

## How India reached critical mass for mobile services: “Now almost anyone can afford it”

With the lowest tariffs in the world, they are the masters of low-cost operations. Ericsson Business Review met with representatives of leading Indian mobile operators to find out how you can successfully do business in a market where the majority of customers have low incomes. Finding this formula has triggered explosive growth.

**AT NOON, THE BAKING HOT** streets of Delhi bustle with traffic. People are rushing around in cars, on three-wheelers and bicycles. Most of them are carrying mobile phones, which is quite a new phenomenon. From being a lagging and problematic market, the number of mobile users in India has risen at an amazing rate in the past year.

These are busy days for players in the Indian mobile market, with rural expansion and cost reductions on the agenda. TV Ramachandran, director general of the Cellular Operators Association of India (COAI), has worked in the telecom industry since the first mobile phones reached the Indian market in 1994.

“The past few years have seen exceptional growth by any global standard,” he says. “And we are far from finished – there is definitely more growth in sight for the mobile market.”

India is experiencing the fastest mobile subscriber growth in the world. A year ago there were 80 million mobile subscribers; now there are about 170 million. Subscriber growth has been a staggering 6.4 million per month, but the pace is still increasing. In April 2007 alone, there were almost 7.5 million new subscribers.

“The growth rate is picking up even faster this year and we predict that soon there will be about 8.5 million new subscribers every month – adding at least

80 million more subscribers in 2007,” Ramachandran says. “We have not seen the end of this growth, and the national goal of a total of 500 million mobile subscribers in 2010 will happen, of that I am sure.”

COAI is working with all players in the mobile market: operators, suppliers and authorities. Its objectives are to establish and sustain a good cellular infrastructure that enables affordable mobile communication services all over the country. Today a large part of the population remains unconnected, with only 60 percent of the population and 40 percent of the land mass covered.

### World's cheapest calls

Tariffs have fallen drastically in the quest for customers, with calls as cheap now as USD 0.01 per minute.

“People in India today are not without cellular services because they cannot afford them,” Ramachandran says. “Almost anyone can afford them. The problem is that people – especially in rural areas – are waiting for mobile services to reach them.”

The provision of mobile services at a low cost has been a necessity for Indian operators, Ramachandran says.

“India is a price-sensitive market and the forces of competition require us to provide low-cost services. The competition is extremely intense, which is unique in a



TV Ramachandran, director general of the Cellular Operators Association of India, COAI.

developing economy such as ours, and operators have had to cope with that.”

Indian mobile companies have coped, and business is healthy – despite the lowest tariffs and lowest ARPU (average revenue per user) in the world. For the marginal, low-end customer, ARPU is USD 3-4 per month. Overall, ARPU is USD 7-8. How do operators manage? By reducing costs, Ramachandran explains – for instance, by being innovative at outsourcing non-core operations, such as IT and network operations. In addition to that, operators have reached customer volumes that give them substantial economies of scale.

Consequently, it is possible to offer low-cost services to India's population of 1.1 billion people. However, with only 18 percent penetration, many people are still beyond the reach of mobile services. With profit-



## ❖ ...“Now almost anyone can afford it”

ability expressed in EBITDA (earnings before interest, tax, depreciation and amortization) the margin is 35-40 percent, which is high compared with many Western companies.

“But despite the profitability and low costs, the pressure is great,” Ramachandran adds. “This is largely because there is so much network expansion left to do. Building a network in a rural area is expensive, and this is significant since so much attention is now focused on this kind of expansion. Over the next two years, Indian mobile operators are to plow USD 20 billion into network expansion. That’s a huge amount, and operators are not generating enough profits for that.

“Even with the lowest tariffs and ARPU in the world, our profitability margins should be sufficient. In the Western world they would jump with joy if they had that, but it is not enough for India. Why not? Because in Western countries, the networks have already been rolled out, but we need to invest for expansion, so our capital expenditure is very high. To fund this expansion, we would need profit margins of at least 50-60 percent.”

Government policy is now in favor of mobile operators, but it has not always been so. Looking back, India has been a difficult market for operators, with complicated laws and regulations that hampered growth. The market was characterized by high tariffs and rigid bureaucracy. This changed with the launch of the National

Telecom Policy in 1999. Operators, of course, still feel that the economic burden of taxes and charges has to come down further. They also call for less regulation because the industry has matured. But even if they disagree in some areas, there is now a dialog and a working relationship between the industry and government.

“We have an excellent private-public partnership running in India,” Ramachandran says. “Of course we also have our differences, but the government and regulators respond to us. They are also being very innovative – for example, when it comes to rollout in rural areas.”

### Sharing makes sense

The government’s goal is to reach 500 million mobile subscribers by 2010, which means adding 330 million in only three years. To make that happen, costs have to be cut, and COAI is an active partner with the government in many projects. A big part in the regulatory scenario for rural areas is the Universal Services Obligation (USO) fund, controlled by the Department of Telecommunication, which gets 5 percent of all revenues from operators and license fees. The fund, now worth more than USD 1 billion, is being made available to private operators that want to expand their rural networks.

Infrastructure sharing is another big issue – for example, the government brought in a system of mandatory sharing of base station towers. There are 8000 sites



Sanjeev Aga, CEO of Idea Cellular and chairman of COAI.

around the country, all subject to an individual tendering process with competing companies. Every new rural tower has to be shared by three operators. This cuts capital expenditures (for building the tower) dramatically, and reduces operating expenditures (of running the site) too. In the end it reduces the long-term costs for all operators.

To limit the number of towers in cities and residential neighborhoods, six or seven GSM and CDMA operators share each tower. The objectives are the same as for the rural scheme: to reduce capital and operating expenditures. These are private initiatives being promoted by the government and the COAI in a project called MOST (Mobile Operators’ Shared Tower). The initiative aims to ensure efficient growth and development in the sector, while limiting the number of towers that can blight the environment and skyline.

## Plants fuel networks where there is no electricity

**INDIA IS A HUGE COUNTRY**, with vast swathes of countryside. One obstacle when building rural coverage is power supply. That is why operator Idea Cellular, together with the GSM Association and Ericsson, joined forces for a biofuel project.

Sanjeev Aga, CEO of Idea and chairman of COAI, says: “In some rural areas, mobile connectivity is achieved before electricity connections. Even where there is electricity, it is often unstable, so we need many backup systems.”

The project started in February 2007, and will continue for at least six months. There are 10 sites in Pune, in the state of Maharashtra, testing the feasi-

bility of non-edible, plant-based fuels such as cotton and jatropha, which is a shrub. This is the second biofuel project of its kind; the first one started in Nigeria at the end of 2006. The expectation is that the project will prove that it is possible to produce biofuels locally, avoiding the need for transportation.

“We think it is possible to do this on a commercial scale, and it may open access to markets we would not otherwise enter,” Aga says. “I believe that it will help expand the market in new parts of the untapped rural market. If it only works in 10 percent of that market, it would still be good.”

Cooperation is a key word for players in the Indian mobile market. In the chase to cut costs, there is cooperation to an extent not seen in other parts of the world. To explain India's special blend of cooperation and competition, Ramachandran uses a word made up for this phenomenon: co-opetition.

"In India, we have to play by the principles of co-opetition. We might fight like hell in the marketplace, but there are so many areas where you can collaborate, which helps all players," he says.

There are various innovative projects going on that will help reduce costs in the long run. Mobile instant messaging is one example where India is doing what nobody else in the world has done so far: a common mobile instant messaging platform for all GSM operators. Operators shared the costs of developing the platform, which customers can use regardless of operator.

Another innovative project, and example of public-private participation, is that of Interconnect Exchange, which aims at enhancing interconnection among service providers.

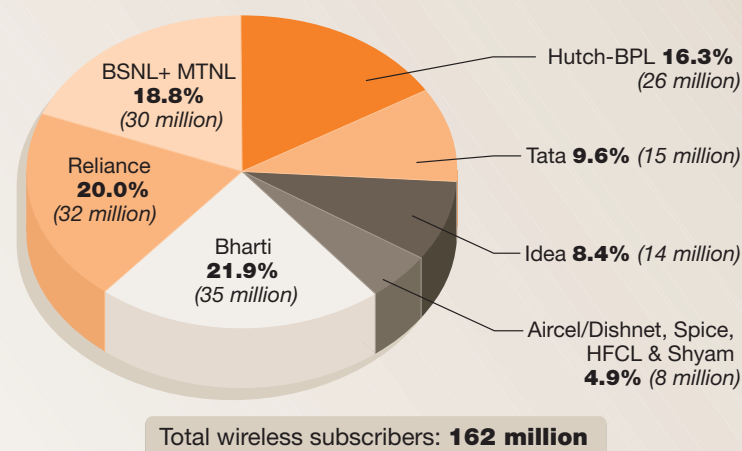
#### Cheaper than a bicycle

The innovations do not stop there. With telecom penetration so low, voice has been the preferred service so far, and data services are only just starting to pick up. There is also a large youth-segment that is fueling growth – 75 percent of users are under 40 years of age. Customer demand is growing and operators have to be inventive about new services, looking at new applications to allow the market to grow, such as m-commerce (mobile commerce).

India is closely involved in a global project for mobile money transfers, which will deliver cost-effective services for users. Bharti, the biggest Indian operator and the chief sponsor of the project, is leading this initiative with State Bank of India. COAI has been involved in this project as a coordinator. The m-commerce application will allow users to use their handsets for money transfers. The project is still at an early stage, and it will probably take three to four years before it is up and running, but it is thought to hold great promise for India.

## Indian market shares February 2007

Wireless share in percent (subscribers in million)



## Key indicators for GSM Q4 2006

Variation in key indicators over last quarter

Subscriber base (million)	105.43	↑ 15.8%
Share of pre-paid (%)	86	↑ 2.2%
Incoming minutes of use (per sub. per month)	246	↑ 3.8%
Outgoing minutes of use (per sub. per month)	208	↑ 11.1%
Outgoing SMS (per sub. per month)	48	↑ 0.3%
ARPU Rupees per month (USD 7.7)	316	↓ -6.2%

"We have to cooperate with all stakeholders, not only service providers but also companies outside telecoms, such as post offices, banks and credit-card companies," Ramachandran says. "We are scraping at the bottom of the barrel with low ARPU; it is essential that we find ways of helping operators to reduce costs in the long run."

Operators must also be innovative in terms of acquiring and retaining customers. India is a predominantly pre-paid mobile market, and cost of acquisition is about USD 5 per customer. Churn is high, with subscribers changing operators often.

Operators have to cater for a business model where customers do not necessarily buy a lot of pre-paid credit; people often buy micro top-ups worth about USD 1-3.

Idea Cellular is one of India's fastest-growing mobile operators, with a market share of 8 percent. Sanjeev Aga, CEO of Idea Cellular and chairman of COAI, points out three factors that explain the amazing mobile growth of the past year:

"The cost of entry, the cost of staying connected and the increase of coverage hit critical mass at the same time," he says. "A new handset now costs as little as USD 20



## ➤ ...“Now almost anyone can afford it”

– that is cheaper than a bicycle. For only USD 3 a month, you can stay connected.”

Aga paints a picture of the Indian market, saying that operators have to be innovative in the choice of products they sell. But India is not a homogenous market. Service providers have to cater for both voice and data services for customers who could be casual laborers or businesspeople. Many parts of India want inexpensive, reliable, basic products such as voice and SMS. These low-income customers also want Bollywood music, a popular product for the masses which is seen not only as entertainment but as a necessity.

Operators need new services to expand their markets, Aga says: “It is important to find services that are affordable for different segments. Operators offer, for example, specific cards aimed at housewives, students and the youth market.”

“There are special cards that give you a ‘grace period’ when the money on the card runs out and you cannot afford to top it up straight away. This courtesy targets customers on low incomes who should be able to trust the service and pay when they can.”

Such a service caters for people on lower incomes, making certain customers never have to be unsure of connectivity. Another

product keeps customers connected without them having to pay a lot of money: unlimited incoming calls for a price of 99 rupees (USD 2.40) per month. Customers can pay more if they want extra services, but know they are always connected and reachable. New services can also be sold in new ways. For example, students can recruit other students to become customers.

The choices made by the telecom industry in developed and developing markets are different, Aga concludes. The bulk of mobile subscribers in India are pre-paid, while in the US and Europe they are post-paid. There are also different costs for customer acquisition, service delivery and distribution channels. But with all the experience and new solutions of the past few years, Aga feels that India now has a lot to teach its counterparts in Western markets.

### Leaving the West in the dust

“Ten years ago, Europe and the US were a long way ahead of us, but today I believe India is an evolved market,” he says. “I think we have been especially progressive

in two areas: in cost of acquisition – what we spend to get a customer – and cost of service delivery.”

The Indian market has developed an effective, low-cost solution for distribution, with more than 700,000 shops and kiosks selling connections and vouchers for micro top-ups. India is a pioneer in this field: a customer should need to walk only 100 to 200m to find an outlet selling connections and top-ups. This has been an effective approach to low-cost distribution and low-cost acquisition in both rural and urban areas.

“With vouchers in micro units, it is ‘money over the air,’ and this technology gives us very wide distribution. The small shopkeepers sell the vouchers, which don’t occupy any space in the shop,” Aga says.

“The Western markets pioneered mobile services, but they haven’t changed the selling paradigm. Because of handset subsidies, they incur much larger cost of acquisition. This results in higher tariffs per minute and long-term contracts with subscribers. The Indian model treats mobile service more like a consumer product for the masses.”

Competition, cooperation and consensus here are all done in the Indian way. There is, and will continue to be, fierce competition between mobile operators in India. There are many players: seven nationwide operators and several regional ones.

Only time will tell how India will cope with the next stage of expansion, but there are definitely many operators, including foreign ones, that have now started pitching for a share of this fast-growing and innovative mobile market.

**Helena Jansson**



## Affordable calls transformed Partafi's life

**PARTAFI SINGH HAS BEEN** a taxi driver in New Delhi for almost 40 years. He has had a mobile phone for the past three years, and now easily picks up business travelers at airports and hotels. His earnings have increased since he got a mobile phone.

“I am only a call away from my customers,” he says. “Their plans can be flexible and I can come and get them whenever they want me to.”

The mobile phone has also made a great improvement to Singh’s personal life. He can stay in touch with his wife and children, who live many kilometers away in his home village in the mountain state of Himachal Pradesh.

“I am often away from home for three months at a time, and then at home for a month,” Singh says. “It is hard, but since my calls only cost me 2 rupees (USD 0.05) a minute, I can talk to my family quite often. I can afford to speak to them for 50 rupees (USD 1.20) a day.”

