Special report:
Telecoms in emerging markets

Mobile marvels

Poor countries have already benefited hugely from mobile phones. Now get ready for a second round, says Tom Standage (interviewed here)

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BOUNCING a great-grandchild on her knee in her house in Bukaweka, a village in eastern Uganda, Mary Wokhwale gestures at her surroundings. “My mobile phone has been my livelihood,” she says. In 2003 Ms Wokhwale was one of the first 15 women in Uganda to become “village phone” operators. Thanks to a microfinance loan, she was able to buy a basic handset and a roof-mounted antenna to ensure a reliable signal. She went into business selling phone calls to other villagers, making a small profit on each call. This enabled her to pay back her loan and buy a second phone. The income from selling phone calls subsequently enabled her to set up a business selling beer, open a music and video shop and help members of her family pay their children’s school fees. Business has dropped off somewhat in the past couple of years as mobile phones have fallen in price and many people in her village can afford their own. But Ms Wokhwale's life has been transformed.

Ms Wokhwale prospered because being able to make and receive phone calls is so important to people that even the very poor are prepared to pay for it. In places with bad roads, unreliable postal services, few trains and parlous landlines, mobile phones can substitute for travel, allow quicker and easier access to information on prices, enable traders to reach wider markets, boost entrepreneurship and generally make it easier to do business. A study by the World Resources Institute found that as developing-world incomes rise, household spending on mobile phones grows faster than spending on energy, water or indeed anything else.

The reason why mobile phones are so valuable to people in the poor world is that they are providing access to telecommunications for the very first time, rather than just being portable adjuncts to existing fixed-line phones, as in the rich world. “For you it was incremental—here it’s revolutionary,” says Isaac Nsereko of MTN, Africa's biggest operator. According to a recent study, adding an extra ten mobile phones per 100 people in a typical developing country boosts growth in GDP per person by 0.8
percentage points.

In 2000 the developing countries accounted for around one-quarter of the world’s 700m or so mobile phones. By the beginning of 2009 their share had grown to three-quarters of a total which by then had risen to over 4 billion (see chart 1). That does not mean that 4 billion people now have mobile phones, because many in both rich and poor countries own several handsets or subscriber-identity module (SIM) cards, the tiny chips that identify a subscriber to a mobile network. Carl-Henric Svanberg, the chief executive of Ericsson, the world’s largest maker of telecoms-network gear, reckons that the actual number of people with mobile phones is closer to 3.6 billion.

But exact numbers are hard to come by, not least because of the continued rapid growth in the global number of subscribers. In the year to March 2009 an additional 128m signed up in India, 89m in China and 96m across Africa, according to TeleGeography, a telecoms consultancy. Numbers in Indonesia, Vietnam, Brazil and Russia also grew rapidly (see chart 2). China is the world’s largest market for mobile telephony, with over 700m subscribers. India is adding the biggest number each month: 15.6m in March alone. And Africa is the region with the fastest rate of subscriber growth. With developed markets now saturated, the developing world’s rural poor will account for most of the growth in the coming years. The total will reach 6 billion by 2013, according to the GSMA, an industry group, with half of these new users in China and India alone.

All this is transforming the telecoms industry. Within just a few years its centre of gravity has shifted from the developed to the developing countries. The biggest changes are taking place in the poorest parts of the world, such as rural Uganda.

**Not the usual suspects**

Three trends in particular are reshaping the telecoms landscape. First, the spread of mobile phones in developing countries has been accompanied by the rise of home-grown mobile operators in China, India, Africa and the Middle East that rival or exceed the industry’s Western incumbents in size. These operators have developed new business models and industry structures that enable them to make a profit serving low-spending customers that Western firms would not bother with. Indian operators have led the way, and some aspects of the “Indian model” are now being adopted by operators in other countries, both rich and poor. This model provides new opportunities, especially for Indian operators. The spread of the Indian model could help bring mobile phones within reach of an even larger number of the world’s poor.

The second trend is the emergence of China's two leading telecoms-equipment-makers, Huawei and ZTE,
which have entered the global stage in the past five years. Initially dismissed as low-cost, low-quality producers, they now have a growing reputation for quality and innovation, prompting a shake-out among the incumbent Western equipment-makers. The most recent victim was Nortel, once Canada's most valuable company, which went bust in January. Having long concentrated on emerging markets, Huawei and ZTE are well placed to expand their market share as subscriber numbers continue to grow and networks are upgraded from second-generation (2G) to third-generation (3G) technology, notably in China and India.

The third trend is the development of new phone-based services, beyond voice calls and basic text messages, which are now becoming feasible because mobile phones are relatively widely available. In rich countries most such services have revolved around trivial things like music downloads and mobile gaming. In poor countries data services such as mobile-phone-based agricultural advice, health care and money transfer could provide enormous economic and developmental benefits. Beyond that, mobile networks and low-cost computing devices are poised to offer the benefits of full internet access to people in the developing world in the coming years.

This special report will examine each of these three trends in turn. Each one is significant in itself but also has consequences for rich as well as poor countries. Together they could start a second wave of mobile-led economic development as powerful as that prompted by the original launch of mobile phones. Their spread in poor countries is not just reshaping the industry—it is changing the world.

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