

Rural Marketing of Telecom services in India

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Abstract

According to the NCAER Rural Infrastructure Report (2007), the demand for telecommunication services are surging across rural India, as middle class and upper classes are growing in most villages but the tele-density levels are very low 1.67 per 100 residents compared with an average of 8.59 overall and 25.90 in Indian cities. This paper is an attempt to study the current status of tele services in rural areas and challenges and opportunities in the telecom sector in rural areas.

Keywords:

Rural Marketing, Telecom services, Rural Infrastructure Report, telecommunication services, tele-density levels

Introduction

Economic reforms in the post-1991 era have radically changed the Indian economy with maximum impact on the telecom sector. Telecom regulations and the explosion of competition in the telecom market raised teledensity in India dramatically to 12.7 per cent in 2006 from 1.94 per cent in 1998. However, not much has changed in the more than 70 per cent of the Indian population living in rural areas and this is a major cause for concern. In 2006, we find that the rural teledensity is still hovering around 2 per cent (from 0.4 per cent in 1998), whereas urban teledensity is above 35 per cent. In metros like Delhi, Mumbai, Bangalore, and Chennai, the teledensity is around 50 per cent (TRAI 2005b). Since teledensity has a positive relationship with the level of development, the large differential between rural and urban teledensities is a symptom of serious developmental differentials as well and should receive adequate policy attention both in terms of analysing the causes as well as for devising strategies for bridging the gap viably.¹ TRAI's observation that, 'A time has come that our policies of reaching

telecom to villages are looked at as 'Universal Service Opportunity' rather than 'Universal Service Obligation', is appropriate (TRAI 2005b). Access to telecom services including internet and broadband services, provides new and exciting opportunities for the users. Rural populations suffer the double jeopardy of not having proper road and public transport facilities and other infrastructure of urban areas in addition to being deprived of telecommunication services as well. This intensifies economic imbalances and inequalities which are already in staggering proportions. Communication technologies help in poverty reduction in three ways: (i) increasing the efficiency of the individual and thereby, of the entire economy, (ii) ensuring better delivery of public services, such as health and education, and (iii) creating new sources of employment, income, and training particularly for the poor population. Low cost wireless solutions are now available for rural areas at affordable prices. Business innovations such as pre-pay options have reduced the entry price at the lower end of the market and enabled easy access for multiple services in

areas where fixed telephone infrastructure is poor. Rural India will ultimately define the core strength of the industry, since the sheer volume of potential connections is immense. Inclusion of rural users in the customer base will strengthen the network and enable it to deliver multiple services in communication-starved rural areas. Since the prices of wireless telephony and communications both at the entry level as well as the recurring expenses have come down drastically due to overall growth, there is a huge demand for such services in rural areas also. However, dispersed and low density rural markets make it less profitable for private operators to enter such areas and compete with cheaper fixed line telecom rates in rural areas.

Objectives of Study

1. To see the current status of tele services in rural areas.
2. To find out challenge for tele services in rural areas.
3. To find out opportunities for tele-services in rural areas.

Indian Rural Market

India lives in villages, close to 72 percent of Indian population lives in rural areas. In the country we have 6.36 lakh villages out of

which only 13 percent have population above 2000. The rural economy contributes nearly half of the country's GDP (ETIG 2002-03) which is mainly agriculture driven and monsoon dependant. More than 50 percent of the sales FMCG and Durable companies come from the rural areas. The McKinsey report (2007) on the rise on consumer market in India predicts that in twenty years the rural Indian market will be larger than the total consumer markets in countries such as South Korea or Canada today, and almost four times the size of today's urban Indian market and estimated the size of the rural market at \$577 Billion.

Census of India defines rural as any habitation with a population density less than 400 per sq. km., where at least 75 percent of the male working population is engaged in agriculture and where there exists no municipality or board, and the same definition being accepted for the paper here. A marketer trying to market his product or service in the rural areas is faced by many challenges; the first is posed by the geographic spread and low population density in the villages in the country. The table below gives us the population and village size details in the country.

Table 1: Rural Population Statistics

Population	Number of Villages	Percentage of total villages
Less than 200	114267	17.9
200-499	155123	24.3
500-999	159400	25
1000-1999	125758	19.7
2000-4999	69135	10.8
5000-9999	11618	1.8
10000 & above	3064	0.5
Total	636365	100

Source: Census 2001

The second challenge is from the low purchasing power and limited disposable incomes in these parts of the country. But this has been changing in the last few decades with agricultural growth rate faster in the 1990's and 80's than the 1970's (CMIE 1996). Green revolution through the introduction of hybrid seeds, fertilizers and systematic irrigation had a major impact on agricultural productivity, and combined with it was a price policy which ensured minimum support price, and in turn insulated the farmers from market risk, cheap input policy and a stable demand (Vyas 2002). These all lead to a quantum jump in the incomes of farmers in the country. Initially the impact of green revolution could be seen only in the

prosperous agricultural states of the country but now slowly its influence has spread across the country with the increase in irrigation (Bhalla & Singh 2001). Though the income levels overall are still very low there are many pockets of prosperity which have come up in the rural areas in the country.

According to NCAER 2002, the number of rural middle class house holds at 27.4 million is very close to their urban counterpart at 29.5 million. The improvement in the support prices being offered to farmers also has an impact on the disposable income with the farmers. And between, 1981-2001 there has been tremendous improvement in the literacy levels, poverty and rural housing in the

villages of the country. Rural literacy levels have improved from 36 percent to 59 percent, the number of below poverty houses have declined from close to half to 46 percent and the number of pucca houses have doubled from 22 percent to 41 percent. These figures provide us with a clear picture that rural India with the increase in agricultural income and improving standards is on the verge of becoming a large untapped market which marketers have been aspiring for a very long period of time. Thus the current status of rural markets makes it an attractive market for marketers. The next section specifically looks at the current

status of rural telecom and the technology perspective.

Rural Telecom, current status in India

According to the NCAER Rural Infrastructure Report (2007), the demand for telecommunication services are surging across rural India, as middle class and upper classes are growing in most villages but the tele-density levels are very low 1.67 per 100 residents compared with average of 8.59 overall and 25.90 in Indian cities. Data below gives us the details of the urban rural divide,

(Data as on 30th September 2011)

Telecom Subscribers (Wireless +Wireline)	
Total Subscribers	906.93 Million
% change over the previous quarter	2.36%
Urban Subscribers	601.42 Million (66.31%)
Rural Subscribers	305.51 Million (33.69%)
Market share of Private Operators	85.83%
Market share of PSU Operators	14.17%
Teledensity	75.48
Urban Teledensity	166.01
Rural Teledensity	36.40
Wireless Subscribers	
Total Wireless Subscribers	873.61 Million
% change over the previous quarter	2.57%
Urban Subscribers	576.12 Million (65.95%)
Rural Subscribers	297.49 Million (34.05%)
GSM Subscribers	761.20 Million (87.13%)
CDMA Subscribers	112.42 Million (12.87%)
Market share of Private Operators	88.40%
Market share of PSU Operators	11.60%

Teledensity	72.70
Urban Teledensity	159.03
Rural Teledensity	35.44
Wireline Subscribers	
Total Wireline Subscribers	33.31 Million
% change over the previous quarter	-2.86%
Urban Subscribers	25.30 Million (75.94%)
Rural Subscribers	8.02 Million (24.06%)
Market share of Private Operators	18.58%
Market share of PSU Operators	81.42%
Teledensity	2.77
Urban Teledensity	6.98
Rural Teledensity	0.95
Village Public Telephones (VPT)	0.58 Million
Public Call Office (PCO)	2.59 Million

The characteristics of the rural areas, low population density and spread out population, difficult topographical and climatic conditions make it difficult to provide telecommunication service of acceptable quality by traditional means at affordable prices (CDOT, 2007). But with the development of new appropriate technology like wireless technologies have been accepted that it is possible to overcome these difficulties. Wireless technology has been proposed to be the first viable infrastructure to rural and underdeveloped areas (Pentland et.al, 2004) and Gunasekaran and Harmantzis, (2007) have therefore recommended that villages near a larger town can take advantage of the fiber backbone; a remote village can be connected via VSAT link. From the fiber backbone, a point-to-point or point-to multipoint

WiMAX link can be used to connect one or more villages near the town, thus enabling WiMAX to distribute locally among all rural community groups in a given village using long distance Wi-Fi technology The technology angle to providing telecom services has been not been given much attention as it has been written on by many authors and the focus of the current paper is marketing issues related to marketing if telecom services.

Till recently it was the government which made an attempt at providing the services in rural India. The Government of India, Bharat Nirman Initiative, 2005-09, plans every village in the country to be connected by November 2007. The aim is to provide every village in the country with a Village Panchayat Phone (VPTs) by the year end. But the status and maintenance of the VPTs

have been found to be lacking, and a large number of them have been found to be out of order and disconnected due to the non-payment of bills as villagers perceive them as a free service provided by the government (Bhatnagar, 2000). And provision of one phone per village might not be able to address the tele-density issues. The private telecom operators have been occupied with the urban market, India being the fastest growing mobile market in the world, but they have to take interest in the rural markets owing to the size and the fact that the rural markets are the ones that would provide them with the growth in future. Thus the government as provider of telecom services can only be a part of the solution and the major thrust has to come from the private operators. Lots of studies have found a positive linkage between telecom and level of development; the next section is about the same.

STATUS OF RURAL TELEPHONY

India's tele-density in 1948 was 0.02 per cent. The telecom industry was for the exclusive preserve of the public sector. All Five Year Plans, and successive governments placed strong

emphasis on telecom development. Yet in 1998, the tele-density was only 1.94 per cent, displaying an incremental growth of 1.92 per cent in the fifty year period post-Independence,

indicating an average yearly growth of 0.04 per cent. After the introduction of telecom regulation in 1997 and liberalization of the sector, growth accelerated 12.5 times over the nonliberalized

monopoly years. Competition regulation was introduced in 2003 and it led to a growth of 2 per cent in 2003–4 and again in 2004–5. With stabilization of competition regime, tele-density increased by about 3 per cent in 2005–6 and as on 30th September 2011 is 36.40%.

Despite governmental concern for rural tele-connectivity and allocation of huge US\$ funds for rural telecom, there has been no substantial growth in rural areas and the rural growth curve pre- and post-liberalization looks remarkably flat. This is perhaps on account of the fact that mobile technology, the vehicle for growth in urban areas has not been introduced in rural areas. Competition in rural telecom is virtually non-existent and the government is the

monopoly provider not unlike the 1948–98 scenario countrywide.

EVOLUTION OF THE TELECOM SECTOR: LESSONS FOR RURAL TELECOM

Though manufacturing of telecom equipment by the private sector was permitted in 1984 and some services like radio paging were also opened for the private sector in 1992, the reform process only started after the issuance of the National Telecom Policy, 1994 (NTP 94), which called for bidding for private licenses and setting up of an independent regulator. However, the mere entry of private operators in the network did not help. The competition really started after a regulator was appointed in 1997 following the promulgation of the TRAI Act 1997 and it made effective interventions to create a level playing field for new entrants. The Regulator issued the first tariff order in 1999 and thus the reform process really started during the late 1990s. Some problems were identified in NTP 94 and in the implementation of TRAI Act, 1997. High Court also quashed the powers of TRAI to enforce interconnections. This

led to the issuance of NTP 99 and amendments in the TRAI Act in 2000.

The challenges of rural India

There are four main difficulties in serving rural communities, each one of which has appeared insurmountable:

- **Power challenges** – Most of rural India is not served by the power grid. Some areas may get ‘agricultural power’ – two hours in the morning and evening – but even this is the exception. When fuel can be afforded and delivered, power tends to come from diesel generators. The combination of poor fuel quality and poor generator maintenance severely limits the life of any generator.
- **Revenue challenges** – Rural India can pay for mobile services, but only around \$2 per month. The cost base of any solution has to be geared to these ARPU levels.
- **Skills challenges** – There are no trained telecom engineers and few people can read or write. This makes the installation and maintenance of GSM networks highly challenging.

- **Access challenges** – These are extremely remote communities, served by poor roads and no other significant infrastructure.

- **Low Per Capita Income**

Per capita income is lower in rural areas compared to those in urban areas. Again, the distribution of rural income is highly skewed, since the land holding pattern, which is basic asset, itself is skewed. Thus the rural population presents a highly heterogeneous spread in the villages.

Opportunities

There are many opportunities waiting to be exploited in the area of rural marketing.

- The various infrastructural problems have been tackled to a great extent. Work is in progress for the better connectivity by roads; more than 90% of villages are electrified. Rural telephone density has gone up by 300% in last 10 years. Rural literacy rate has also improved from 36% to 59%.
- There is an increasing convergence between urban and rural consumers especially the young consumers, who have almost same aspirations as that

of a young urban consumer. Thus, the marketers can target a certain section of rural consumers in the same manner as they are targeting the urban ones.

- The purchasing power of rural families has grown rapidly. Rural Marketing Association of India (RMAI) confirms that rural income levels are on a rise. Income from non-farm sector is likely to touch 66% of net rural income by 2020. Market size would thus, nearly double. Average rural spending would grow 6 times from current levels in 20 years. Moreover, the percentage of Below Poverty Line (BPL) families declined from 46% to 27%.
 - Moreover, the per capita income of top 20%-30% of rural segment is not much different from urban middle class. This means that the affordability of the segment of rural consumers will be almost equal
- International Conference on Technology and Business Management March 28-30, 2011 to that of the urban middle class. Thus,

marketers can tap this segment as well with the product he is targeting the urban middle class.

- Lastly, as we know that India's rural population accounts for 12.5% of the world's total population, 600,000 villages with 700 million people; the country side thus, offers a huge consumer base and huge opportunity for rural marketers in India.

Indian telecom operators have started investing in infrastructure to roll out their services in these areas. Realizing this as a huge potential, small Indian handset manufacturing companies, including Micromax, Intex Technologies and Karbonn, have lined up a marketing spent of around Rs 100 crore for the financial year 2009-10. These companies are bullish about the Indian rural market in terms of the number of handsets being sold. As per analysts, almost 60% of the total net additions are from the rural area, which makes this market more lucrative for these small handset manufacturers.

Nokia, the world leader in mobile phones, introduced SMS alerts from Malayalam Manorama based on the feedback that newspapers don't reach a lot of villages and

it has received a good response from the rural areas. Nokia has also lined up applications meant exclusively for the non-urban population, which provide entertainment, education (helping people learn English, for example) and agricultural information to subscribers. The first pilot of these applications, called Nokia Live Tools (NLT), was rolled out in January 2009 in five districts of Maharashtra. "Many of the applications in NLT help those without access to regular TV and newspapers, with information.

Adopting E-governance the rural telecom initiative in the country to some exiting Institutional Infrastructure like cooperatives or Microfinance institutions and NGOs would ensure more sustainable success of the launch of the services. And the Experience of Smart Communications Inc in Philippines reemphasizes the importance of making the services affordable by innovations in both service delivery as well as pricing of services. Learning form the Chile experience shows us that government too needs to play a constructive role, and the African experience highlights the importance of low cost handsets in the expansion of services.

Telecom and network connectivity have widely been seen as enablers of a nation's socio-economic growth; a McKinsey study cites that a 10% increase in teledensity contributes to 0.6% of GDP growth. Though urban India is reaping the benefits of the telecom revolution, rural teledensity is still low, at only 8%.

The scenario for Internet and broadband penetration is much bleaker - a JuxtConsult report pegs India's rural Internet usage at just 5 million. The constantly evolving ICT landscape has not been unable to include the vast rural majority, simply because these areas have no access to the internet. The industry could do more to think differently on how rural India can participate and benefit from the ICT revolution.

The Internet is without a doubt the superhighway on which economies surge ahead, and apart from the apparent benefits to the economy and a modern workforce, there is also immense opportunity for agriculture as well as other traditional industries.

Imagine if rural communities had access to information that could improve their

livelihoods. Initiatives such as e-Choupal have successfully been able to leverage the Internet to empower small and marginal farmers. The program provides farmers with know-how, services, timely and relevant weather information, transparent price discovery and access to wider markets - all through a mobile device that feeds off a wider network. This has helped roughly 4 million farmers to better manage risk. India would be well on its way to minimizing the digital divide if similar models were replicated across other sectors in rural areas - cottage industries, fisheries, and others.

The true benefits of technology are in its application, and if an effective deployment of a network that enables academic information to flow to rural areas brought millions of children access to better education, we should be able to improve our scores on literacy and employability. A recent effort towards this has been made by several IT majors who have come together for a District Learning Centre initiative at Chhindwara, Madhya Pradesh, to provide learning opportunities and IT training to the youth of the district.

Access to high-speed internet services could make rural BPOs a viable option, offering attractive employment opportunities to village youth. This in turn would decrease the current migration rates of rural population to urban areas, reduce rural India's dependency on agriculture, and contribute towards inclusive growth.

The government has also been advocating the use of technology to enable efficient delivery of public services. State Govt. endeavours to use technology include forays into wide area networks, setting up systems for processing information and delivering services to enable the citizen-state interface for various services like electronic file handling, public grievance systems, and routine transactions such as payment of bills and tax dues.

But all is not hunky dory - for rural areas to truly benefit, PC penetration will have to increase and affordable PCs or suitable alternatives will have to be made available to the masses. Additionally, if inclusive growth is our goal, India needs to treat the Internet and telecom connectivity as critical infrastructure, just like roads, airports and power.

The winds of change are blowing in that direction - the Indian government has recently announced its 3G policy which will make available 3G, HSPA and WiMAX technologies that are expected to bridge the last mile and drive mobile broadband in rural areas. Moreover, the Telecom Regulatory Authority of India's (TRAI) recent Internet telephony decision, permitting ISPs to terminate local, STD and ISD calls from computers to mobiles and landlines or vice versa, is likely to reduce both local and long distance call rates and boost rural connectivity in a relatively price-sensitive market like India. Once differences over policy issues and spectrum allocation are resolved the country could see 3G HSPA and Net telephony rollouts, throwing open a world of possibilities. In addition to all the benefits cited earlier on in this article, other potential applications could include introduction of customised services in regional languages via Live TV, webcasts and streaming audio/video applications, e-healthcare and infotainment, to mention a few. India can then look to adopt models that have been tried and tested in other markets or even export some of our

learnings to other markets, and are likely to delay services.

Rural India is expected to account for 40% of the 250 million new wireless users as per a recent study conducted by FICCI and Ernst and Young. If these subscribers had access to broadband and high-speed Internet, every citizen would truly be able to participate in - and benefit from - the global information revolution and contribute to a balanced growth of the nation.

Urban markets are becoming increasingly competitive for many products. In some

cases they are even saturated. On the other hand, rural markets offer growth opportunities. Rural market is the market of the new millennium. Marketers will have to understand the rural customers before they can make inroads into the rural markets. The size of the rural market is fast expanding. The rural market is fascinating and challenging at the same time. It offers large scope on account of its sheer size. It is often said that *markets are made, not found*, this is especially true of the rural market of India. It is a market for the truly creative markets.

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