

## Developing a Route to Market Strategy for Mobile Communications in Rural India

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An interview with  
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## Introduction

There is a lot of hype in the mobile telecommunications industry about the “opportunities” for serving low-income consumers in the rural areas of developing markets. There are at least 2.7 billion consumers at the very ‘base of the economic pyramid’, with per capita incomes of less than \$1,500. Of those, more than a billion people - roughly one-sixth of the world’s population – have a per capita income of less than \$1 per day, and very few have a mobile phone at present<sup>1</sup>. There is also a lot of talk about the social and economic benefits that an increase in mobile penetration can bring to the poorest countries - a recent study by London Business School found that, in a typical developing country, a rise of ten mobile phones per 100 people boosts GDP growth by 0.6 percentage points<sup>2</sup>.

But the success of mobile network operators (MNOs) in penetrating low-income customers has been patchy at best. Despite the World Bank estimating that already 75% of the world’s population are within coverage of mobile networks, most companies choose to focus on the middle and upper income segments of the developing world – mobile penetration in many parts of the Asia Pacific region is below 20%, while in Africa few countries have penetration rates greater than 10% (see exhibit 2).

In most cases, MNOs have served the poorest consumers through shared-use models such as GrameenPhone’s Village phone concept in Bangladesh (see textbox), due to the commonly held belief that reaching these consumers is difficult due to two key challenges – affordability and availability.

*TEXTBOX: Grameen Village Phone, pioneered by Grameen Telecom in Bangladesh, is based on the provision of \$200 micro-finance loan to women villagers to purchase a handset and then sell services to a local village community. As of end 2006 there were more than 250,000 entrepreneur subscribers, providing telecommunications services to more than 60 million people in the rural areas of Bangladesh. The program has been extended in cooperation with African operator MTN to Uganda, Rwanda and Nigeria. Other examples of shared-phone use models include:*

*-Vodacom Community Services Phones, South Africa: a franchise model for townships and rural areas, Vodacom provides a reconditioned shipping crate which functions as the business premises and is strategically positioned in an underserved area.*

*-BellSouth, Ecuador: The operator has more than 600 payphones, many housed in restaurants, shops, gas stations and similar establishments.*

*-Celtel Nigeria: ‘Jembi Payphone’ service available to small operators who previously operated under branded umbrellas and small kiosks. Aims to create up to 60,000 employment opportunities nationwide.*

Affordability relates primarily to the historically high-cost of mobile handsets in relation to the incomes of the poor, and the challenges of meeting recurring costs such as recharge cards or minimum monthly spend. Availability relates primarily to the difficulties of reaching poorer and more geographically isolated consumers – as average revenues per user (ARPU) fall in the face of increasing capital expenditure (CAPEX) and operating expenditure (OPEX) and distribution/marketing costs, the profitability of these consumers can collapse (see Exhibit 1). This commonly held belief on behalf of both operators and regulators has resulted in various initiatives to address the so called “universal access gap” – universal access funds and subsidies for infrastructure investment in more isolated rural areas being two typical approaches<sup>3</sup>.

<sup>1</sup> GSM Association (2006), Universal Access: How Mobile Can Bring Communications to All, Polic Paper 2006023, June. P. 1

<sup>2</sup> Leonard Waverman, Meloria Meschi, Melvyn Fuss (2005), “The Impact of Telecoms on Economic Growth in Developing Countries”, Vodafone Policy Paper Series, No. 2, March. pp 3-6.

<sup>3</sup> International Telecommunications Union (2003) , ‘The Role of Sector Reform in Achieving Universal Access’, in *International Trends in Telecommunications Reform: Promoting Universal Access to ICTs*, Geneva. pp. 54-55.

In this interview Gurdeep Singh, Operations Director with Hutchison Essar India, discusses an alternative approach to serving the poor with mobile telecommunications services – business model innovation.

About Hutchison Essar: Hutchison Essar established its presence in India in 1994 by acquiring the cellular license for Mumbai. It now has operations in 16 circles accounting for 70% of India's mobile customer base. With over 27.7 million customers, it is one of India's most reputed telecom companies.

Hutchison Essar, under the Hutch brand, over the years, has been named the 'Most Respected Telecom Company', the 'Best Mobile Service in India', and the 'Most Creative and Most Effective Advertiser of the Year'. Hutchison Essar is now part of Vodafone - the world's leading international mobile communications company. Vodafone now has operations in 26 countries across 5 continents and 36 partner networks with about 225 million proportionate customers worldwide. Vodafone has tied up with Essar as its principal joint venture partner for the Indian operation.

The Essar Group is one of India's largest corporate houses with interests spanning the manufacturing and service sectors like Steel, Oil & Gas, Power, Telecom & BPO, Shipping & Logistics and Engineering & Constructions. The Group has an asset base of over Rs.20 billion (US\$ 4.4 billion) and employs over 4000 people.

## The Interview

**Anderson:** What are the major challenges that you have faced with the transition from urban to rural markets?

**Singh :** Our movement to this market in Uttar Pradesh was the first such attempt the company made in moving to the rural mass market. Uttar Pradesh is the most populous and fifth largest state in India and has a population exceeding that of France, Germany, and Holland combined. I believe that it is the most populous sub-national division in the world.

Frankly speaking, the organization was very hesitant moving to a real mass market. Because we had no experience we had the belief that the mass market would deliver very low revenues and hence it would be very capital intensive. So one of the key things that one had to do was to strengthen management belief that there is a market in the rural areas, and that could be done without showing the numbers as a subscribers additions and showing also that there could be corresponding revenue. That was the biggest challenge that I faced.

**Anderson:** How were you able to convince the management team that there was an opportunity in rural areas?

I convinced people that at the end of the day, population matters. The first role that I played was to shift the focus from so called segmentation, SEC A, B, C and D and brought in a belief that population matters. Because I was very convinced that with the falling tariffs and the falling handset prices world over, affordability will soon become a non issue. Then, what would become the key issue would be how to reach out to the subscribers and bring them into the fold. So the market that I went into had penetration of below 3% and it was largely served by the government-owned operator BSNL. And they, for one reason or the other, were not aggressively rolling out network and distribution. I said, "hey this is the market where fast roll out is going to be very very crucial". And that was the first phase, and I think that I did manage to convince the management that I be given an opportunity. We have taken so many punts in the past, let me take this punt.

**Anderson:** Can you say more about the importance of population density?

Business for the future in India is purely population linked. And it will demolish all the verticals that you create or the horizontal that you create called SEC A, B, C and D. The critical issue for any operator will be reach and access. Naturally, when you handle a very large 300,000 Square Kilometers of area, that is the market that I manage in Uttar Pradesh, there are unique challenges. But what came to my advantage was population density, and I think that plays a very key role. We had population density of over 650 people per Sq. Km. And that makes a very good business sense. So I was very clear on the metrics that I was working to follow.

**Anderson:** What were your first steps to reach this underserved rural market?

In the first year we went targeted the low hanging fruit - we just did a descending order analysis of the markets by population. We went on to roll out our network, and we began to add low-income subscribers which had never been seen in this industry. In early 2004, when the best of our market would have 20,000 to 25,000 subscribers a month, we went on to add 50,000 to 60,000 subscribers per month. That opened the eyes of the management and strengthened my initial belief that population means business. For a change, population in India is an advantage! So we went on this journey for a year and a half and we acquired around 700,000 subscribers in the first year itself, which was unheard in this company, in this country. Even our best competitors were not following this model. I think that's the time everyone realized that there is a real rural market.

**Anderson:** And what were some of the biggest challenges as you moved from urban to rural areas, we talk about things like affordability and availability. What were the keys for you?

**Singh:** There were two important issues that we were grappling with. The first was the issue of where and how to roll out, and second was how to get distribution there. Finally, there was the critical question of how to align your organization to serve this new market.

If you are basing roll-out on the official political map, you soon run out of 'dots' on the political map in terms of small towns and villages. When we finished our first phase of roll out, which was going by the descending order of the population using census data, we realized that we were serving only 30% of the population. So where were the other 70% consumers? It was becoming very difficult.

We recognized that we could rely on information from our retailers or we could use a more scientific method. We went on to use a tool called GIS (Geographic Information System), which is a satellite-based technology that can capturing every 'dot' of a village, right from a 500 population village to a 5 million population city. It's like playing a video game, and we found it very interesting. We said, "hey, if the population is the game play, then why don't we make this tool as our business tool." We went then on to expand network from the obvious dots to the not so obvious dots through the help of the GIS tool. And we said that, "once we will apply the same formulae, we will go to the cluster of the population. Wherever there is high density, we will attack it first". And that's been our business roll out.

So our business roll out in terms of network has been very differentiated. We pioneered it in India with a meaningful 'smart' roll out. We came to recognize that if you locate your base station in a position that can capture maximum population, then your signal is ubiquitous. It will reach all the subscribers or the potential subscribers in that market and if you can overlay distribution on it you are actually making your CAPEX work hard.

**Anderson:** Can you tell us how you worked to complement your network roll-out with distribution?

**Singh:** When we started distribution, we actually followed a typical FMCG structure. We had established distributors and you could reach to the obvious market. As our reach became deeper and deeper, we were struggling with two issues.

A) How do we manage cash flow?

- B) How do we bring in trained skilled set of distributors in the market to reach out those areas where the base stations are going to be traveling?

It was quite a challenge. So we said, hey there is an opportunity.

Our business is very different from any other manufacturing goods industry, where there is a centralized factory and you ship your products out to the various markets and lay your distributions on it. Here, network signal is our product. It goes into that area we believe one base of 900 mega spectrum can throw an efficient signal around a 5 Km. radius. Look, my signal goes everywhere, so I have no choice but to take my distribution everywhere. I don't have a choice to say, "No, my package deal will go to this kind of population and sachets will go to this kind of market, or loose tea will go to this kind of market". We said our distribution cannot be differentiated from a 500 population based town to a 100,000 population base town.

**Anderson:** And what was your response to address this realization?

**Singh:** We stumbled upon what I consider to have been a very innovative thought - if a base station is a local 'factory', then why don't we align it to an entrepreneur - the son of a successful local store owner, who is asked to manage distribution under the signal area of a base station.

In essence, this entrepreneur would own the base station and set up everything that the company may need in terms of retail, in terms of marketing and the local merchandizing efforts to prop up demand in the local community. So we made a one stop shop solution, attached to one or two base stations at the most, and recruited local entrepreneurs to do the following:

- First, set up infrastructure – typically a 200 sq ft. office, designed by the company to provide a service window to retailers and to act as the hub for all local marketing activities.
- Prop up demand – the entrepreneur is provided with training on distribution, sales and marketing techniques, and is responsible for all promotional activities in his local area.
- Finally, given that we planned to roll out so many base stations, and we could have so many potential mobile entrepreneurs, we recognized that it would be difficult to do everything ourselves. So we retained our distributor partnerships, but what we did was to partner with our existing distributors capabilities to move from direct distribution to managing our growing network of local entrepreneurs. We said to them: "You are no longer going to be serving the market directly, but you are going to leverage your people to serve the market better through recruiting, training and supporting our entrepreneurs that we call associate distributors".

In a way, we shifted the role one layer down for our distributors. And I think that worked very well for us. Competition hasn't really quite got on to that method of our distribution system.

Distribution we believe is a recurring edge in our business. Network is a one time edge. So you need to milk that base station for years to come. So that's why this is your key back bone that you carry into the business. That's how we went out to develop a very unique model of distribution.

This is a very uniquely differentiated method. It is now called GIS based distribution system. We worked on a very single line philosophy, "wherever signal goes, distribution must follow". And that is the rigor we brought into the business. So these two planks were differentiated.

**Anderson:** How do you identify and select the entrepreneur and how much investment do they need to make? How does cash flow through your system?

**Singh:** We typically have the associate distributors who are so called 'associate distributors' located in the vicinity of 30-40 Kms from the main distributor, we expect investment from them which is good enough for 7 days of market investment. So that they can rotate money 4 times in a month. They are typically the son of a successful local store owner - young graduates or young unemployed graduates or people who have been assisting their parental business, but who want to branch out and do something different from what their parents did.

Because ours is a dynamic business, where 50% of the people who are buying the phones are below 35 years of age, we believe that our customers associate and collaborate better with that kind of retailer set and the consumer set. So they help us gain momentum in the market.

The entrepreneur invests only for a week, rotates that investment four times a month, and get support from our associate distributors for delivery and account keeping. The distributor manages transactions for the top ups and the recharges, and also makes the physical deliveries of the SIM to the local retail locations. Distributors use a well designed van which goes on a permanent journey plan and goes on servicing the associate distributors.

**Anderson:** And the cash flowing through the system is collected by the distributor vans or how is the money moving through this chain?

**Singh:** It's by physical collection either through the van or normally they transact through bank to bank, or third, they make demand drafts and send it to the nearest location. So they draw the money from the bank, make a demand draft because they can't carry the cash for security reasons, and an assistant travels 30 or 40 kms away in the morning and returns by afternoon.

As an organization, we deal only with distributors. For Associate distributors, we only do the following:

- We do the screening.
- We do the training and certification
- We set the expectations, because every business region has performance metrics linked to the population
- We specify what margins we want, what volumes we expect, and what kind of expenses we are willing to share.

The distributor's main role is logistics and transaction management. Besides that a distributor plays a very limited role in the associate distributor's territory. The local entrepreneur is trained enough to manage his own market. The most successful associate distributors have the opportunity to become a distributor as their region grows.

**Anderson:** Can you talk for a moment about how you have managed this organization, obviously you have very capable people working in marketing operations in urban markets and how have you structured the organization in the rural markets?

**Singh:** Our entire marketing organization is vertically divided in two areas. One which of course does revenue mining in urban areas and the other one which helps us do the rural marketing whose only jobs are

- a) to make sure we develop the products which are consumer based
- b) talk to the customers in their language

There is a lot of marketing activities that are localized. And we love to take non-tried methods for communication because of the reach of the media. There are lots of media dark spots, so you have to really innovate. For distribution, it is not unusual to use bullock carts, camel back and rickshaw cycles. We participate in local bazaars and market areas, important congregation areas for marketing activities.

In many villages we are bringing in coverage for the first time, so we have this very basic task to explain the functions of a handset. Retail education for our associate retailers is one important program, and this is complemented by consumer education efforts. So we have got two separate business groups for rural marketing. One is working on the retailer and the associate distributor education training and certification. The other is working on creating demand by telling people what mobility can do in life and how it can make life better.

**Anderson:** How have you innovated around product and tariffs?

We align products to the rural market. Contrary to the belief that as you go down to the socio-economic strata the revenue should fall, we have discovered that revenue only gets better. The lower that you go down the income strata, the higher is the need for communication. Because, these are the people who are cut off from communication, this drives consumption. I have already discussed how availability of the product becomes very important for these more isolated communities. But you also need to drive affordability. If you bring in simplicity of tariffs and leave the choice in the hands of the consumer to select tariffs, I think you are doing what it takes to enhance revenue. So we went on to innovate two products.

- One is a chota recharge, what is called a micro recharge. When the industry had a minimum norm of Rs.200 as a minimum recharge, we went down to Rs.10. That was the first in the market. Because we wanted to align the consumption to the income cycle from urban centering monthly income to a daily wage. We wanted to make product lucrative, so that was the first innovation we did which really enhanced consumption.
- The second innovation was to simplify tariffs. We went on to tell consumers that if you want to talk worth 10 paise or 15 paise or 20 paise or 30 paise, there are two to 3 offerings which are special tariff vouchers. If you invest one time money in it for the month, get Rs.10 or Rs.20, or Rs.30 for the entire month, you are enjoying a very simple and a flat and a very low tariff.

These are the two innovations which really supported our affordability platform. Micro-recharges, simplicity of tariffs and ease of pre-paid registration went on to create extra demand for us.

**Anderson:** What are the challenges and opportunities moving forward?

**Singh:** We have developed a good understanding of the mass market, in which we are managing a good marriage between network, distribution overlays and products that excite the consumers. We are now moving to the next level - to overlay differentiated consumer service on our model, and to explore the opportunities to provide services beyond voice and basic data. I think that these two aspects will provide the future levers of competitive advantage in the market.

### **Discussion**

The experience of Hutchison Essar in India provides some important lessons for mobile network operators in other developing markets who are hoping to serve the rural poor. First, Hutchison has recognized the value of corporate and non-corporate partners. They have proactively established relationships with individual entrepreneurs, and have recognized the value of leveraging existing local institutions. The company has provided training to local entrepreneurs and other partners, and has seen gaps in local infrastructure or missing services as potential opportunities rather than barriers to growth.

The Hutchison example also provides an insight into the dilemmas facing many mobile network operators in the developing world – they can choose to focus on the low-hanging fruit – the A & B segment populations - often without the need to invest significantly in additional CAPEX or to add significant organizational complexity through a more widely segmented approach, and meet political calls for universal access through the provision of shared-use business models. These shared use models can be profitable, but will never provide the kind of true universal access to which many developing countries aspire.

Or, as is the case with Hutchison operators can pursue real business model innovation to increase household *and/or* individual mobile penetration – in India, in an intensely competitive and innovative market, it is quite possible that we are seeing a trend towards true individual ownership *and* usage amongst the poor. But to achieve true innovation operators will need to recognize that the approaches that they have perfected in serving higher-income segments might actually prove a *disadvantage* as they move to serve the poor. As the Hutchison Essar case demonstrates there is sometimes a lot of *unlearning* to do as mobile network operators race to the bottom of the economic pyramid.

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Exhibit 1: The Challenge of Serving Low-income Rural Markets

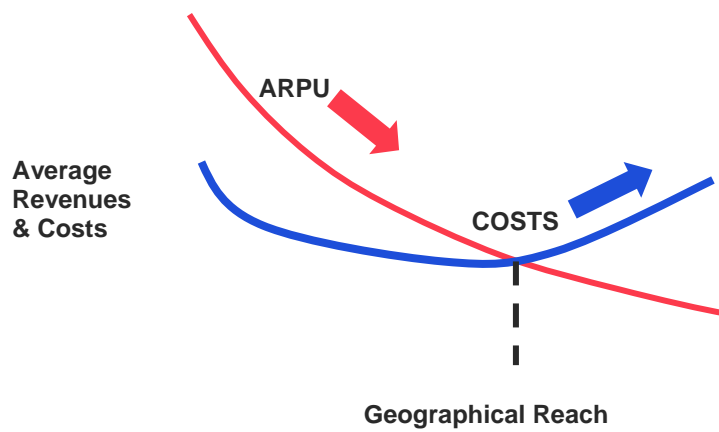
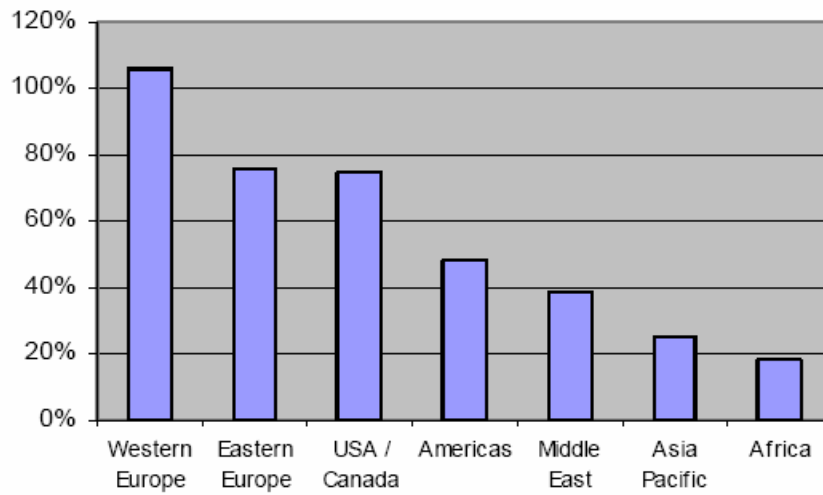


Exhibit 2: Mobile Penetration in Developed and Developing Market Regions, Q2 2006



Source: GSM Association Universal Access Report, 2006.