

Mobile Number Portability: Lessons from international experience

Rohan Samarajiva

(drawing from research by former Research Manager Tahani Iqbal)

Suva, June 19, 2013



This work was carried out with the aid of a grant from the International Development Research Centre, Canada and the Department for International Development, UK.

IDRC
International Development
Research Centre



CRDI
Centre de recherches pour le
développement international

DFID Department for
International
Development

Definition

- MNP allows subscribers to change mobile operators but retain their phone numbers
 - In a minority of countries, the scheme extends to fixed numbers as well
 - In some countries, limited forms exist (e.g., not nationwide; prepaid-to-prepaid only)

Theoretical justification

- Competition allows consumers to signal suppliers when price/quality is unsatisfactory
- When consumers depart, supplier will have to take remedial action or exit market
- MNP reduces costs of changing suppliers, thereby improving disciplinary effect of competitive market
- MNP should improve quality-price performance

Are there flaws?

- Albert Hirschman analyzed service-quality problems in *Exit, Voice and Loyalty*
 - Low-quality equilibrium can emerge if there is no significant difference in quality among suppliers
 - Signal is muffled when number of customers leaving = number of customers joining
- Suppliers exit markets in theory, but not in telecom industry

“No significant difference in quality among suppliers”

- Unless regulator can come up with a good solution to the above problem, MNP may not have the desired effects
 - Appears this is the case in India
 - Over 28 months 89.7 million porting requests (around 1/10th of total number of active SIMs) had been received
 - Lots of customers moving around, but no one is losing market share and quality is not improving

Usual rationale

- MNP is available in most developed telecom markets
- Interest growing in emerging markets
 - E.g., Pakistan in 2006; India in 2010; Colombia in 2012; Nigeria in 2013
 - Maldives rejected in 2007 but has decided to implement
- Seen as remedy for “club effects” caused by high on-net/off-net differentials & affinity group packages
- What has to be considered in developing countries/small economies?
 - Large prepaid segment; significant multiple SIM use
 - Problems of scale

Some key questions to consider

How does one measure the 'success' of MNP?

What are the criteria for economic feasibility of MNP?

What other issues have to be thought about before implementing MNP?

Pros & cons of implementing MNP

	Merits	Demerits
Subscribers	Lower switching costs	Loss of information contained in operator-specific numbers
	Suppliers will treat them better	Hassle of porting process; Missed calls/opportunities during porting
		Implications for differential on-net and off-net prices & affinity group price packages
Operators	Opportunity to gain subscribers	Pressure to retain subscribers
	Level playing field for new entrants	Implications for on-net & off-net pricing schemes and affinity-group packages
		Advertising and investment costs
Regulator	Improved competition	Technical expertise required
	Lower prices and better QoS → satisfied subscribers	Database operator may not be viable

What is measure of MNP success?

- Ultimately, has to be improved customer satisfaction
- In the short term
 - low porting rates may mean failure
 - High porting rates = cost-recovery = increase churn/Improve competition = MNP success
 - High porting rates
 - 6% and over
 - Hong Kong, South Korea and Australia
 - How?
 - Low porting time
 - Zero or no porting charges
 - Subscriber awareness
 - Entrance of disruptive operators

However, many have failed...

- India has high porting demand but quality is not improving
- Low porting rates = economic failures = MNP failure
 - Japan, Singapore, The Netherlands, Ireland, Malta and UK
- Why?
 - High porting charges (though Singapore is almost free)
 - Lengthy porting times
 - Long-winded applications
 - Handset subsidies that lock in customers
 - Service quality the same

Economic feasibility

- Someone has to pay
- Who should pay depends on answer to who is beneficiary
 - If porting customer, she/he should pay
 - If recipient network, it should pay (customer acquisition cost)
 - If all customers/sector, regulatory agency should pay
- Since costs are mostly fixed, not so easy to allocate costs to individual customer
- If a company is entrusted with management of MNP database, its viability will depend on assumptions re porting rate → porting charge
 - If set too high, porting rate may go down → revenues will decrease → MNP company will have to be bailed out

Issues to consider

- Where to obtain: Technical expertise
 - Network re-routing
 - Database maintenance
 - Careful about taking advice from those who want to operate the MNP entity
- Who should pay?
 - How much should those requesting porting pay?
 - Subsidies if any?
- Operator codes cease to be informative
 - Implications for on-net/off-net pricing
 - Implications for affinity group plans
- Is regulator ready to address complaints?
 - Efforts to frustrate the policy are likely unless regulator is alert

Framework for assessing MNP

	Criteria	Measurement	Why
Subscribers	Demonstrated demand for MNP	Market size, consumer behaviour	Gives an indication of potential demand for MNP
Operators	Competition	HHIs	Helps to ascertain how much impact MNP may have on the market
Regulatory body	Independence and/or effectiveness	LIRNEasia's Telecom Regulatory Environment (TRE) tool	Drives implementation, ensuring a win-win situation for both subscribers and operators

MNP in two big countries and one small one

	Pakistan	India	Maldives
Subscribers Demonstrated demand for MNP	145 m population; 34.5 m mob subs	1.18 b population; 471.73 m mob subs	396,000 population; 457,770 mob subs
Operators Competition (HHIs)	0.33	0.16	0.66
Regulatory body (LIRNEasia TRE score, 2008)	3.4	3.0	3.5

Pakistan's experience

- Porting rates between 2-3% in first few years; picked up later
- Postpaid porting 0-1% only
- Porting time of 4 days
- Reasons for porting: network quality, coverage and value added services (VAS)
- Regulators deem it a success
 - Improved competition, QoS → falling subscriber complaints
- Operators say results not as hoped
 - “But it could have been worse”
 - Lack of awareness among subscribers
 - But helped Telenor get to 2nd place in market share

Pakistan	
Subscribers Demonstrated demand for MNP	145 m population; 34.5 m mob subs
Operators Competition (HHIs)	0.33
Regulatory body (LIRNEasia TRE score, 2008)	3.4

India's experience

- Teledensity is 40%
- 95% prepaid segment
- At the BOP:
 - Multiple SIM use
 - Low number loyalty
 - High reliance on friends-and-family discount packages
- High level of competition
 - Stagnated since 2008
 - ARPUs between US\$ 2-3
- Introduced in stages
 - Now considering national portability

India	
Subscribers Demonstrated demand for MNP	1.18 b population; 471.73 m mob subs
Operators Competition (HHIs)	0.16
Regulatory body (LIRNEasia TRE score, 2008)	3.0

Cautionary lesson from India

- High porting rate is not enough, if quality is bad everywhere
- Some part of demand for porting driven by operators withdrawing from regions because of licensing problems

Nigerian Minister at MNP launch, April 2013

- “That doesn’t stop the quality of service issue because we have a nationwide quality of service issue at this moment. We are doing a number of other things to work on quality of service issues, making it easier for our network operators to rollout infrastructure without the bottlenecks of multiple taxes and multiple regulation, the cost of Right of Way (RoW), the vandalism of ICT infrastructures among others,”

Maldives experience

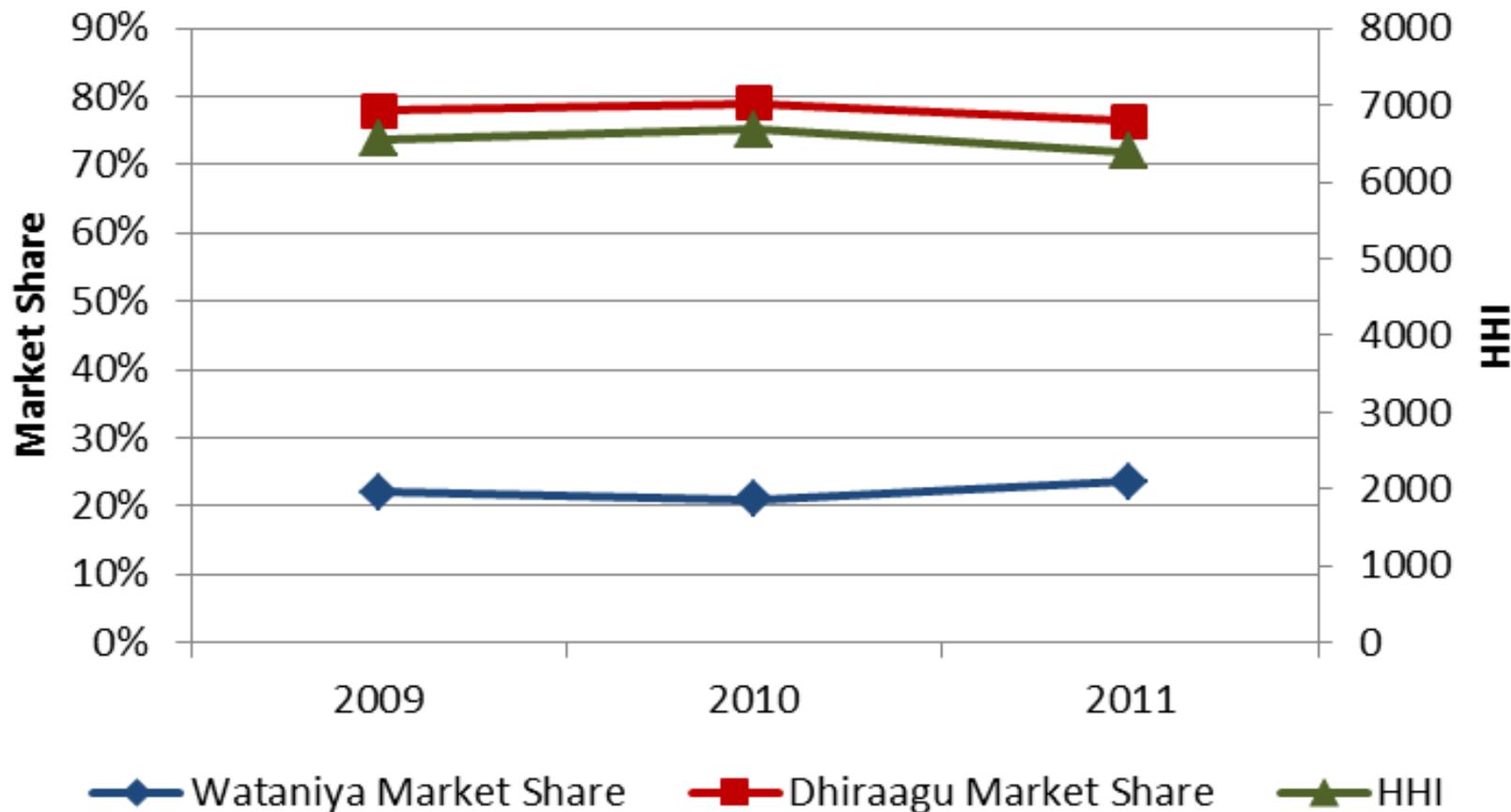
- Small population
- SIMs > population
- 90% prepaid segment
 - High multiple SIM use
 - Low number loyalty
- Low level of competition
 - Only two operators
 - ARPUs are high US\$12-13
- Decided against MNP in 2007 but changed in 2011-12; implementation has been slowed

Maldives	
Subscribers Demonstrated demand for MNP	396,000 population; 457,770 mob subs
Operators Competition (HHIs)	0.66
Regulatory body (LIRNEasia TRE score, 2008)	3.5

Lessons from Maldives

- Worth watching, to see how it works
- Biggest problem will be setting the porting charge
 - Too high and revenue will be depressed
 - Too low and revenue will be inadequate
- Will CAM subsidize?
- What is the real problem in the Maldives? Is MNP the solution to the problem?
 - Dhiraagu's market share is high and holding
 - On-net/off-net differential was high → led to multiple SIM ownership & challenger equalizing its on-net and off-net prices

Is MNP a solution to this problem?



Key points

- MNP's beneficiaries are not foreordained
 - Wrong to assume smaller player will benefit
 - In many countries, bigger players have gained customers
- MNP has costs
 - Large fixed costs, so size does matter
 - Who bears the costs is a key question: customer who wants to port? Receiving operator?
 - If customer acquisition costs known, recipient operator can be charged that amount
- Focus on transaction costs as much as on payments
 - Too much hassle and porting will decline
 - Regulator must be alert re actual implementation