

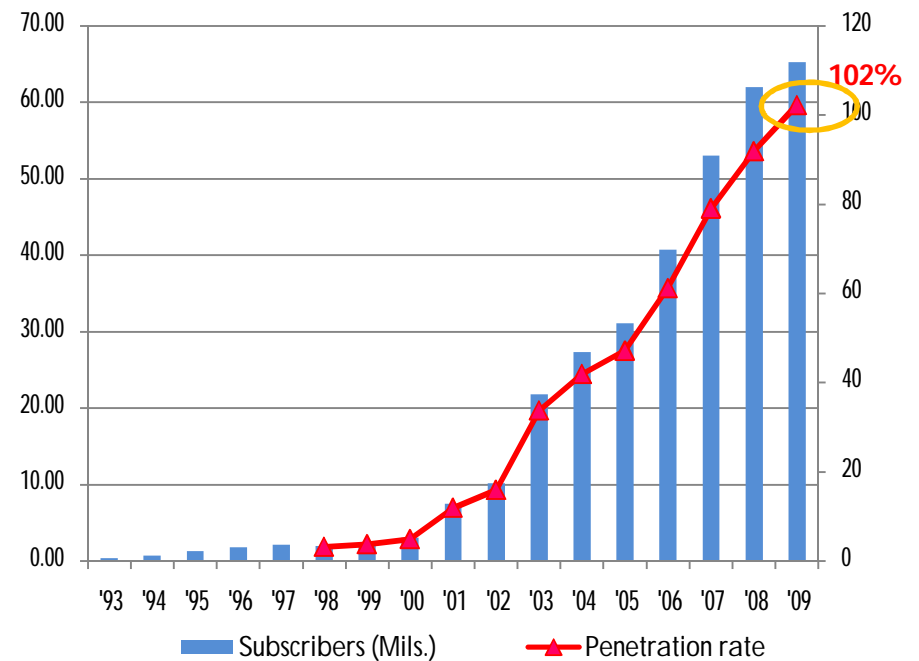
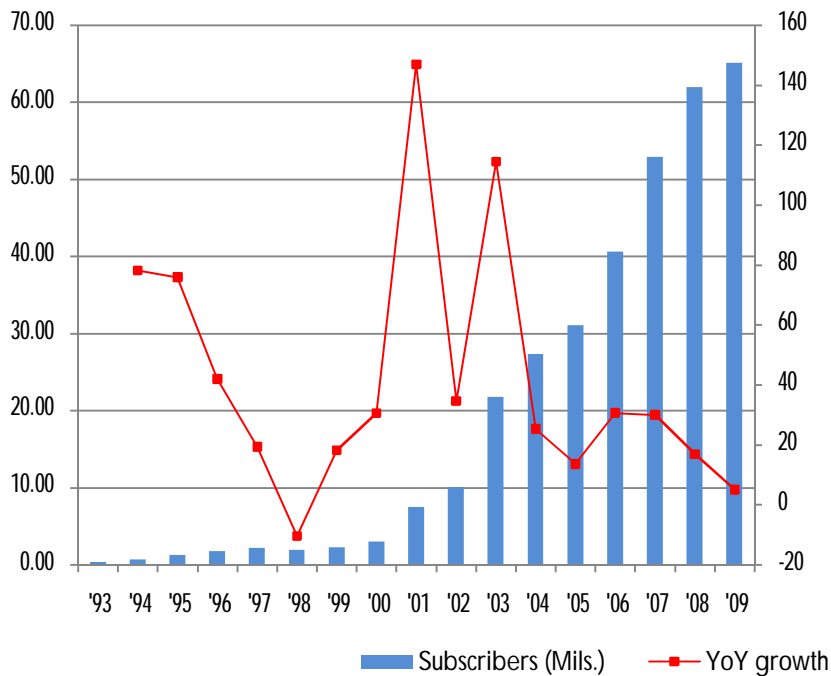
Understanding the switching behavior in the Thai cellular market

Pratompong Srinuan*, Mohammad Tsani Annafari, and Erik Bohlin

Technology and Society, Technology Management and Economics,
Chalmers University of Technology, Gothenburg, Sweden

*Corresponding e-mail: pratompong.srinuan@chalmers.se

Background and motivation

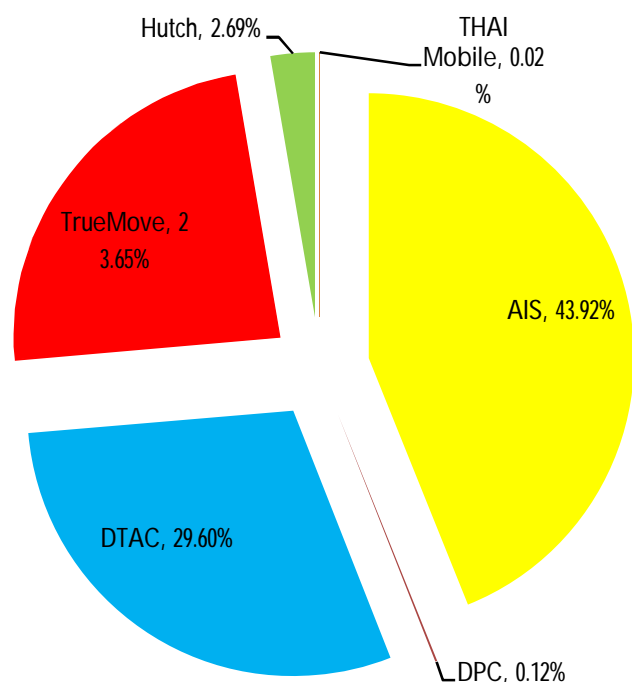


High average growth of adoption of mobile subscribers (42 %) Mobile penetration rate was 102 % by the end of 2009

Potential mobile subscribers have been captured by mobile operators.

Mobile operators will work hard to **retain** their own mobile subscribers as well as **steal** rival's mobile customers.

Background and motivation (II)



Three major mobile network operators which mainly occupy mobile subscribers.

All of mobile operators use price strategy to compete with each others. But the quality of service remain inequal

Larger mobile operator has network coverage to almost 90 percent of population

Smaller mobile operator has developed its network coverage covers only the urban area of every province.

Recently, the debatable regulation in Thailand is the implementation of mobile number portability (MNP).

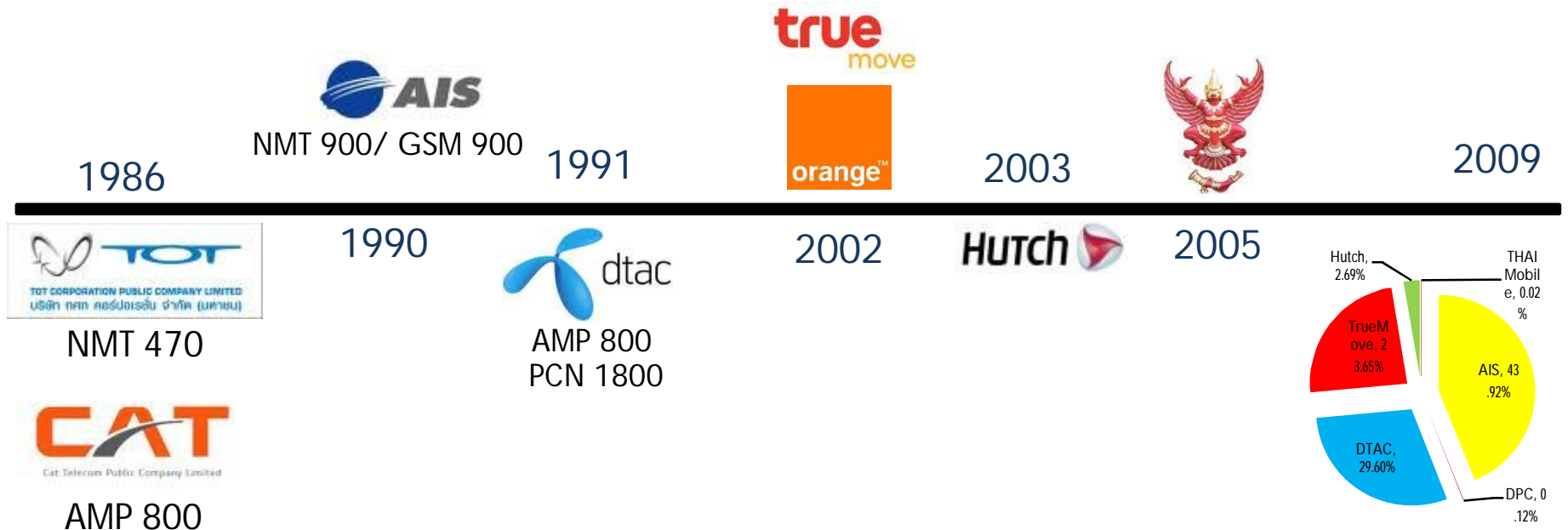
To reduce consumer switching costs since the MNP gives mobile subscribers to remain use the same mobile telephone number while changing mobile operator.

To increase competition in mobile communications market. Raise competition in both price and quality of services.

Research questions

- What are the determinants of switching intention of mobile subscriber ?
- Which mobile operator will gain more benefits from MNP regulation ?
- How much is a mobile subscriber willing to pay for MNP on average?

Thai mobile communications market development



IMEI locking was implemented by AIS and DTAC

Handset subsidy was implemented by TA Orange

DTAC introduced IMEI unlocking

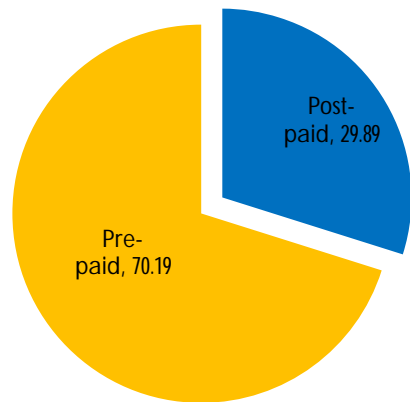
SMS blocking was applied by AIS

AIS refused to let Truemove's customers to roam with its network

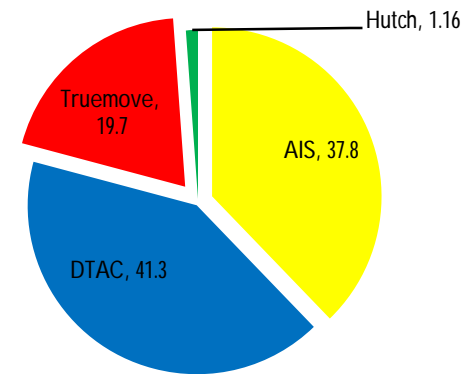
Termination-based price discrimination is introduced by mobile operators

Data (No. of sample 1425)

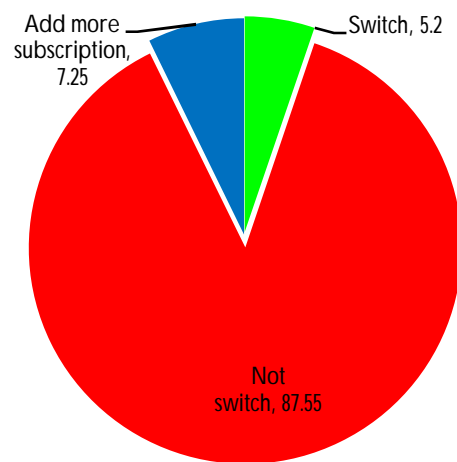
(a) Type of subscription



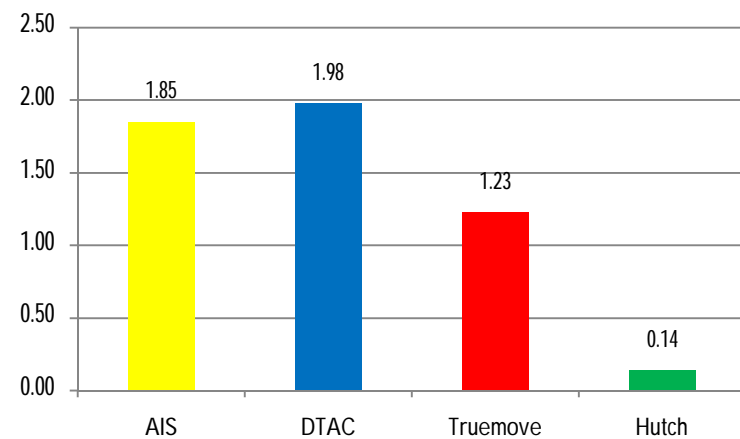
(b) Operators market share



(c) Intention to switch and add subscription



(d) Intention to switch by operators



Econometric model

A binary probit model is used !

$$Prob(\text{switch}|j) = Prob(U_{\text{switch},n} > U_{\text{remain},n})$$

Switch=1 : mobile subscribers intend to switch to others
with in the next six months

Remain =0 :mobile subscribers intend to stay with the current operator

The model is of the form:

$$P_{jn} = F(x'_{jn}\beta)$$

The model: Independent variables

Operator characteristics

Pre-paid subscription

AIS

DTAC

TrueMove

Hutch

Mobile usage expense

Subscriber characteristics

Age

Male

education

Occupation

Monthly income

Internet use

Regional

Estimation results and discussion

Variable	Marginal effect	Std. Err.	z-test	P-value
<i>Operator characteristics</i>				
Prepaid	0.009	0.010	0.930	0.351
AIS	-0.028	0.023	-1.250	0.211
DTAC	-0.029	0.024	-1.210	0.227
Truemove	-0.016	0.019	-0.810	0.420
Mobile usage expense	0.000	0.000	0.340	0.732
<i>Subscribers characteristics</i>				
Age*	-0.002	0.001	-2.720	0.007
Male	0.013	0.009	1.460	0.144
Above undergrad	0.010	0.019	0.540	0.591
Undergrad	0.010	0.010	0.970	0.331
Government officer*	0.046	0.021	2.200	0.028
Private officer	0.023	0.019	1.200	0.231
Self employ**	0.060	0.036	1.650	0.099
Temporary employ	0.040	0.028	1.440	0.150
Income	0.000	0.000	-0.980	0.329
Internet use**	-0.026	0.014	-1.830	0.068
Central region*	-0.042	0.010	-4.040	0.000
North-East region	0.005	0.011	0.480	0.629
Southern region*	-0.040	0.008	-5.240	0.000

Pre-paid subscribers are more likely to switch to other mobile operators.

Subscribers of the mobile network providers, i.e. AIS, DTAC, and Truemove, have higher switching costs than subscribers of Hutch.

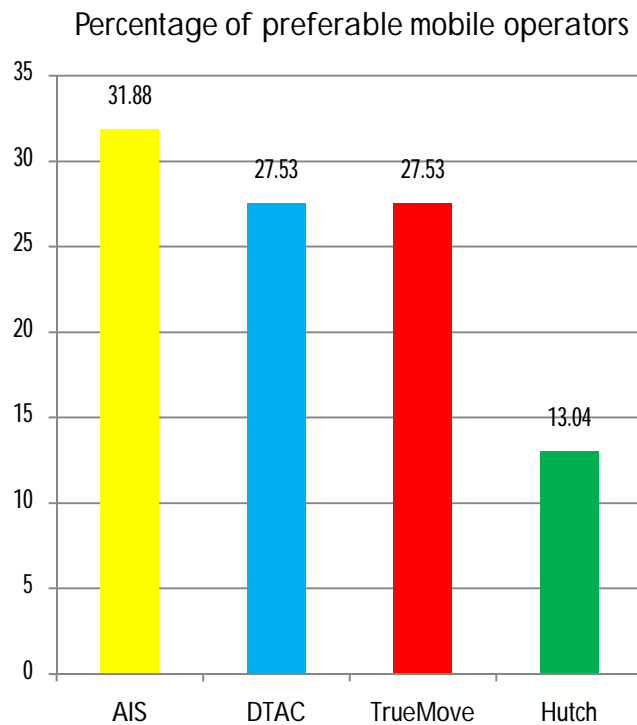
Government officers and the subscribers who have their own business are more likely to switch mobile operators

Elderly subscribers will have less probability for switching mobile operators

Mobile subscribers who usually use internet are less likely to switch to other mobile operator

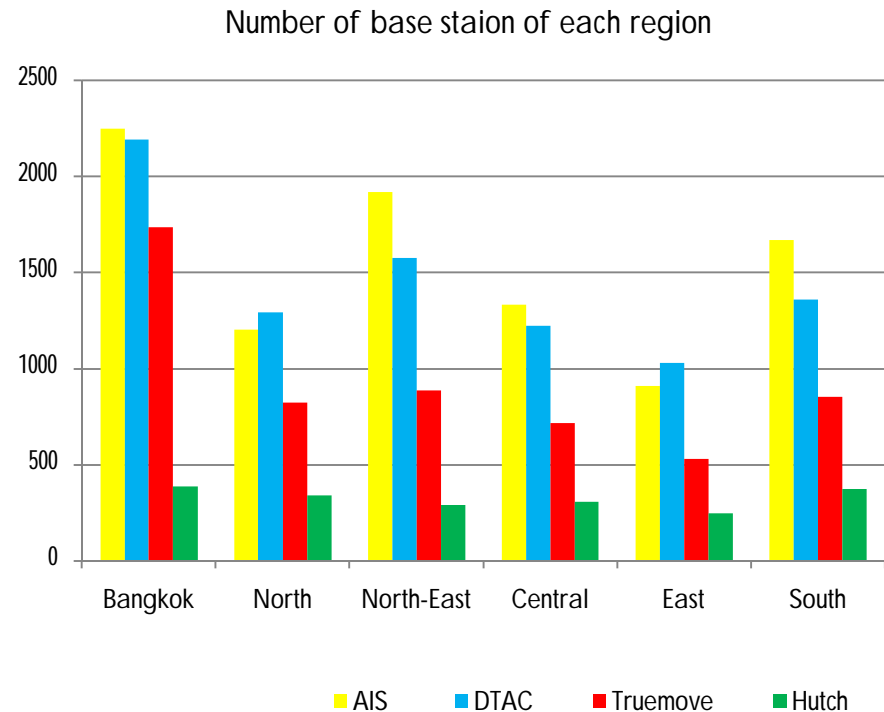
Mobile subscribers who live in central and southern region of Thailand have less probability to switch to other mobile operators

What is the preferable mobile operator and MNP fee?



Higher portion of switching mobile subscribers will change to the largest mobile operator, AIS.

The largest mobile operator, has better network coverage in most of regions in Thailand



This problem will be more serious if the Thai telecom regulator implements MNP into the mobile communications market.

Preferable MNP fee is 85 THB per time, but MNP fee that NTC will propose is 300 THB

Conclusion and policy recommendations

- ❑ Different mobile subscribers confront with different level of switching costs, Subscribers of the largest mobile operator receive highest switching costs
- ❑ Largest mobile operators will gain more switching subscribers than smaller operators
- ❑ MNP implementation would help to lower switching costs of smaller mobile operators rather than larger operators

Conclusion and policy recommendations

- ❑ Subscribers of smaller operator would move to the larger mobile operators to get better quality of network coverage
- ❑ Implementing MNP without national mobile roaming regulation would lead to worse result for the smaller mobile operators.
- ❑ Telecom regulator should consider national mobile network roaming regulation to be implemented
- ❑ This regulation would give an equality of network coverage to smaller operators since they can be able to compete with larger mobile operators

“Nothing fun to be the regulators if they don’t regulate”
... Anonymous

Questions and comments are welcome!

Thank you for your attention