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MOBILE TELEPHONY: RURAL INDIA RINGING WITH OPPORTUNITIES

With mobile penetration approaching saturation in urban India, mobile operators in the country are eying rural India as the next area for their growth. The mobile market in rural India has significant potential with number of subscribers anticipated to grow at a CAGR of around 32 per cent between 2009 and 2012.

Competition in mobile telephony has caused prices to drop and calls across India are one of the cheapest in the world. India is a huge market and none of the service providers can dare to ignore its potential. That is why the Indian mobile service provider industry has been growing by leaps and bounds for the last decade.

India, with about 464.82 million mobile phone connections (as of June 2009), is the third largest telecommunication network in the world and the second largest in terms of number of wireless connections. For the past decade or so, telecommunication activities have gained momentum in India. Efforts have been made both by governmental as well as non-governmental platforms to enhance the infrastructure. The idea is to help modern telecommunication technologies serve all segments of India's culturally diverse society, and to transform it into a country of technologically aware people.

A large population, low telephony penetration levels, and a rise in consumers' income and spending owing to strong economic growth have helped make India the fastest-growing telecom market in the world. The first and largest operator is the state-owned incumbent BSNL, which is also the seventh largest telecom company in the world in terms of its number of subscribers. BSNL was created by corporatisation of the erstwhile Department of Telecommunication Services (DTS)—a government unit responsible for provision of telephony services. Subsequently, after the telecommunication policies were revised to allow private operators, companies such as Bharti Airtel, Tata Indicom, Vodafone, MTNL, Idea Cellular, Vodafone and Loop Mobile entered the space. However, rural India still lacks strong infrastructure.

Mobile telephony growth over the years

India has become one of the fastest-growing mobile markets in the world, and is the world's second largest mobile market. Mobile services were commercially launched in August 1995 in India. In the initial five-six years, the average monthly subscriber additions were 50,000 to 100,000 only and the total mobile subscribers base in December 2002 stood at 10.5 million. However, after a number of proactive initiatives were taken by the regulator and licensor, monthly mobile subscriber additions increased to around two million in the years 2003-04 and 2004-05.

Although mobile telephones followed the New Telecom Policy 1994, growth was tardy in the early years because of the high price of handsets as well as the high tariff structure of mobile telephones. With the New Telecom Policy in 1999, the industry heralded several pro-consumer initiatives. Mobile subscriber additions started picking up. The number of mobile phones added throughout the country in 2003 was 16 million, followed by 22 million in 2004, 32 million in 2005 and 65 million in 2006. As of January 2009, total mobile phone subscribers numbered 362 million, having added 15 million during that month alone.

India ranks second in mobile phone usage to China, which had 650 million users as of January 2009. Currently, the Indian telecommunication market is valued at around \$100 billion (Rs 4000 billion). Two telecom players dominate this market—Bharti Airtel with 27 per cent market share and Reliance Communication with 20 per cent along with other players like BSNL (Bharat Sanchar Nigam Limited) and AT&T.

The initial growth of the mobile market came from the advanced markets in Western Europe, and when these reached saturation, the emerging markets of Asia Pacific led the second phase of market proliferation. Today, Latin America and Africa are driving the mobile market's growth with Asia Pacific. China and India will add another billion plus subscribers just by themselves in the six-year period from end-2008 to end-2014. China is still the world's largest market, but India is growing at more than double the CAGR. By end of 2014, worldwide mobile subscriptions will exceed 6.3 billion.

Telecommunication is lifeline of the rapidly growing information technology industry. Internet subscriber base rose to 6.94 million in 2005-06. Of this, 1.35 million were broadband connections. More than a billion people use the Internet globally. The total revenue in the telecom service sector was Rs 867.20 billion in 2005-06 as against Rs 716.74 billion in 2004-05, registering a growth of 21 per cent. The total investment in the telecom services sector reached Rs 2006.60 billion in 2005-06, up from Rs 1788.31 billion in the previous fiscal.

In March 2008, the total GSM and CDMA mobile subscriber base represented a nearly 50 per cent growth over previous year. In April 2008, the Indian Department of Telecom (DoT) banned the usage of unbranded Chinese mobile phones that didn't have International Mobile Equipment Identity (IMEI) numbers, because they pose a serious security risk to the country. Mobile network operators therefore planned to suspend the usage of around 30 million mobile phones (about 8 per cent of all mobiles in the country) by April 30.

Table I

Mobile Subscribers in India

Operator	Subscriber base
Bharti Airtel	99,549,208
Vodafone Essar	74,080,707
BSNL	53,598,591
Idea Cellular	41,243,253
Aircel	20,685,711
MTNL	4,568,269
BPL	2,256,862
Spice Telecom (has changed to Idea)	4,235,023
Reliance Communications	77,223,264
HFCL Infotel	382,602
Sistema Shyam	936,189
Tata Teleservices	36,486,763
All India	**415,246,442**

Rural market emerging fast

The Indian mobile market has continued to witness rapid increase in its subscriber base over the past few years, largely due to the declining mobile tariffs and availability of low-cost handsets in the country. The country saw average addition of ten subscribers per month to its mobile subscriber base during 2008 with penetration approaching satu-

Table II

Mobile Subscriber Base Over the Years

Year	Subscriber base (million)
1998 March	0.9
1999 March	1.2
2000 March	1.9
2001 March	3.6
2002 March	6.4
2003 March	13.0
2004 March	33.7
2005 March	52.2
2006 March	90.1
2007 March	166.1
2008 March	261.1
2008 December	346.9

Source: Telecom Regulatory Authority of India (TRAI) Database ration in urban India. With this, mobile operators in the country are now eying rural India as the next area for their growth. Meanwhile, a number of mobile handset manufacturers have been working to cover the untapped rural mobile market, which will be a major driver for the Indian mobile market in the coming years.

The mobile market in rural India has significant potential with the number of subscribers anticipated to grow at a CAGR of around 32 per cent during 2009 to 2012. The success *mantra* for the rural mobile market in India lies in the operators' service pricing models coupled with the availability of low-cost handsets that support affordable access for rural areas. It is forecasted that sales of mobile handsets in rural India will grow at CAGR of around 17 per cent from 2009 to 2012. Availability of low-cost battery-efficient handsets will drive the future sales in this segment.

Mobile users are expected to cross 500 million by 2010 with an addition of 5 to 6 million subscribers every month. Cellular service providers seem to be answering the call of the wild as they are entering the so far ignored rural market. Although a huge market in the urban segment remains tapped, most of the cellular operators have turned towards rural India to broaden their base and reach. So the real growth is expected from this geography in near future.

The low population density in rural areas necessitates more towers of higher altitudes raising the costs further. Language is another problem and there are many dialects that have no alphabet in rural India. To meet these challenges, operators must come up with solutions like simplifying product access, offering customer-centric solutions (like songs, music, hello tunes that are popular) and infrastructure sharing.

Predictions for the Indian Mobile Industry

1. Subscriber growth in India will continue, driven by rural expansion, entry of newer operators, 3G and cheaper handsets.
2. Incumbent operators will face challenges (and opportunities) on four fronts: new operators, mobile number portability, 3G and MVNOs.
3. Focus on value-added services and data will increase in saturated, urban markets.
4. Mobile VAS operators which build direct-to-consumer relationships will start emerging.
5. Flat-rate data plans will accelerate use of the mobile Internet, social media and rich media.
6. Operators and/or handset players will launch AppStores to drive usage, innovation and revenues.
7. Mobile payments and commerce will come into vogue for micro transactions.
8. Companies will create multi-faceted mobile presence to deepen customer relationships and drive permission-based interaction and engagement.
9. The mobile will emerge as the next advertising and marketing medium and be seen as capable of not just mass reach but also allow a high degree of targeting.

Mobile vs fixed-line market share

India's mobile subscriber base has already grown from around 10 million in 2002 to 350 million by the start of 2009. A number of factors have been responsible for this amazing growth, including low tariffs, low handset prices and most notably a highly competitive market created by the government and the regulator.

While GSM technology remains dominant, by early 2009 CDMA was still managing to hang on to a 25 per cent market share. The total mobile market was expanding at an annual rate of close to 50 per cent coming into 2009. With all things considered, the mobile industry should continue its present strong growth for the time being. On the somewhat contentious subject of 3G licences, the delays continued up to mid-2009, by which time the most recent roadblock, a dispute between the Department of Telecommunications and the Ministry of Finance over licence fees, appeared to reach resolution. In the meantime, the two state-owned operators BSNL and MTNL made a start on rolling out their pilot 3G networks.

With fixed-line subscribers at slightly less than 38 million in early 2009, the market has witnessed a modest decline in that particular segment. Growth initially stalled

Table III

GSM and CDMA Subscription

Year	GSM subscribers (million)	GSM annual growth	CDMA subscribers (million)	CDMA annual growth
2000	3.1	94%	–	–
2001	5.05	76%	–	–
2002	10.5	91%	0.8	–
2003	22.0	110%	6.4	700%
2004	37.4	70%	10.9	70%
2005	58.5	57%	19.1	75%
2006	105.4	80%	44.2	131%
2007	180.0	71%	85.0	92%

in 2006 and fixed-line numbers are not expected to pick up again for some time. (In 2005, India's telecom regulator began counting fixed WLL services as 'wireless' and not 'wireline,' meaning that they were absorbed into the mobile statistics and were not able to be separated out any longer as fixed services. This has caused some confusion in the reporting data.) The total telephone subscriber base (mobile and fixed) surpassed 400 million by February 2009, as the number of subscribers rose by an average of 12 million per month in the first half of the year.

Mobile penetration: India and the world

The Indian experience shows that although it took several years for deregulatory measures to have an impact, in the end competition-driven network expansion resulted in services being provided to those who had been denied access in the public monopoly model. However, even after the monopoly of the government-owned incumbent is broken and the growth trajectory increased, more is required if India wishes to close the gap with other comparable countries.

Table IV

Mobile Market Shares

Service provider	Market share (2008)
Bharati Airtel	24.34 %
Reliance	17.74 %
Vodafone	17.21%
BSNL	14.37 %
Idea	9.54 %
Tata Teleservices	9.23 %
Aircel	4.21 %
Spice	1.42 %
MTNL	1.29 %
BPL	0.49 %
HFCL Infotel	0.12 %
Shyam Telelink	0.04 %

Source: COAI, Figures are all-India shares, March 2008

The future: one phone for every Indian by 2015

According to COAI's projection, there will be 1.24 billion mobile users in 2015, which means one phone for every Indian. Operators are moving into the hinterland and uncovered areas. Almost 50 per cent of our new additions are from rural areas. The level of competition has increased with new players in the sector, which again leads to faster deployment of networks. There is still a huge untapped market in both rural and urban areas. Three out of five new subscribers are now coming from non-urban areas.

The country's total mobile services revenue is anticipated to surge at a CAGR of 12.5 per cent from 2009 till 2013, thus surpassing $30 billion. The penetration level of mobile market is also expected to grow to 63.5 per cent in 2013 from 38.7 per cent in 2009. Prepaid subscribers will keep on dominating the mobile connection market in India. In 2008, over 93 per cent mobile connections were prepaid and the figure is expected to increase to over 96 per cent by 2013, thereby surpassing 741 million from 312 million in 2008. In the meantime, the postpaid subscriber base will cross 29 million by 2013, growing 2.5 per cent from 23 million in 2008.

Revenue from data services will substantially contribute to overall growth of mobile services in India, at a CAGR of 16.8 per cent during 2009-13. Besides, the churn rate (the rate at which a subscriber switches his operator) is expected to exceed 59 per cent in 2013 from the current rate of 53 per cent. The growth will be mainly due to the increasing focus of mobile operators on the rural markets as well as low-priced handsets, and local consumer durable and electronic goods companies entering the mobile handset market of India.

Table V

State-wise Growth of Mobile

State	Growth (per cent)
J&K	268.35
North East	149.97
West Bengal and Andaman & Nicobar	141.43
Himachal Pradesh	121.46
Gujarat	113.21
Andhra Pradesh	110.92
Assam	110.80
Tamil Nadu	109.34
Bihar	108.60
Orissa	107.05
Madhya Pradesh	101.04
Haryana	100.75
Rajasthan	100.39
Uttar Pradesh (East)	92.57
Punjab	92.26
Kerala	87.85
Maharashtra	85.01
Karnataka	81.67
Uttar Pradesh (West)	79.91
Chennai	64.60
Kolkata	62.35
Mumbai	55.06
Delhi	53.20

Source: Author estimates based on TRAI data growth rate are annual average from inception of mobile services in each state to March 2008

Mobile connections in India will surpass 771 million by 2013, growing at a CAGR of 14.3 per cent. India is also likely to retain its position of being the second-largest wireless market in the world in terms of mobile connections after China. One major reason stated for the increase is huge adoption of mobile services in rural areas.

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