

# Bangladesh: Asia's untapped mobile broadband opportunity

Next-gen services dependent on new spectrum and taxation rethink

Bangladesh has ten times the population of the average European country, while the average citizen's monthly income is less than one thousandth of the European equivalent. Yet the Asian country is one of the largest and fastest growing mobile markets in the world, and retains high-growth potential; currently only two out of five people have subscribed to a mobile service.

The country is home to 154 million people – falling somewhere between Russia (142 million) and Brazil (200 million) - with over 70% of the population living in rural areas on \$2 per day or less. Bangladesh is the ninth-largest market worldwide in terms of mobile subscribers in Q1 2013 with 62 million 'unique' subscribers (i.e. people) actively using 112 million mobile connections (i.e. SIM cards). Market penetration based on subscribers stands at just 40%, compared to 72% in Russia and 56% in Brazil. This shows tremendous room for growth, and explains why the country ranked 46th worldwide in terms of annual connections growth in Q1 2013 is posting double-digit growth while Russia (183rd) and Brazil (111th) both recorded low single-digit growth.

Bangladesh is one of the few countries in Asia where the nationwide deployment of high-speed mobile networks has yet to be realised (Pakistan is another). Over the past decade, the top four mobile operators (Airtel, banglalink, Grameenphone and Robi) – which between them make up 97% of the country's mobile connections market - have been offering data services solely on 2G-GSM networks. The regulator is expected to auction 3G spectrum in the 2100 MHz band in early September this year.

The introduction of mobile broadband networks is expected to positively impact the country's socio-economic development. According to a Deloitte/GSMA study, for a given level of total mobile penetration, a 10% substitution from 2G to 3G penetration increases GDP per capita growth by 0.15%. In addition, the World Bank estimates that mobile broadband has a higher positive economic impact than fixed-line broadband, particularly in emerging markets.

#### How to unlock mobile broadband opportunities in Bangladesh?

As has been the case previously in other developing economies, a number of factors have to be considered in order to foster the adoption of mobile broadband services in Bangladesh - from spectrum management to taxation.

The timely allocation of sufficient, harmonised and technology-neutral spectrum is a prerequisite to rapid mobile broadband rollout and adoption in any country. As noted in our recent analysis, <u>Asia's APT700 band plan leads the way to large-scale 4G-LTE growth</u>, the timely adoption of the Asia Pacific Telecommunity band plan for the 700 MHz band (APT700) could generate economies of scale that can bring down the cost of mobile devices and network equipment production, and also reduce interference issues along borders while promoting international roaming.

In September this year, local authorities in Bangladesh will auction a total of 40 MHz of

spectrum in the 2100 MHz frequency band (10 MHz has already been allocated to state-owned Teletalk) with reserve prices set at \$20 million per MHz. In contrast, 2100 MHz spectrum was auctioned at \$14,445 per MHz in Thailand in October 2012 and at \$1 million per MHz in Indonesia in February 2006. Even though circumstances at the time of auction in those markets were different, Bangladeshi operators are looking for more realistic reserve prices in order to avoid the situation seen in India in 2010 where mobile operators spent a total of \$15 billion on 3G frequencies.



## 2100 MHz band reserve prices (\$/MHz) vs ARPU

### Source: GSMA Intelligence

In such a low-ARPU market (less than \$2 in Bangladesh in Q1 2013), regulators should foster investors' interest by ensuring that mobile operators' spending on both spectrum acquisition and network deployments is aligned with potential return on investment. As has been previously noted in other markets – from Europe to India - mobile retail prices will climb in the face of unrealistically high spectrum prices and high taxation, slowing the pace of mobile adoption.

The Axiata Group told us that the upcoming spectrum auction "is a necessary enabler for deploying mobile broadband services", however, it remains cautious on upside as "price for spectrum coupled with challenging market conditions could limit Bangladesh's attempts to rollout mass-market mobile broadband". Overall, Axiata expects 3G services in Bangladesh to take off in two to three years.

High taxation is another factor in Bangladesh that is hindering current and future market growth. The country has one of the highest sector-specific taxation levels in the world, with operators paying up to 52% of their revenue in tax. In addition, since 2006, mobile operators have been paying an upfront tax on every new SIM connection – a tax that was revised from \$10 to \$8 per SIM in 2011 and further reduced to \$4 per SIM this year. Therefore, moving to a sustainable level of taxes and other state charges on the ICT sector is a prerequisite to rapid mobile broadband adoption in the country.

Axiata also noted that "there's a 10% to 15% upside in ARPU between a basic voice + SMS user and a data user in Indonesia and Malaysia respectively, so operators have an incentive to offer internet services". However, when applying this benchmark to Bangladesh, such an upside would only increase monthly ARPU from around \$2 to \$2.30 which is unlikely to offset high operational cost in the short term. The operator added that "a mid-end smartphone priced around \$200-\$300 is a substantial component of the average income of an individual", which is significant as "high smartphone cost limits mobile broadband traction".

#### **Democratisation of data**

Given the lack of fixed broadband infrastructure, mobile is the main gateway to the internet for most developing countries. Around a quarter of people in Indonesia, for example, actively access the internet over a 3G mobile connection (see figure below).

Bangladesh has reached a similar internet penetration despite negligible 3G use, with most people using the internet over a 2G connection via featurephones or low-end smartphones. This suggests a strong latent demand for mobile internet access that will accelerate via the availability of 3G and the enhanced user experience gained through a higher speed connection with lower latency.



# % of population with internet and 3G access, Indonesia and Bangladesh, 2012 Source: GSMA Intelligence, AlISP Indonesia, BTRC Bangladesh

Mobile operators and internet players are well aware of this, with the lines that define customer ownership increasingly blurred. Aside from core access to the network, mobile-enabled services targeting low-income populations are making use of mobile data, either through apps or the mobile internet. This has accelerated since 2011, particularly in the education, entrepreneurship and health sectors (see products and services tracked by Mobile for Development Intelligence, and Digital empowerment in the developing world), and we expect this to continue with increasing 3G coverage. Language and digital literacy remains a significant barrier in Bangladesh (literacy in Indonesia is relatively high at over 90%), although recent indications from the national telecoms regulator of its goal to expand internet access to near universal levels make an implicit case for government involvement to accelerate improvement in this area.

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