Emerging Asia's path to the "Internet Economy": Mobile 2.0

Rohan Samarajiva
www.LIRNEasia.net; rohan [at] lirneasia.net
Expert Forum on Mobile 2.0
Islamabad, 26 April 2010
The problem
After all these years: Internet use & awareness among the poor in Indo-Gangetic Plain in 2008, acc. to large-sample survey

Internet use (% of BOP teleusers)

<table>
<thead>
<tr>
<th>Country</th>
<th>I haven't heard about the Internet</th>
<th>I have heard about the Internet but I haven't used it</th>
<th>Less than once a month</th>
<th>Once a month</th>
<th>2-3 times a month</th>
<th>Once a week</th>
<th>2-3 times per week</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>56%</td>
<td>43%</td>
<td>23%</td>
<td>74%</td>
<td>10%</td>
<td>20%</td>
<td>70%</td>
<td>57%</td>
</tr>
<tr>
<td>Pakistan</td>
<td>57%</td>
<td>41%</td>
<td>63%</td>
<td>36%</td>
<td>23%</td>
<td>10%</td>
<td>57%</td>
<td>57%</td>
</tr>
<tr>
<td>India</td>
<td>63%</td>
<td>36%</td>
<td>23%</td>
<td>74%</td>
<td>10%</td>
<td>20%</td>
<td>57%</td>
<td>57%</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>23%</td>
<td>74%</td>
<td>10%</td>
<td>70%</td>
<td>57%</td>
<td>20%</td>
<td>36%</td>
<td>36%</td>
</tr>
<tr>
<td>Philippines</td>
<td>10%</td>
<td>57%</td>
<td>20%</td>
<td>23%</td>
<td>43%</td>
<td>41%</td>
<td>36%</td>
<td>36%</td>
</tr>
<tr>
<td>Thailand</td>
<td>20%</td>
<td>57%</td>
<td>23%</td>
<td>43%</td>
<td>41%</td>
<td>36%</td>
<td>36%</td>
<td>36%</td>
</tr>
</tbody>
</table>

Among BOP teleusers

<table>
<thead>
<tr>
<th>Country</th>
<th>Use the Internet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>0.6%</td>
</tr>
<tr>
<td>Pakistan</td>
<td>2.2%</td>
</tr>
<tr>
<td>India</td>
<td>0.8%</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>3.2%</td>
</tr>
<tr>
<td>Philippines</td>
<td>20.7%</td>
</tr>
<tr>
<td>Thailand</td>
<td>23.0%</td>
</tr>
</tbody>
</table>
What is the Internet?
Is it this? And this only?
Alternatively, is the Internet a metamedium that allows one to engage in . . .

- Communication in multiple forms, synchronous/asynchronous, one-to-one/one-to-many, etc.
- Information retrieval
- Publication
- Transactions (including payments), and
- Remote computing??

And does using some of these functions over distance, using electronic means, constitute participation in the Internet Economy?
Poor are participating, according to teleuse@BOP survey . . . .

- If the answer is yes, millions of poor people in the Indo-Gangetic Plain are beginning to participate in the Internet Economy through the mobile networks and handsets
  - Inchoate, but understandable as services are just beginning to be offered & business models are being worked out
  - The dongle/netbook surge had not yet occurred in 2008
10,000-sample, 6-country Teleuse@BOP survey in 2008 found that most poor people had . . .

**Used a phone in the last 3 months**

<table>
<thead>
<tr>
<th>Country</th>
<th>Bangladesh</th>
<th>Pakistan</th>
<th>India</th>
<th>Sri Lanka</th>
<th>Philippines</th>
<th>Thailand</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of BOP (outer sample)</td>
<td>95%</td>
<td>96%</td>
<td>86%</td>
<td>88%</td>
<td>79%</td>
<td>77%</td>
</tr>
</tbody>
</table>

**Used a phone in the last week**

<table>
<thead>
<tr>
<th>Country</th>
<th>Bangladesh</th>
<th>Pakistan</th>
<th>India</th>
<th>Sri Lanka</th>
<th>Philippines</th>
<th>Thailand</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of BOP (outer sample)</td>
<td>82%</td>
<td>66%</td>
<td>65%</td>
<td>77%</td>
<td>38%</td>
<td>72%</td>
</tr>
</tbody>
</table>

Caused by SMS reliance
Among non-owners, ~80% could get to a phone in under 5 minutes in 2008.

Most non-owners walk to the nearest phone.
Clearly, success has been achieved with mobile voice in South Asia

• How has this region which has a large concentration of poor people (world’s largest is in the Indo-Gangetic Plain), achieved this?
  – Despite or because of policy and regulatory actions?
• How can the lessons be applied to Internet access?
Budget Telecom Network Business Model
How were this many poor people connected electronically?

- “Budget Telecom Network Model” that allowed South Asian telcos since 2005-06 to make excellent (if highly volatile) returns by serving “long-tail” markets of poor people by
  - Dramatically reducing transaction costs primarily through prepaid
  - Allowing poor people to pay for services when they need it and when they have money (as opposed to fixed monthly payments)
  - Controlling operating expenses through business-process innovation
  - Focusing on revenue-yielding minutes rather than ARPU’s

- Akin to Budget Airline Model that allows Air Asia to make profits while conventional airlines flounder

- Downsides
  - Patchy quality of service for consumers
  - Volatile returns; increased risks for suppliers
Total cost of mobile ownership in 77 emerging economies

Monthly TC0 by country

Average 10.88 US dollars

Source: Nokia Research 2009
Extending BTNM to broadband
Investment, above all

• Mobile voice success was achieved because the necessary conditions were created for massive investment in network buildout

• Building networks capable of broadband is not just incremental; it is the building of an overlay network that requires massive investment, but
  – Not enough cashflow from commodity voice business
  – Governments have gotten greedy and are extracting lots of taxes
  – Great Recession (tempered by Arab & other funds seeking non-US locations)
  – Regulation has become politicized with higher profile
  – In many countries, license renewal uncertainties are affecting investment
What policymakers & regulators can do: Leverage BTNM for public objectives

• Market entry and spectrum management, including refarming, have to be given highest priority; uncertainty caused by license terms ending needs to be reduced
• More emphasis on availability of, and wholesale access to, “fat pipes” than termination rates per se
• Attention to anti-competitive practices, especially vertical price squeeze
• Old style price regulation to be replaced by forms of forbearance, if necessary bounded to address competition concerns
• Gentle on Quality of Service (QOS) regulation
• Phase out universal-service levies and rationalize taxes
What operators can do: Prepaid “sachet” pricing

• Innovative pricing
  – Same as with voice and shampoo, poor people need to be able to pay when the need arises and when money becomes available
  – Broadband use in HSPA+ networks, where the relation between the base station and users is in any case not fixed is conducive to this form of pricing
  – Of course, sachet pricing can include “buckets” of minutes, MB, etc., and need not be seen as a taxi meter

• Be hospitable to applications
What applications providers can contribute: New services/applications

- Today CellBazaar can only do search; if payment policy firmed up they can add payments; if postal system improved they can start delivery, etc.
Mobile 2.0

• The mobile is the path that will take most of our people to the Internet, if policy makers, regulators, operators and applications providers all do their part