Quasi-Subscribers in the Swedish Mobile Phone Market: The Phenomenon and Determinant Factors

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What is a quasi-subscriber?

- A quasi-subscriber refers to a mobile phone user with multiple subscriptions

- This study views the phenomenon :
  - on a macro level
 - as a diffusion study in the context of Swedish market

Why should we care?

- If you have a subscription, you are subscriber/adopter
- If you have more than one subscription?

Quasi-subscribers ≈ multiple-counting

- Over than 40 countries in the world exceed 100% penetration rate (ITU, 2008)
- Within the next decade most mobile phone market exceed 100 % penetration (the Economist, 2009)
- In 2008, UEA has over 200 % penetration rate !!!

Quasi-subscribers exaggerate the penetration rate

Additional Evidence
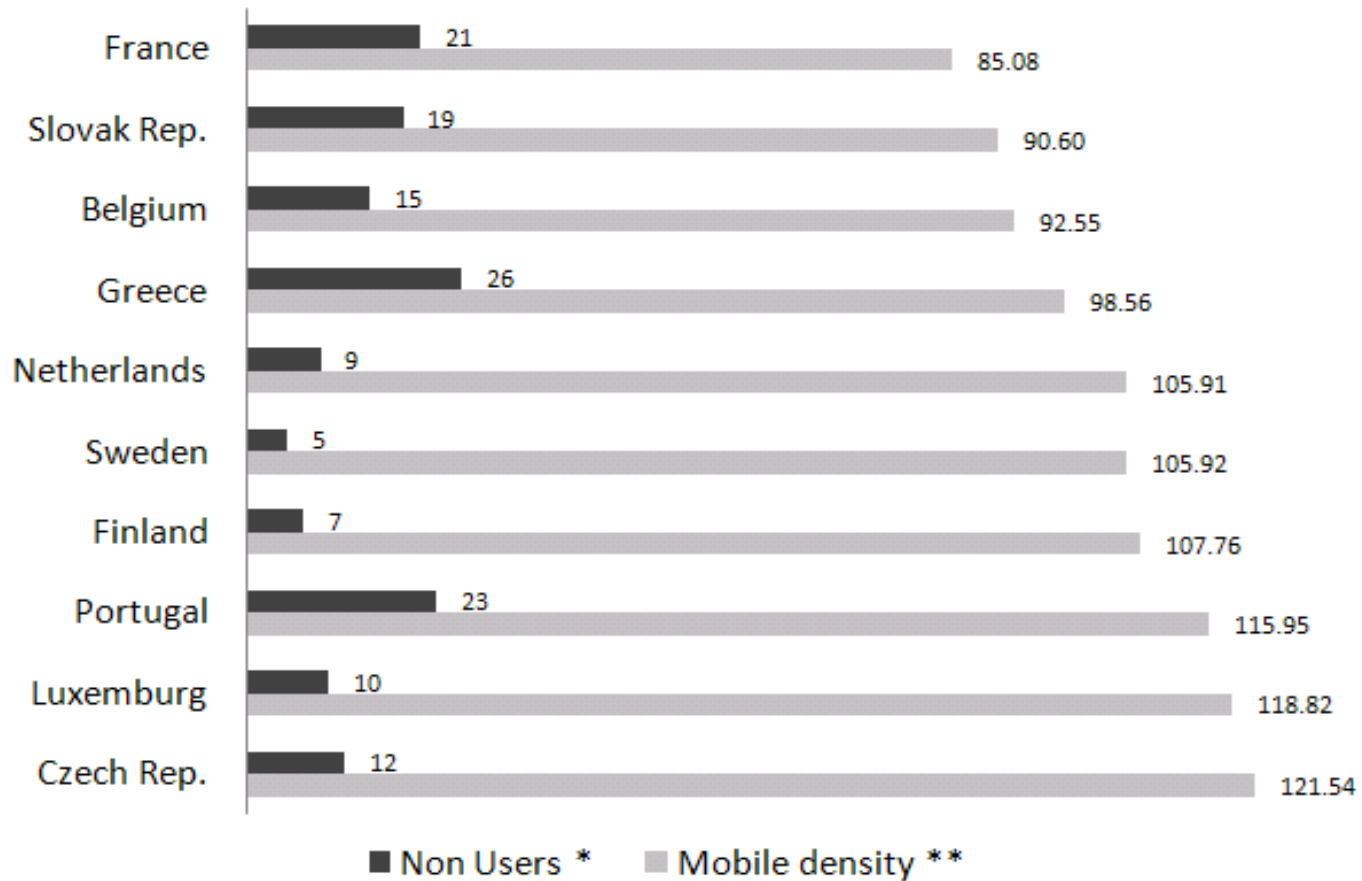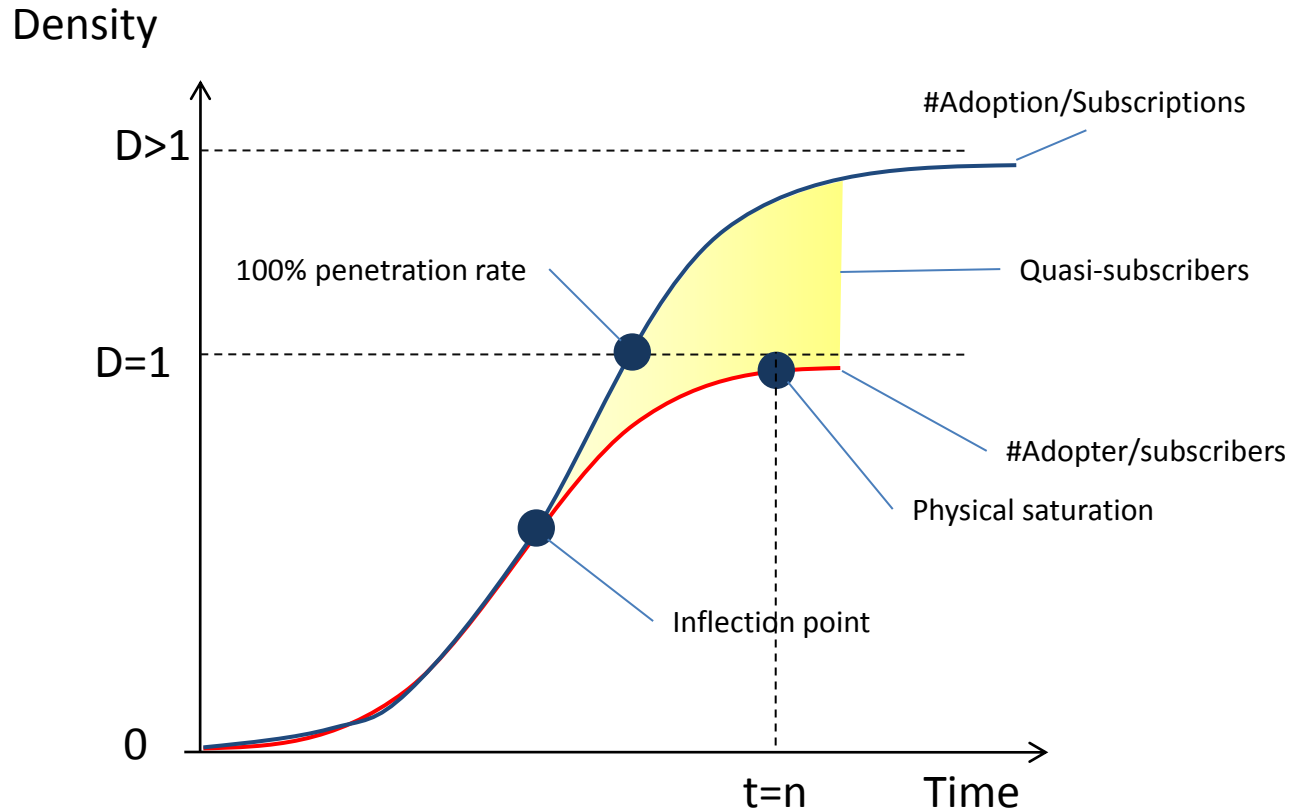

Source: Eurobarometer 2006

Determinant Factors?

- Business subscriptions and subscriptions for family members (Annafari, 2010)

- The use mobile data services, i.e. mobile internet

- Overcoming network limit

- Profit seeking behavior, i.e. On-net call, service bundling, Resell minutes, etc.

- Relevant Studies: Gamboa & Otero (2009), Sutherland (2009), Annafari, Srinuan & Bohlin (2010)

Implication for diffusion studies

- Diffusion of innovation is empirically represented using model and proxies.
  - Economy (Griliches, 1957)
  - Sociology (Ryan & Gross, 1943)
  - Management (Bass, 1969)
- Models: Logistic, Gompertz, Bass, ARMA.
- Proxy: Cumulative number of adopters/subscriptions (penetration rate)

Theoretical Description

Density

D>1

#Adoption/Subscriptions

100% penetration rate

Quasi-subscribers

D=1

#Adopter/subscribers

Physical saturation

Inflection point

0

t=n   Time

Application in the Swedish Market

- Diffusion Model: The logistic model

- Curve fit estimation and Non-linear regression

- Proxies:
  - # Subscriptions (dt*)
    (operator data)
  - # Subscribers (dt)
    (PTS annual survey)
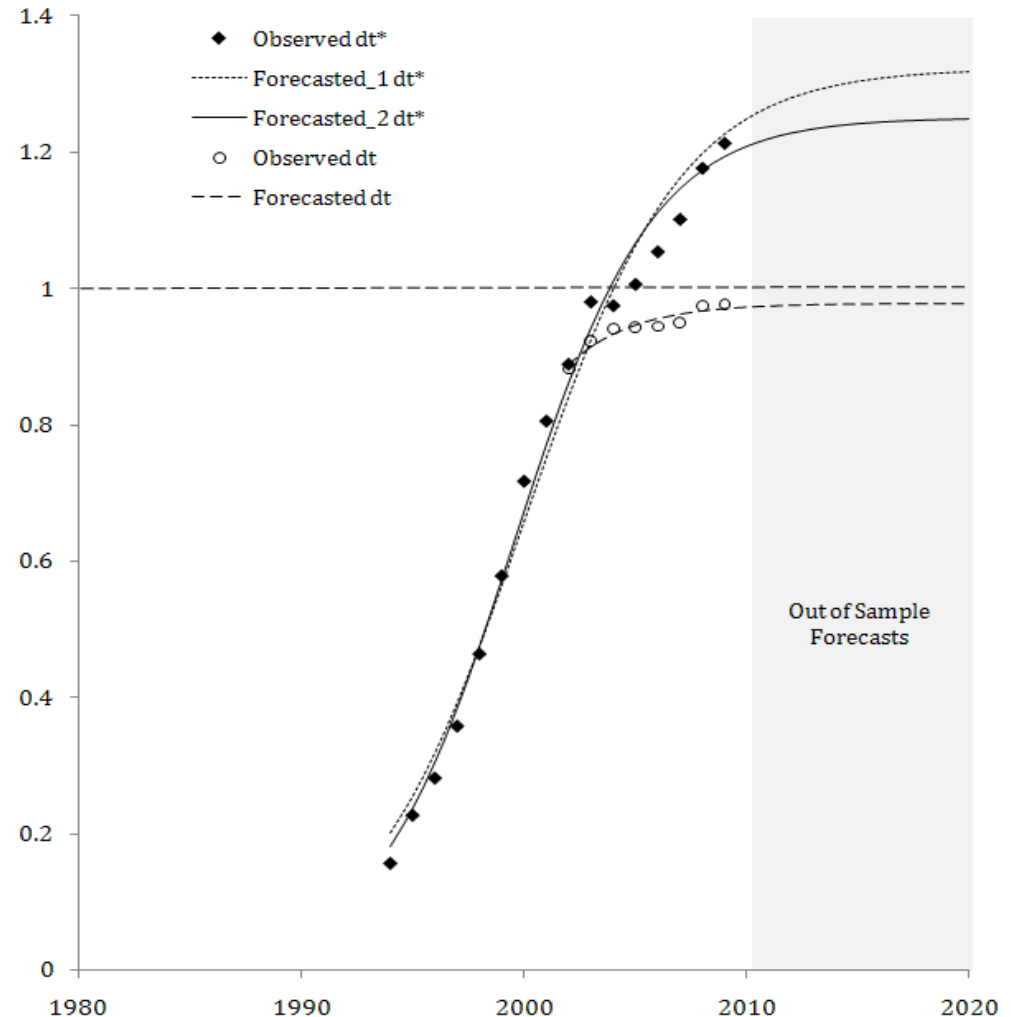
So…

- Mobile phone diffusion should be explained using two different proxies, (Annafari & Bohlin, 2010):
    - Cumulative subscriptions (Total active SIM Cards and handset-bundled subscriptions based on the operator data)
    - Cumulative subscribers (survey sampling data)

Thanks