

Empowering India-Opportunities in Rural Telecommunications

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In the past decade, India has seen a veritable telecommunications revolution which is the result of effective regulatory and policy environment coupled with an enterprising telecommunications sector. The growth of rural Teledensity is remarkable. It has risen to 36% as on 30th August 2011 from a mere 1.7% in 2004. In fact, today rural Teledensity is growing at a much faster rate than urban Teledensity. At the beginning of 2011, there were 282.29 million rural connections (most of which are wireless), as compared to a mere 4.84 million (only landline) phones in the year 2000. Practically all growth has come from mobile telephony and the private sector has played a huge role in this expansion. With an average family size of five, it may be assumed that almost every rural household owns a mobile phone. If not, then there are Public Calling Offices and Universal Service Obligation Fund sponsored Village Public Telephones in almost every inhabited census village in the country¹. Rural India is certainly well connected through telephones though not to such an extent by the internet/broadband. Yet, even in small towns, a good percentage of Indians do access the internet regularly in shared spaces (public kiosks, offices, educational institutions etc). The smart phone is the leading mode for individual internet access suggesting a good market potential for wireless broadband.²

ICTs are known to be facilitators of socio-economic development. In rural India with its obvious lack of basic facilities by way of health, education, financial services and employment avenues etc, ICTs can help to bridge gaps by providing access to internet and mobile enabled 'e' and 'm' services. ICTs can make knowledge and employment opportunities, education, health, financial and government services etc available to rural India within their villages or even homes. Certainly, the notable growth of rural telephony, especially mobile telephony has brought improved connectivity and this would have contributed significantly to socio-political and economic mainstreaming of rural India in the past decade³. However, much more needs to be done if the benefits of telecommunications connectivity are to translate into overall rural development and this in turn constitutes new prospects for service providers. Improving broadband penetration is a key focus area and this is being addressed actively by the Department of Telecommunications (DoT). Thus the Universal Service Obligation Fund (USOF) has launched a Wire line Broadband scheme in 2009 and is at an advanced stage of planning a rural Wireless Broadband scheme. It is also to fund the National Optic Fibre Network (NOFN) which shall soon connect 2,50,000 village panchayats⁴ and co-located *Bharat Nirman Kendras* (erstwhile Common Service Centres (CSCs)) with Optic Fibre thereby providing high speed broadband facilities. Bandwidth from NOFN will also be available to eligible service providers to provide broadband and broadband enabled services in rural areas. There is tremendous

¹¹ www.usof.gov.in

² "Smartphones preferred over PCs for surfing web: Survey" *Financial Express*, August 30, 2011

³ Studies indicate that a 10% increase in mobile penetration leads to a 1.3% increase in GDP (Kathuria et al, 2009)

⁴ Village local self-government unit

potential in rural markets especially given the background of robust mobile connectivity and the imminent spread of broadband to rural India. In the author's view what rural India needs desperately is information, knowledge and urban quality services. This translates into a huge market opportunity for providers of ICT enabled access to information, education, health, financial services, commerce and employment opportunities etc.

Let's start with m-services. The author has been closely involved in the recent USOF pilot project scheme for mobile value added service(m-VAS) for rural women's Self Help Groups (SHGs). This is a part of USOF's *Sanchar Shakti* scheme. In this scheme, SHGs' information needs are identified based upon their main entrepreneurial/income generation activities and information is then delivered in local language through mobile phones. It could be through SMS (if the women are literate) or otherwise through Outbound Dialers (OBDs) and Integrated Voice Response Systems (IVRS). The focus is on skill building and income enhancing information (training, market opportunities, input and output prices, weather, crop/livestock care etc), but information is also provided on health, education, women's empowerment and local government schemes. Memorandums of Understanding (MoUs) have been signed for 9 pilot projects in different states and full details of the scheme are available on the USOF website (www.usof.gov.in). Interacting with a broad spectrum of rural women from Uttaranchal to Kanyakumari during the course of validation of concept for these pilot projects has been an eye opener. It is amazing how responsive rural women are to information and how very vocally and precisely they demand relevant information/data. In Uttaranchal, the SHGs wanted to know how to obtain a license to sell forest produce (which they gather and process) rather than depend on intermediaries. They are very keen on information about market prices and women's health. In Rajasthan's Ajmer district, the author was struck by the concern of rural mothers to ensure that not only do their daughters get a good higher education but that they are given information on job opportunities too. SHG members from Kanyakumari villages were very keen on improving profit margins from the sale of their cottage industry products and wanted appropriate SMS inputs. It was heartening to note that many women who had earlier studied till class five or six were reviving their long forgotten reading skills thanks to their eagerness to read the m-VAS content. Across the board, women farmers were extremely receptive to and interested in crop related information (sowing techniques and timings, disease prevention etc). This may come as a surprise, but it is a fact that 80% percent of economically active women in India are involved in agriculture⁵. Information on government schemes was valued highly and acted upon promptly. NREGA related information too was in high demand.

As of now rural women hardly constitute a target segment for rural m-VAS and this project was designed not only to cater to the needs of rural women but to demonstrate the demand for such women-specific content to mobile services and content providers. Already Government Ministries such as Women and Child Development are actively considering m-VAS for target groups like *Anganwadi* workers and women *Sarpanches*. The point is that even this

⁵ Nidhi.N.Srinivas, "Alpha males need not apply," *Economic Times*, April 4, 2011

unexpected segment responds so positively to information and demonstrates such an eagerness for relevant content, This goes to show the value of knowledge based content and hence the market potential for sale of relevant m-VAS in local language. This is an area that needs exploration and is a far cry from the current focus on entertainment based m-VAS. While many government agencies and private agencies such as Reuters Market Light and IFFCO are already providing m-VAS to farmers, it is felt that a much broader spectrum of informational/service needs of rural population can be successfully met through creative use of m-VAS on a commercially sustainable basis. One more learning from *Sanchar Shakti* was the very high price elasticity of demand for voice services in rural India. Rural woman know the cheapest per minute call rates available locally and demand the same from the *Sanchar Shakti* service provider. Useful and relevant m-VAS would ensure market differentiation and consumer loyalty.

As mentioned earlier, the lack of higher education facilities in the vicinity of their homes makes rural India the ideal market for distance education services. The interaction with SHGs in Rajasthan made it clear that in spite of the family's desire to educate its daughters, a rural girl can only study beyond the secondary school level if higher education facilities or distance education opportunities are available in the village itself. In the present context of rural educational infrastructure, this translates into the need for e-enabled study centres which the *Bharat Nirman Kendras* can provide. It also points to the need for public access to broadband facilities in every Indian village. Apart from education this would make medical facilities, employment opportunities and government services etc accessible. The utility of ICT-enabled services to provide a feedback mechanism to rural Indians is often overlooked. It is felt that this is critical for successful governance and would be a great pull factor leading to demand for ICTs. It is amazing how many an urban Indian actually believes that there would necessarily be very low demand for broadband in rural areas. Already there are more internet users in small towns than the top eight metros put together. Interestingly more than 20% users are school children and 10% users belong to lowest socio-economic strata⁶. While only a minority of rural Indians may be able to afford individual access to broadband on account lack of computing devices and power, this does not imply a lack of demand for broadband enabled services. In interactions during the verification of USOF's wire line broadband scheme, it has clearly emerged that better off rural families across the country do buy computers for the same reasons as urban families do -children's education, knowledge and entertainment or as an aid to their incomes/businesses. They would relish good broadband connectivity as much as urban Indians do. The fact that the USOF scheme offers Rs 99/- and Rs 150/- monthly subscription plans (with no installation/registration/installation charges) is a plus point but 60% of rural users actually opt for higher value plans. With the availability of low cost devices like *Aakash* and as smart phones become increasingly affordable, the demand for individual access to broadband will increase further. There is also a healthy demand for public access broadband facilities. This is logical in the face of near absence of local infrastructure and services. Just as an urban Indian searches

⁶ Harsimran Jhulka, 'Small Towns Take India into the Big League of Internet,' *Economic Times*, November 8, 2011

online when looking for a new or locally unavailable information, service or product, rural Indians too would like to research/access the same online. This is a rural reality even today.⁷ Booking journey tickets online is a simple example. If credit cards are a problem intermediaries (village level entrepreneurs (VLEs)) with credit cards step in to facilitate transactions. VLEs also facilitate online money transfers, download mobile software etc. Skype is just as useful and popular amongst rural Indians as a means to reach out to relatives in cities/abroad. This demand will only grow as the rural literacy rate rises beyond the current 68.91%⁸ and knowledge and e-connectivity increasingly become key to empowerment. The demographic profile of our country means that more than 50% rural Indians are less than 25 years old. They have the same affinity for the worldwide web as urban youth. I have personally seen rural school girls downloading online games with as enthusiastically as any city-bred child. The frustration with the speed of the connection was palpable!

A recent article in the Time magazine highlighted the growing potential of e-commerce in India. Going by the current success of e-tailing and anticipating the tripling of Indian internet users to 230 million odd by 2015, India is slated to be a very attractive e-commerce market. Rural India already accounts for about 50% of sale of FMCGs, consumer durables and services and it may be assumed that broadband enabled e-commerce would be a bigger hit in villages where media exposure is at par but shopping options are limited. It is a fact that rural India accounts for 40-60% of the sales of online retailing portals such as eBay.in, Snapdeal.com and Naptol.com⁹.

The latent potential of rural BPOs has been adequately demonstrated by successful examples such as Rural Shores, Desi Crew, Nextwealth etc. Given the rising salaries and high attrition rates of urban BPOs and in the context of improving rural connectivity, rural business and knowledge process outsourcing has huge potential as a business opportunity and as an employment opportunity for our youthful rural population including rural women (for whom migration to urban areas is not an option).

In sum, a time has come when we should cease to marvel at increasing rural Teledensity. Instead, and especially in the context of the government's current focus on rural broadband, the time is ripe to look at ICT enabled services catering specifically to rural needs as the next big opportunity and the way forward.

DISCLAIMER

Views are entirely personal & do not reflect Government of India's policy or stand on the subject

⁷ T.E Raja Simhan, 'Mouse in the Village,' *The Hindu*, May 16, 2011

⁸ Census of India 2011(provisional figures)

⁹ S.Roy and D.Ghosh, 'Rural India fuels growth of e-tailing,' *Financial Express*, May 27,2011