

Is this the toughest job in telecoms?

A population of over one billion. Almost 20 operators battling for dominance. And two hundred thousand new mobile subscribers – **added every single day**. Regulating the Indian telecoms market is **not for the faint-hearted**, but in Dr. Rahul Khullar, Chairman of the Telecom Regulatory Authority of India, ICT industry players have found **a uniquely dynamic** and committed supporter.

“It’s more important than ever that regulators keep their ear to the ground and have a clear sense of the reality around them”

THIS EXCLUSIVE INTERVIEW with Dr. Khullar was conducted at his headquarters in the teeming heart of New Delhi – a true megacity that exemplifies the vast possibilities and weighty contradictions of 21st-century India. With today’s most pressing ICT issues driving the conversation, *Ericsson Business Review* is honored to present the inimitable insights of one of the most distinguished – and outspoken – personalities in global technology policy.

► **Dr. Khullar, what do you consider to be the unique characteristics of the Indian telecoms market?**

It comes down to four things – size, data, pricing and one big taboo. First of all, there are over a billion people in India, and the industry is not even close to capturing the full potential of this enormous market. Teledensity here averages 70 percent, and in rural areas it’s around 45 percent. But since teledensity actually measures the density of SIM cards, and given that most people who own a SIM card usually carry at least one more, we really have a situation where only about half the population is today connected.

Secondly, the data revolution in India is just getting started. We lost a number of years due to a combination of policy inertia and strategic mistakes, and other markets have moved a long way ahead of us. But I now see device penetration and

network performance, together with more flexible pricing options, at last increasing to a level that will spur huge pickup of data. At the same time, the market reality is such that any operator who tries to fleece people with high data prices just won’t make it. And this brings me to the third characteristic, which is that prices in India will remain low. Even if there may be some room for price hikes, since realizations are well below headline tariffs, operators in India will have to devise mechanisms to achieve the margins to which operators elsewhere might aspire. They are going to have to ride on volume – at least in the short term.

The other key aspect of the Indian market is something that, until recently, nobody really wanted to talk about. The simple fact is that there will be a major shakeout in the telecoms business at some point – and that point is moving closer every day. For too long, public-policy perception has been dominated by an extreme view that any competition is good competition and that if India has 20 operators, so much the better. People are slowly starting to wake up and understand that if our Hirschman-Herfindahl Index score – an indicator of the amount of competition within an industry – is totally out of step with the rest of the world, then we need to do some serious thinking. After all, most countries do just fine with three or four operators, and nobody there complains about the lack of competition.



When this consolidation finally takes place, there will be two immediate consequences. Spectrum availability will increase and fragmentation will decrease, since there will be a greater amount of spectrum with a smaller number of operators. Secondly, there should be a positive impact on margins. Overall, I think the result will be a marketplace that is a much cleaner, neater place to operate.

► **The Indian government has set some very ambitious targets for coverage. Do you believe that aiming for 100 percent coverage all in one go is the correct approach?**

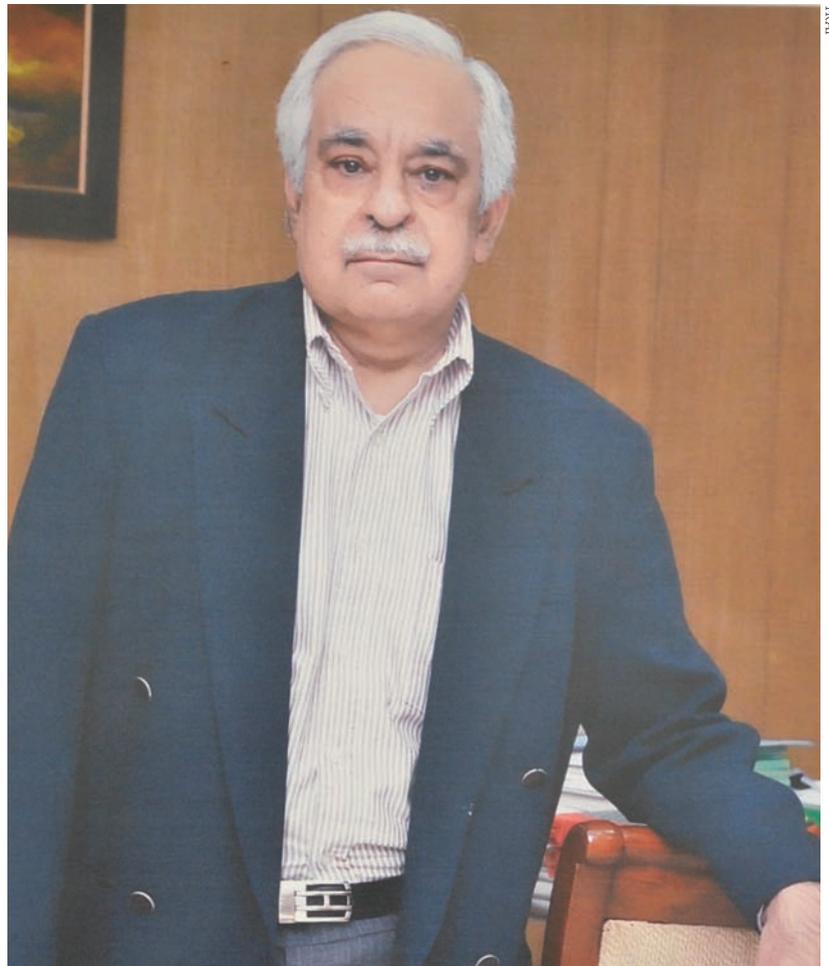
Let's separate two very different issues here. On the one hand, it is simply unacceptable that even after 20 years of the mobile revolution, there are 50,000 villages in this country where nobody can pick up a telephone and make a call. That is a huge problem in its own right and it has to be fixed. The Authority has done a fair bit of work on this and the government is now acting on our recommendations. I have no issue whatsoever with setting ambitious targets here – this project needs to be done quickly and we must find the money to do it.

But broadband is an entirely different kettle of fish, and the dimensions of this problem have not yet been fully taken on board. When it comes to broadband, infrastructure can only be one component of a wider program – you can never fully bridge the digital divide just by laying fiber. As a citizen, what am I going to do with it? I can't afford a PC or tablet – and even if I could, what am I going to get on it and how will it make my life better? We seem to have lost sight of this in a mad rush to put fiber infrastructure in place as fast as possible.

It's the applications and services that ultimately matter. These should be both relevant and accessible – which is a huge task from a linguistic point alone, given that India has more than 20 official languages and even more dialects. And for me, there's no doubt that principal actors need to be co-opted in a much more systematic way if any of this is going to work, both from an infrastructure and a content perspective.

I'm not talking only about the telecom operators, but a much larger swathe of industry. But let's start with the operators. Why not start a dialog with them and say: look, we're laying fiber up to a point, why don't you contribute and hook up this village on your own? And if one of your peers does the same with the next village, surely you can reach a commercial agreement to access each other's networks? Everybody wins – the networks remain yours, the government crosses two more villages off the list and the social objective is achieved.

Even more importantly, once the fiber is available, the operator then starts thinking about how to make money from it. That naturally leads to an increased interest in providing services that will



TRAI

attract customers and offer a return on investment. This opens the doors for application developers and IT players – suddenly, you have a broadband ecosystem that might actually be useful to people's lives. And speaking of the IT industry – in which India has enormous strengths – I cannot understand why it is still not being co-opted properly. These companies devise world-beating, completely customized solutions every day. So the very least we can do is ask them how to approach a problem like e-health or e-education in 29 states with differing levels of development.

So your question breaks down into two components, and I have no doubt that the first is much more important. The second, however, requires a lot more homework and thinking. In general, I think we need to be pragmatic in terms of targets, because otherwise we're just setting ourselves up for failure. For me, it is better to set more reasonable targets, rather than aim too high, never get there and breed only despondency.

► **What is your assessment of the Indian spectrum situation today?**

It's important to emphasize that pricing any asset is very difficult, and there's always a real risk of making mistakes. I take no delight in being

“You can never fully bridge the digital divide just by laying fiber”

asked to do this job. As an Authority, we have made a great effort in recent years to bring method to the madness and to base things on some kind of logic. A sceptic may counter that the policy system is simply operating at a lower level of craziness today than in the past. But I am convinced that we have been fairly successful in introducing a better degree of order and sense.

We have been very clear in our recommendations and public articulation, and I believe that, by and large, the industry understands how we think and the way we determine valuations. They trust us not to do anything arbitrary. When we have recommended certain prices, nobody has got up and complained that the figures are unreasonable. The auctions in early 2014 basically followed our recommendations, and there were at least 10 areas of spectrum where the market cleared at the floor price or higher, which in a sense means we got the baseline right.

That said, setting the reserve price correctly is just part of the equation. You must combine it with a matching supply of spectrum, with sufficient back-up in a range of bands, in order to stand a chance of seeing true price discovery. And this is a big challenge in India, which has such tight controls on supply. If we could ease up on the supply, there would be very few takers if prices were unrealistic. But this is where the political imperatives come into play. As a regulator, there is always a trade-off between meeting the government's fiscal demands and helping the industry to grow, and you have to find a way of balancing both considerations.

However, I think a recognition is slowly taking hold that you cannot treat the telecoms sector like a milch cow forever. If you never give operators sufficient margins then eventually the investment will stop, and at that point your Digital India vision will really go up in smoke.

► **Does it make sense to assign spectrum bands to specific technologies?**

No. The Authority has been technology-agnostic in terms of spectrum bands for at least five years. But we need to understand that wider awareness levels are often very different, and that this can have unexpected consequences. For example, the 1800MHz band was previously used for 2G, and just the other day I saw a newspaper article referring to this as 2G spectrum. This can be a potential problem when somebody wants to buy this band for use with another technology, because the perception can feed into pricing expectations. The fact that one particular technology was once deployed on this spectrum cannot be the foundation for pricing it when assigned to another technology.

Technology agnosticism, though, is no excuse for technology ignorance. It's more important than ever that regulators keep their ear to the

ground and have a clear sense of the reality and the trends around them. You can't really do much more than that. In an industry that changes virtually every day, how can we know what will happen three years from now? Anybody who claims they can predict the shape of the telecoms landscape in 10 years is probably having a pipedream – and I include most of the current discussions around 5G in that. All you can do is think two to three years ahead, stay aware of the developments and factor them into your decision-making as best as you can. But whatever you do, please don't tie spectrum to a particular technology.

► **The current telecoms industry debt is around INR 2 trillion. A recent report from Crisil states that operators need to increase average revenue per minute (ARPM) by 5 paise just to service incremental debt – all in a highly competitive market. Is this a sustainable model?**

I do not believe this is a sustainable model at all. It's partly a product of spectrum auctions, but also of cumulative investment decisions relating to tower companies and asset acquisitions, to give just two examples. There is a definite industry movement to offload some of this debt, but it's too early to say how things will pan out. It could also be a problem for the banking sector. Suppose a bank lends an operator money to purchase spectrum – what is the collateral? Spectrum is not only something intangible, but the operator has merely bought the rights from the government to use it for a certain period of time. So there's a distinct danger of the number of non-performing assets on the banks' balance sheets mounting dramatically over the next two to three years as the industry shakeout starts to take hold. My hope is that the transition is not too disruptive, but as a regulator, there's only so much we can do to address this particular situation.

► **Do you think measures such as ARPM or average revenue per user (ARPU) are still relevant quantifiers of operator performance?**

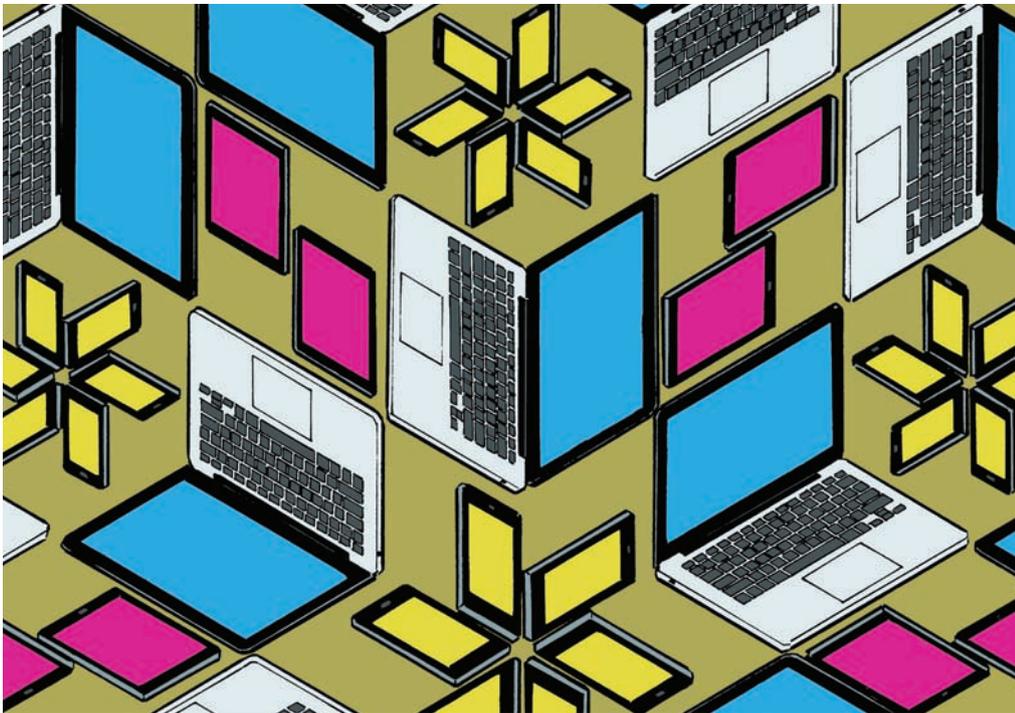
I am actually quite comfortable with ARPU or ARPM as measurement tools, and have no problem with their continued use by the industry. Everybody understands them, whether they're in Washington or Mumbai. Where I do have a problem is the prospect of transitioning to something else – whatever that might be – too quickly. If there is really a need for change, pre-announce it a long way in advance so that everybody has time to get used to the idea. The Indian government recently changed the basis for calculating GDP, and the result has been confounding chaos. What should have been a managed transition has been completely unmanaged, and these statistics are not viewed as credible. Now if that can happen to something like national income statistics, imagine if you were to do something radical for a business like telecoms.

BACKGROUND CHECK

► **Dr. Rahul Khullar** joined the Telecom Regulatory Authority of India as Chairman in May 2012. Prior to joining the Authority, he was Commerce Secretary in the Ministry of Commerce & Industry, Government of India. A permanent civil servant who joined the Indian Administrative Service in 1975, he has served in various capacities in the Central and State Government, including Secretary in the Department of Disinvestment at the Ministry of Finance, Director in the Prime Minister's Office and Private Secretary to the Finance Minister. He was also Development Commissioner for Delhi, Commissioner of Sales Tax, Delhi, and Principal Secretary (Planning), Delhi.

Dr. Khullar was Chief Negotiator for India in the Doha Round of multilateral trade negotiations at the World Trade Organization, and for the free trade agreement with the European Union. He worked as a professional economist in the Asian Development Bank (ADB) in Manila, the Philippines, between 1994 and 2000, where he was successively Lead Economist for the Pacific, Philippines and Central Asia. He also served as Senior Economist in the Strategy and Policy Office attached to the President of the ADB.

He has a PhD in Economics and has been a Visiting Professor in the Department of Economics, Boston University (1990-91), and a Lecturer at the Kennedy School of Government, Harvard University (1982-84), both in the US.



GRAHAM SAMUELS / AGENT BAUER

“Operators should not be satisfied with what they have today. The market is already there for the taking”

► **Do you see any difference between regulating a telecoms industry and what is fast becoming a digital marketplace?**

I think there is a very big difference indeed. The major change is that as the convergence between broadcast, internet and media accelerates, we will probably require some kind of omnibus regulator. It just doesn't make sense to have different regulators when previously separate channels start merging into one. In some jurisdictions, it borders on the ridiculous that the regulator has no say about what gets published in the newspapers, but is required to act as soon as the exact same content makes it onto the internet.

On the other hand, if you don't want to go down the omnibus route, you should either formalize the interactions across regulators, or divide powers in such a way that one agency is responsible for all issues relating to carriage, and another relating to content.

None of these options are particularly straightforward, and drafting the relevant legislation will be a very tricky business, but these are the issues that need to be thought through properly. We are still a long way from this kind of convergence in India, and this buys us some time to get things right. The government could push through legislation tomorrow, but 90 percent of the country would not relate to it. But merely because it hasn't happened yet should not mean that we cannot afford to give these questions very serious consideration.

► **It has been suggested that whereas good companies create products, great companies create markets. Is it realistic to expect Indian companies – whether operators or other ICT players – to create markets?**

I completely accept this story – you only have to look at how Apple built entirely new markets around apps and tablets, to take just one recent example. But in India, the question for companies is slightly different: very simply, given the size of the market that already exists, why aren't they capitalizing on it? As I explained in my answer to your very first question, this is a country of over a billion people in which barely half the population is connected. The more ambitious operators will eventually wake up to the reality that they could be doing so much more, and that they should not be satisfied with what they have today.

So I think the market is already there for the taking. And I have absolutely no doubt about the entrepreneurial ability and the creativity of my Indian brethren. What they need more than anything is a milieu in which they can actually get it done. If we are going to hamper them at every stage by policy indecision or red tape, or by impractical regulations, then we are in a very real sense choking the initiative and drive that is so vital for the future of our country. That is something we just cannot afford to let happen. ●

INTERVIEW BY NICHOLAS SMITH