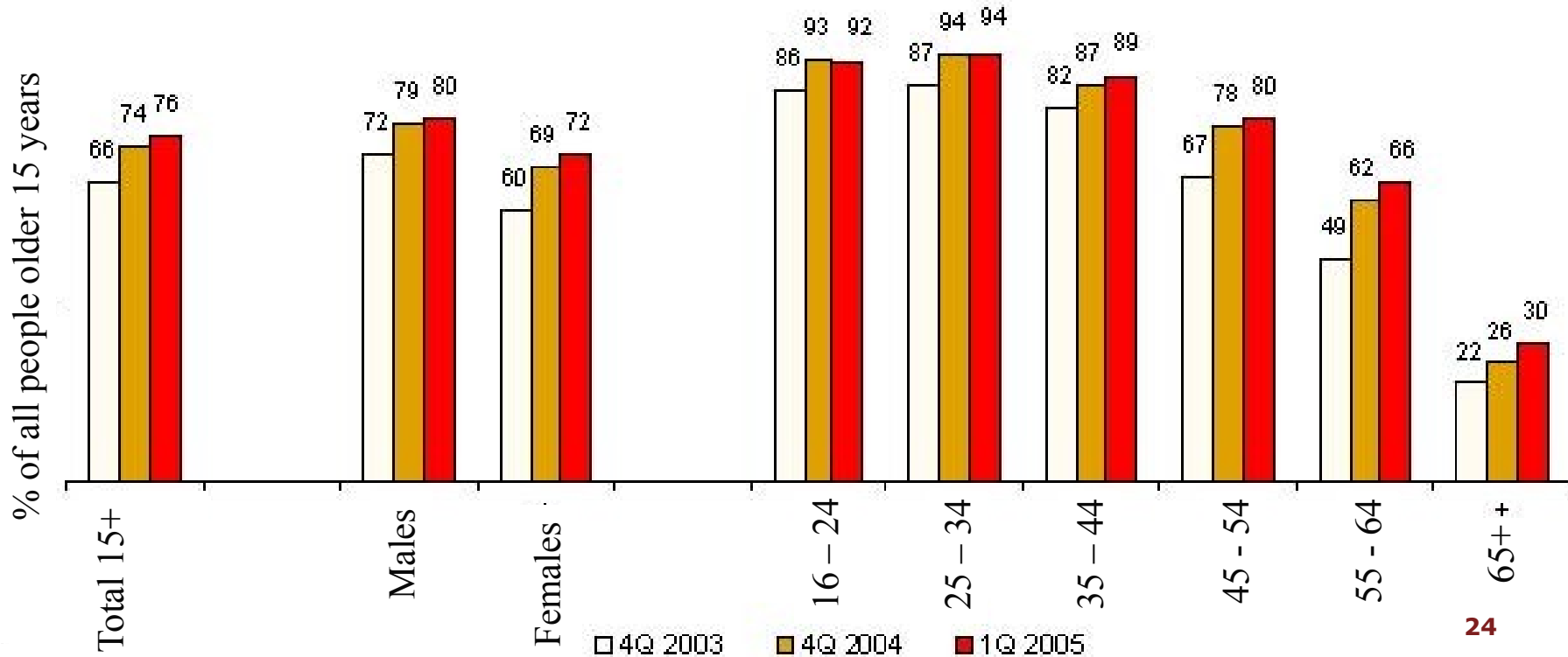
Current trends

1. Penetration
2. Technologies (high-performance devices, faster data transmissions)
3. Changes in value chain in mobile telecommunications
4. Sociological changes – use of mobile phones

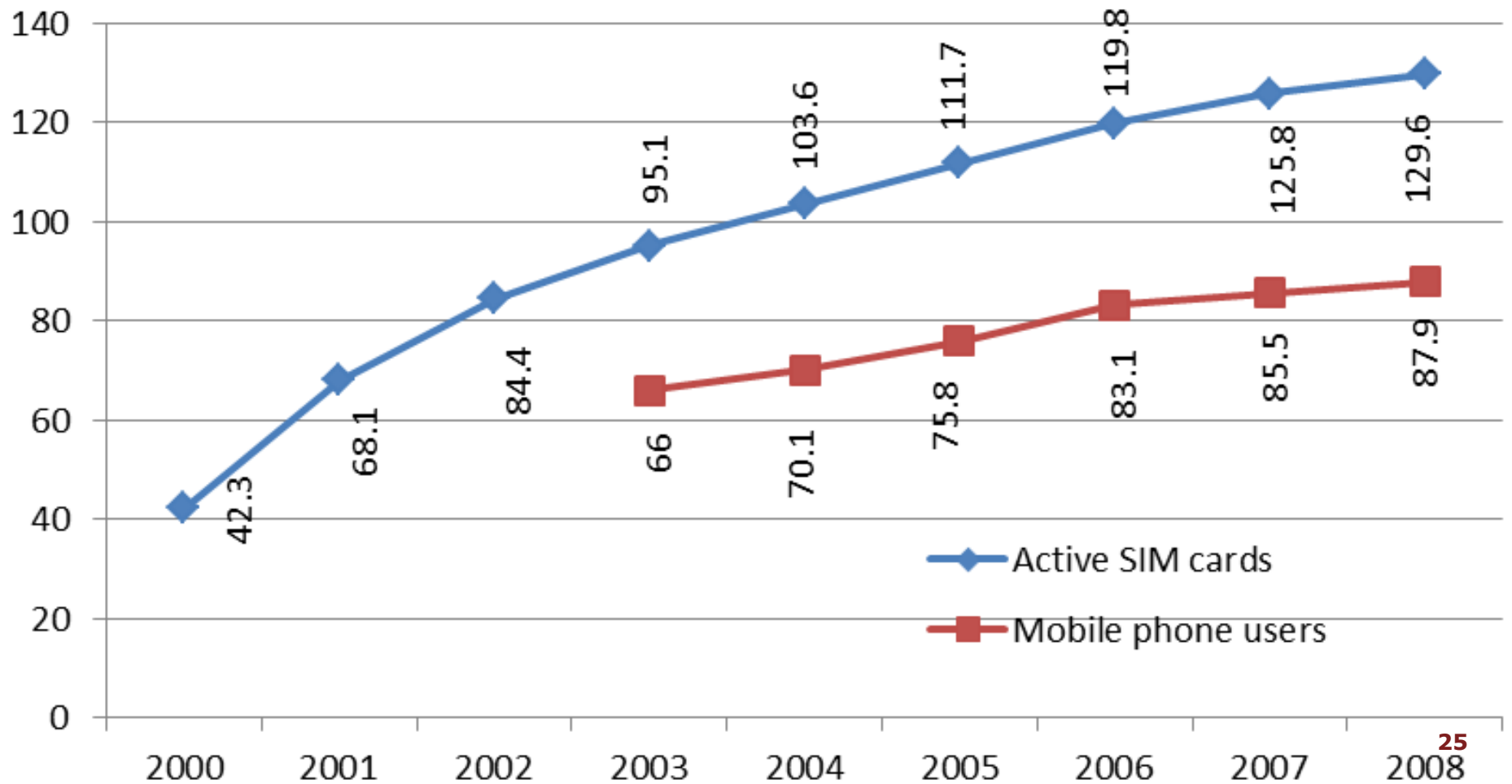


Trends in m-commerce: penetration

- Penetration CZ: 128.5 %, developed nations 117.8 %, Europe 119.5 %.
- Real penetration: CZ in 2005: 76 %, 2008: 87.9 %

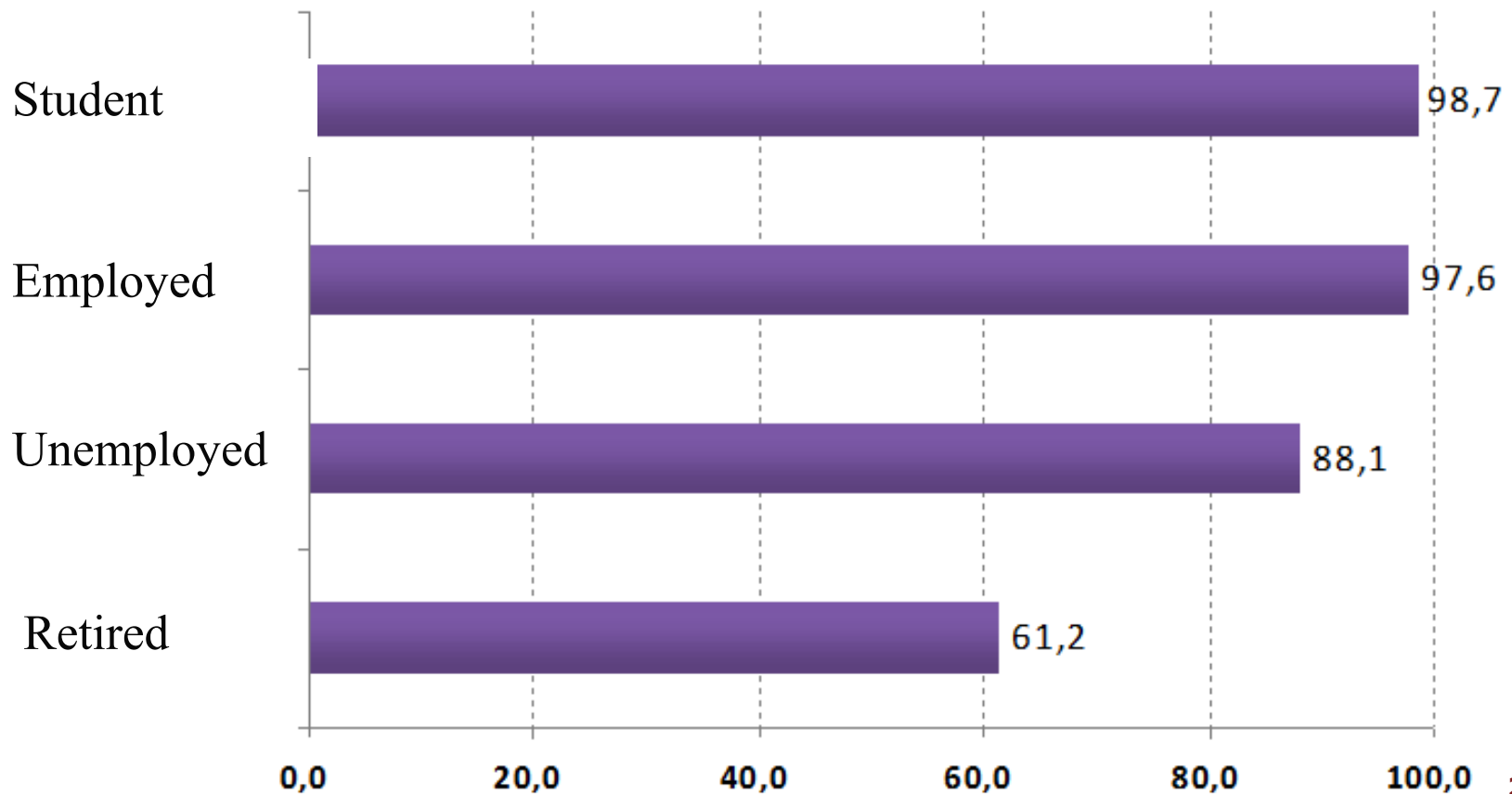


Penetration



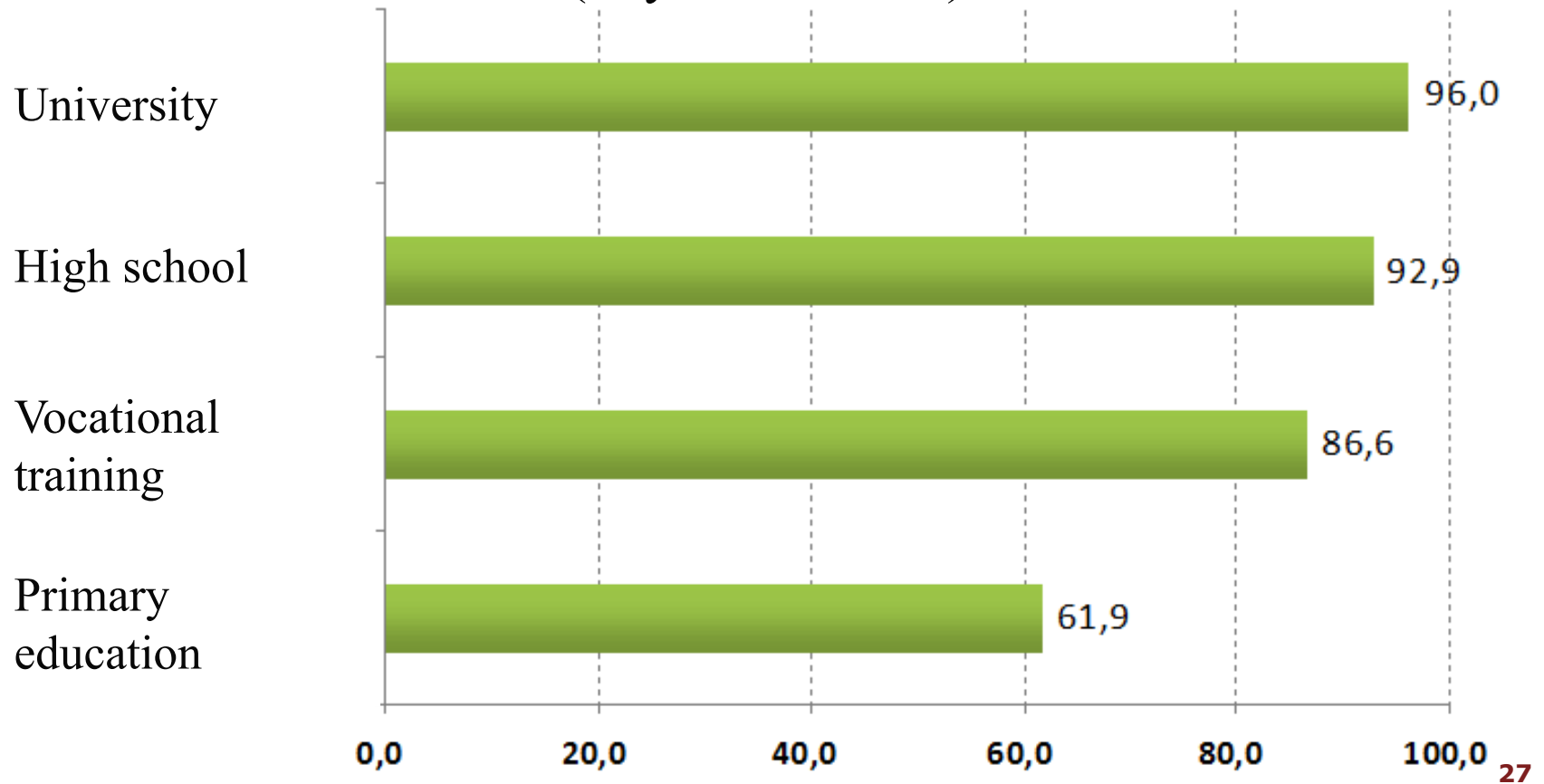
Penetration

Mobile phones penetration according to economical activity
(16yrs and older)



Penetration

Mobile phones penetration according to education
(16yrs and older)





Penetration: results

1. Virtual operators
2. Structure of the customers: prepaid vs. postpaid



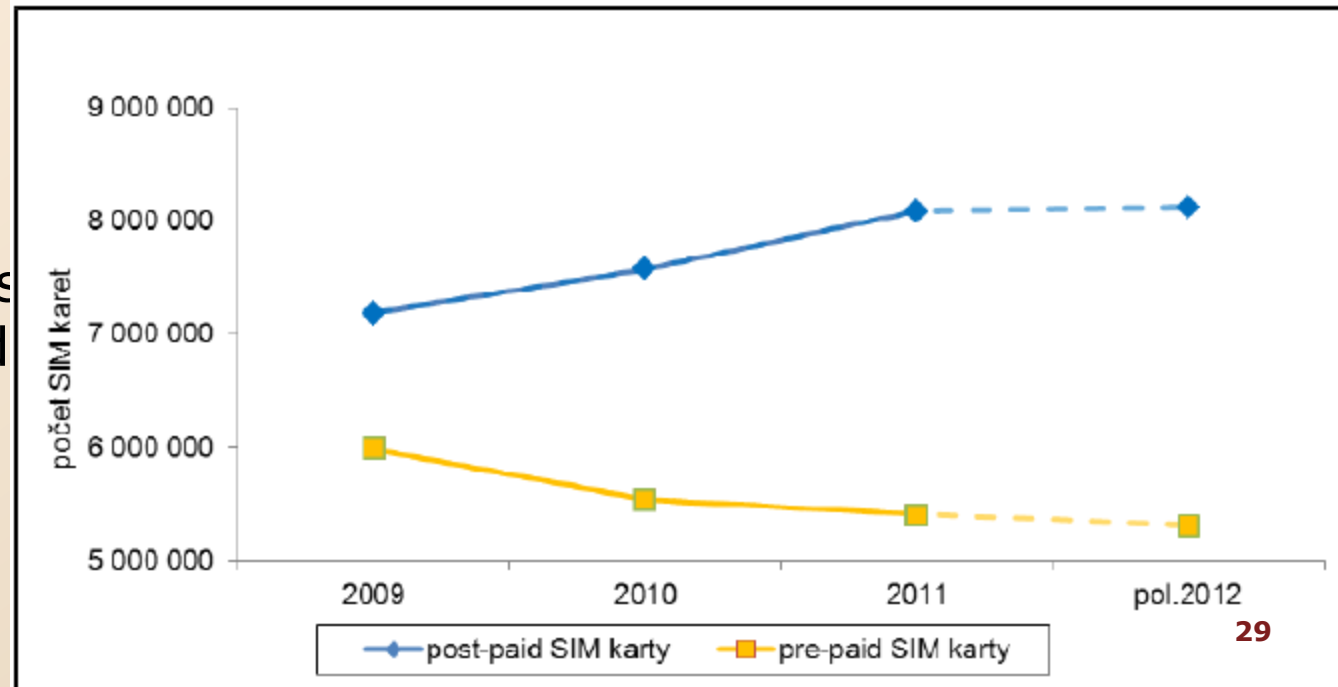
Trends in m-commerce: prepaid vs. postpaid

■ Postpaid customers are much more profitable

- In 2008 Vodafone had about 50% customers on plans (= postpaid) and the ARPU of them was 966 CZK monthly. Compare to ARPU of prepaid customers 342 CZK

■ Customers on plan are more likely to be loyal

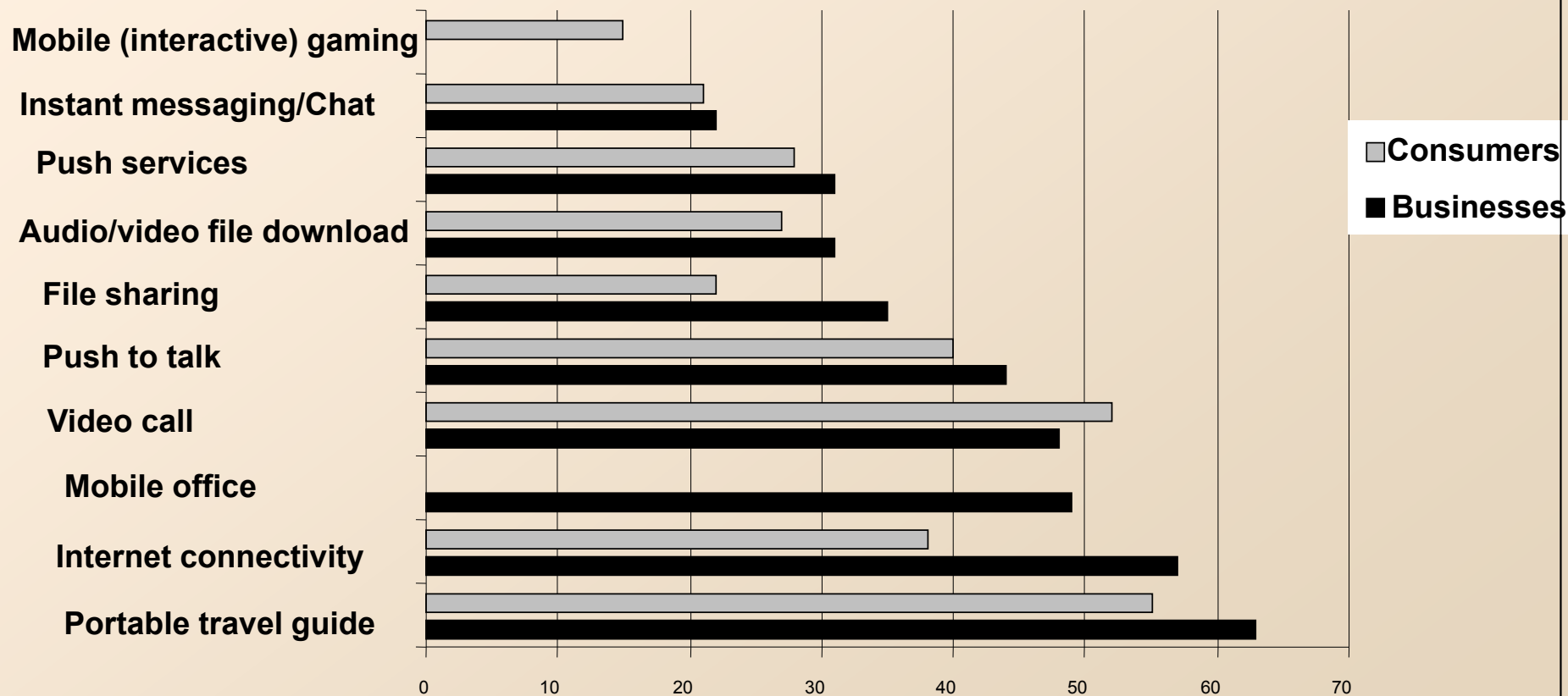
- That is important because full portability of phone numbers was introduced



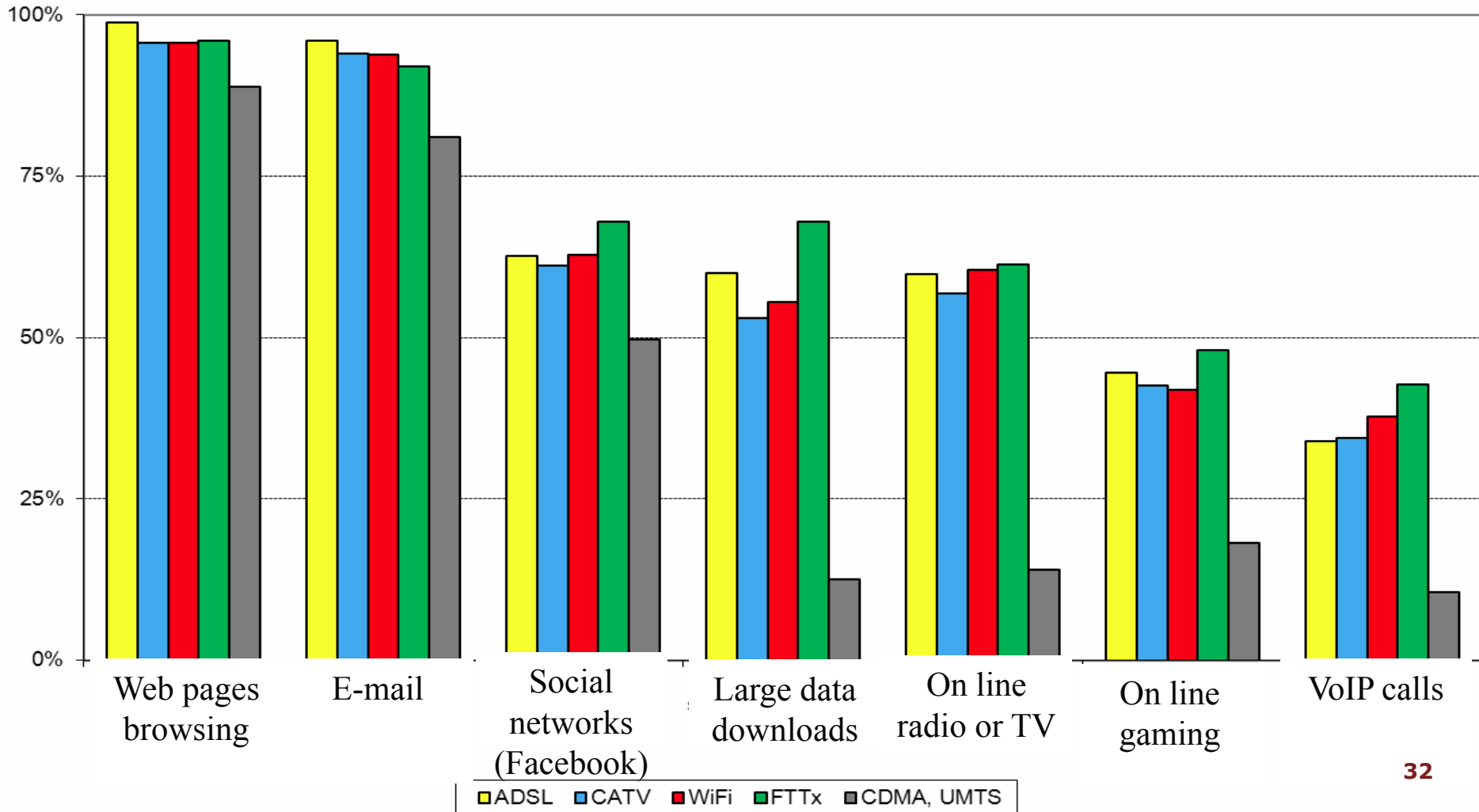
Trends in m-commerce: data services

Standard	Download speed theoretical	Download speed real
GSM	14,4 kbit/s	14,4 kbit/s
HSCSD	115,2 kbit/s	43,2 kbit/s
ISDN	1920 kbit/s	128 kbit/s
GPRS	171,2 kbit/s	85,6 kbit/s
EDGE	236,8 kbit/s	150 kbit/s
CDMA2000	2457,6 kbit/s	300 – 1500 kbit/s
UMTS	384 – 10 Mb/s	200 – 1800 kbit/s

Expected services in 3G networks (Milvard Brown survey, CR 2005)



Data services: actually used services



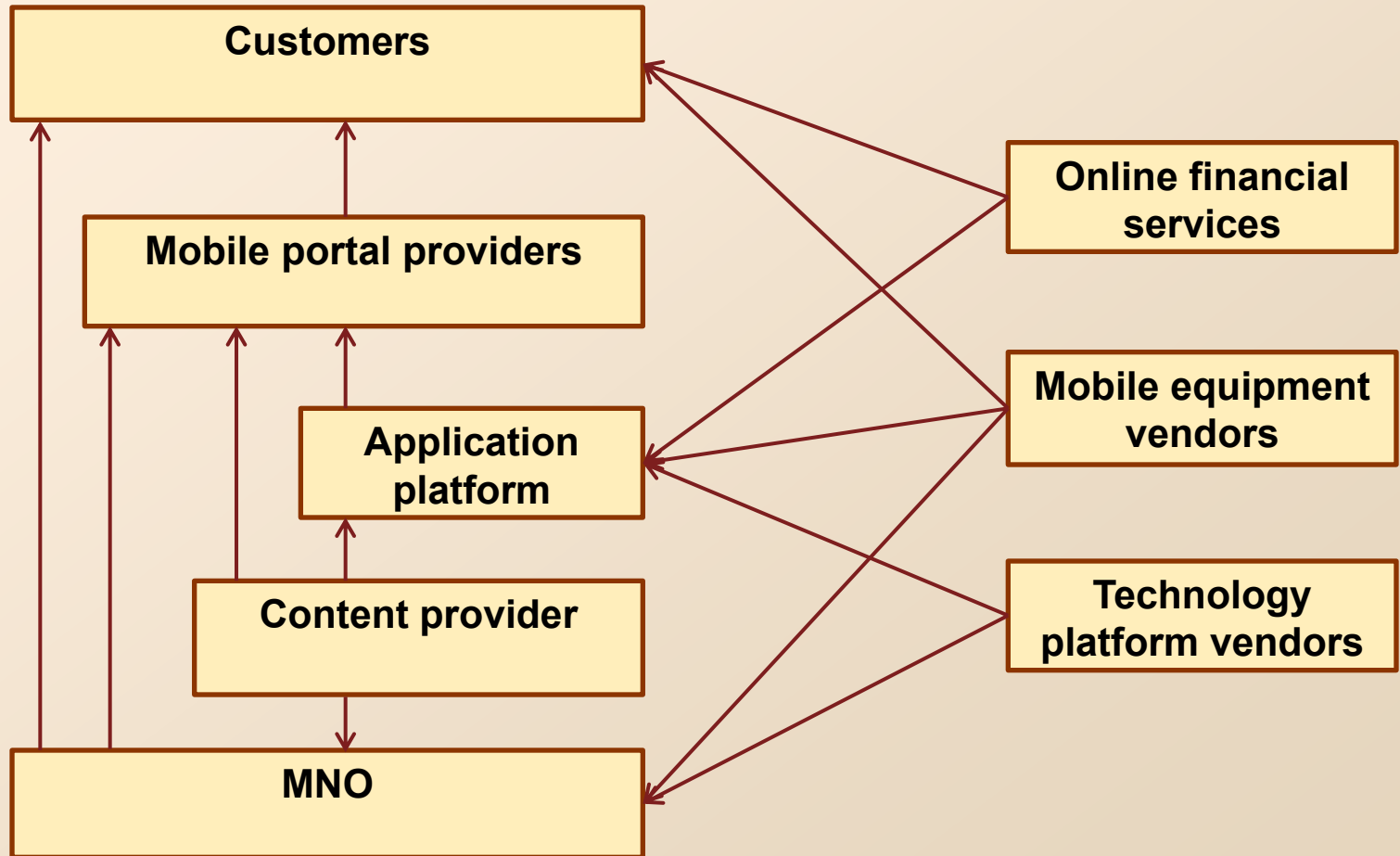
Data services: results

- Accesses to the internet from mobile network account for higher and higher percentage (cca 20 % in CZ in 2011)
- There are more and more services based on fast internet connection offered for mobile phones
- Coverage with fast networks (3G) grows steadily

BUT

- Uncertainty of „killer application“

Trends in m-commerce: Value chain today



Value chain without fast data transmissions

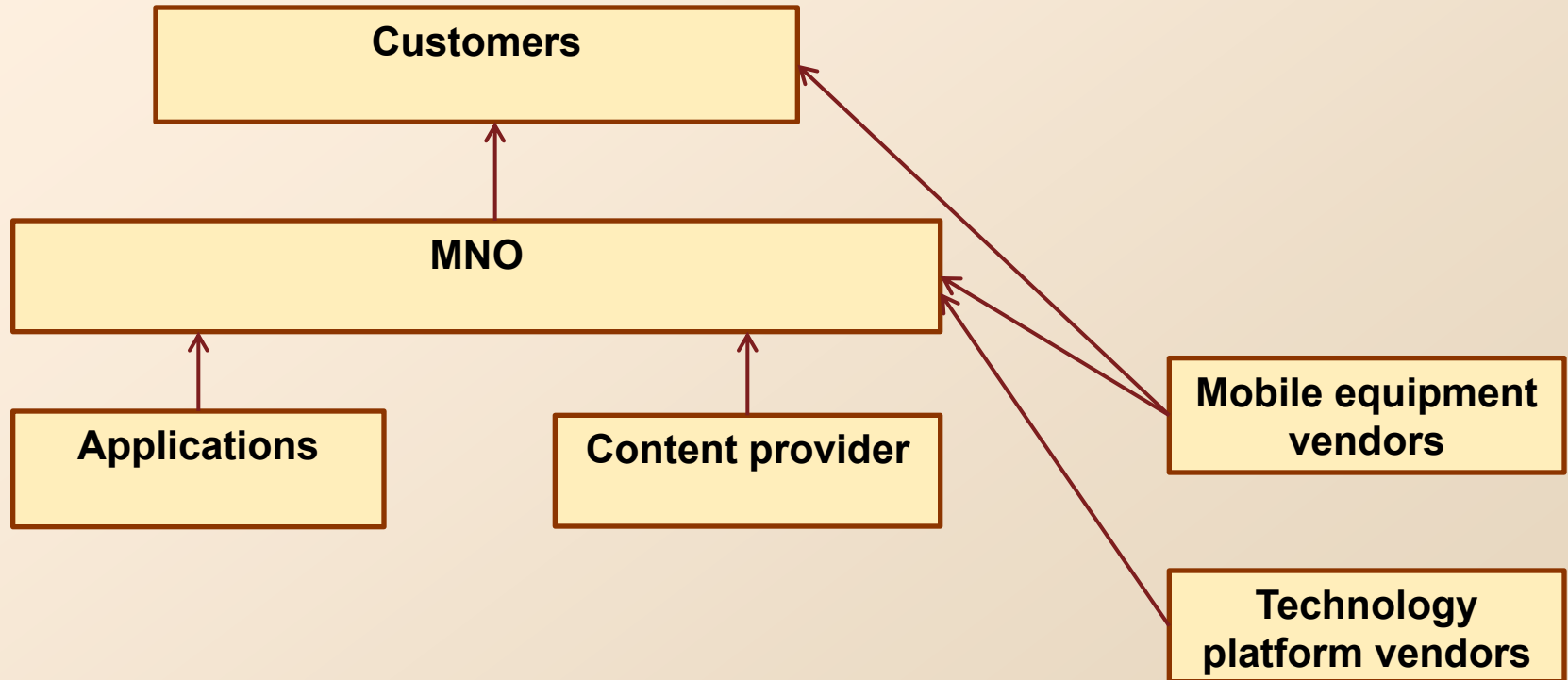
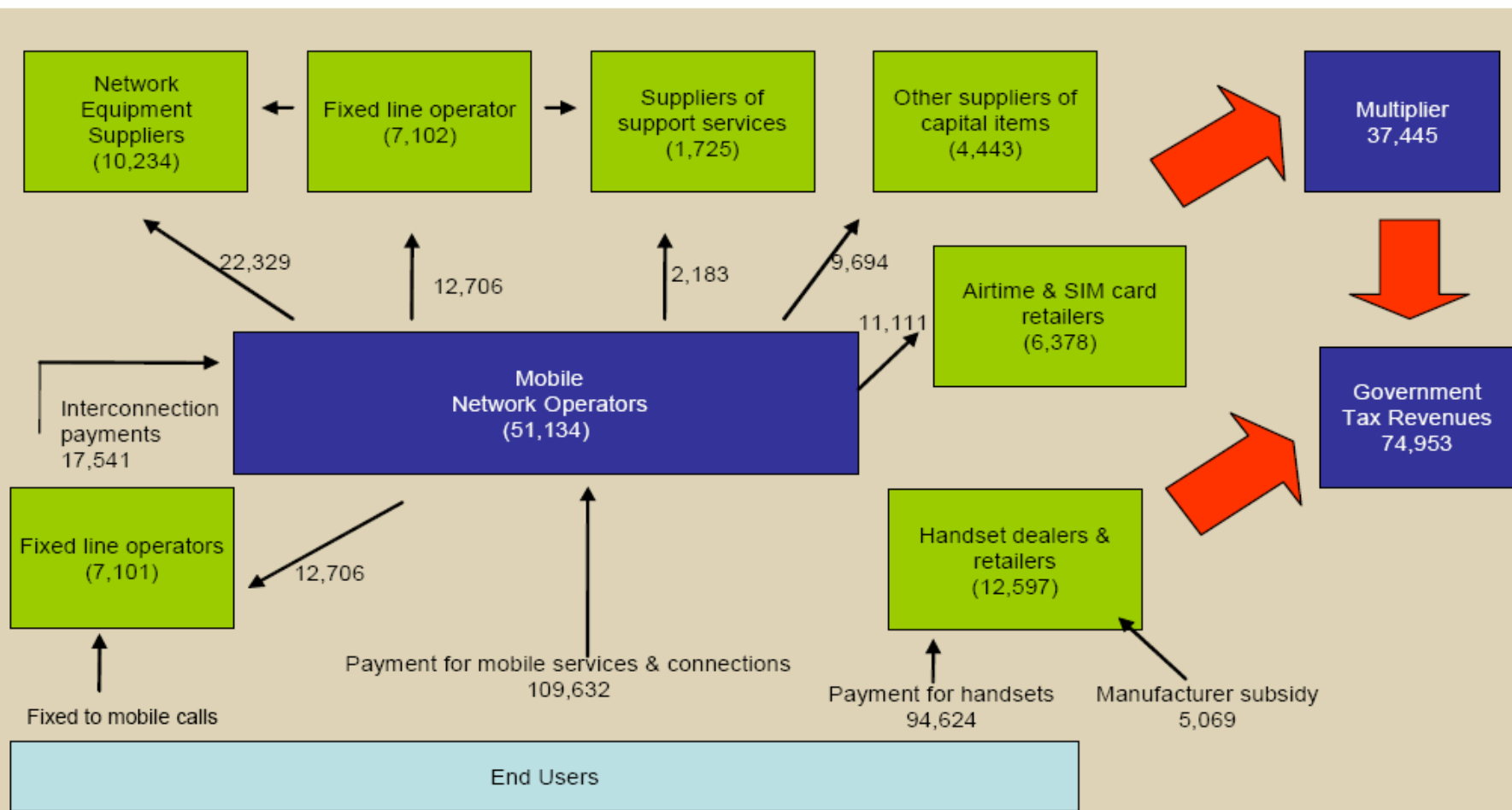




Figure 8: Mobile value chain in Pakistan in 2006 (PKR millions)



Note: Value add is specific to national economy and does not show international value add

Trends in m-commerce: Use of mobile phones

The start of use of mobile phones

Age	Cumulative frequency (%)
13	10,5
14	52,6
15	92,1
16	98,7
17	99

Why and how do people use mobile phones: Social connectivity (Morley, 2003)

Mobile phone (MP) intensifies the social connectivity of the owner. To have MP means to be connected, to be a part of social network, to be available everywhere by everybody.

When do I switch MP off	(%)
Never	69,9
Night	17,8
Other	6,8
Night + school	1,4

76 respondents between 17-18, 2007

Why and how do people use mobile phones: Attitude toward MP

1. If others had not have it, I would not have it too

The determinant here is the social network,
social connectivity

2. I am addicted to MP

Saves time, is personal, not to have it is boring

Why and how do people use mobile phones: MP – strongly personal thing

- Ishii, 2006: MP is not as much issue of mobility as issue of personalization and localization.

50 % of calls are made from home, 40 % from work and only 10 % outside these places

Mobility is matter of place, time, and context



Why and how do people use mobile phones:

Mobility: place

- Physical motion from place to place

Mobility: time

- Results from physical mobility, means accelerating of processes, saving time, flexibility.
- Micro-coordination, softening of time



Why and how do people use mobile phones:

Mobility: context

- Communication face to face has to comply with context: environment, particular situation, mood. Mobile communication frees the participants of this.

Case: SMS vs videocalls

- Does m-communication mean greater or lesser freedom?

Why and how do people use mobile phones: Mobility

- Disconnectivity anxiety (Jim Taylor)
- Feel of safety if in reach of own mobile phone
- Own world in the pocket

Why and how do people use mobile phones: Domestication of MP (Silverstone, Silverstone & Haddon)

- Innovation is a process, not a single event

Assumptions:

- look behind function
- (1) imaginativeness, (2) acquiring,
(3) materialization, (4) transformation



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Thanks for attention