Regulating convergence of telecom technologies

ARIJIT CHAKRABORTI

THE telecom sector in general has seen several new technologies being rolled out in recent years. Around five years ago, third generation mobile telecommunications services, known as 3G, became operational in Bangladesh. In 2018, next generation services (or 4G) were launched in the country. At the same time, the capacity of the optical fibre network was increased substantially to support the increased bandwidth requirements of consumers.

The Bangladesh Telecommunication Regulatory Commission (BTRC) is the body responsible for regulating all telecom-related developments in Bangladesh. The recent rollouts of new communication technologies such as 3G and 4G were licenced and supervised by the BTRC.

The BTRC has also earned substantial revenue by selling licences to private mobile network operators (MNOs) and allocating spectrum to them. For example, the BTRC's revenue increased by 58 percent in the financial year 2017-18 from the previous financial year through the sale of 4G spectrum to MNOs. With the increase in the number of subscribers and usage of mobile telephony, some large operators may decide to buy additional spectrum to maintain service quality in general and to reduce the number of call drops in particular.

At the same time, technological advancements and entrepreneurial ambitions have set the stage for the next big rollout of communications—5G technology. This technology will offer unprecedented internet and data interchange speed to users. And while retail consumers are expected to start experiencing these improvements through faster video downloads, there are ample opportunities for the larger population to benefit by making full use of this technology. With the right kind of planning, the technology can bring unique benefits to consumers in Bangladesh.

Rollout of 5G will require deployment of small cells across the coverage area. Small cells use low power and short-range wireless transmission systems (base stations), which cover a small geographical area indoors or outdoors. They are likely to help in creation of a low latency network—the foundation on which high-speed data access can be provided to subscribers.

A low latency network can also be developed without deploying small cells. Modern satellite communication systems are capable of creating such a network. Some start-up companies in the US are already working on this and some have obtained licences from the regulator in the US to position more than 4,000 satellites in low orbits around the world to provide low-latency internet connections on the earth's surface as well as in the air space.

Telecom regulators around the world need to think of innovative ways to facilitate such rollouts. For example, there is a growing conversation in the US about the visual disfigurement of beautiful neighbourhoods with deployment of so many small cells. In such situations, some communities may opt for deployment of a low-latency network via satellite communications.

However, it seems that consumers tend to value speed and cost-effectiveness above beautification. In May 2018, PwC conducted a survey among 800 mobile and internet users in the US to understand their awareness of 5G technology and their expectations from its deployment. The top three expectations included fast data transfer speed, improved reliability of service and overall cost-effectiveness. But while 5G technology is capable of offering higher speed than wi-fi and is more reliable, achievement of these expectations will depend on how operators deploy the technology.

Deployment of 5G technology or any other low-latency network will involve further investments in infrastructure development. The BTRC has recently separated the licence to set up towers from the licence for mobile network operations. The licence to set up optical fibre networks is also separate. The regulator will, therefore, have to clarify who will be responsible for deploying small cells among these licencees, as well as the rules of collaboration among the licencees so that consumers in Bangladesh can avail cost-effective and high-quality services. For example, each small cell will need connectivity to an optical fibre network, which will require optical fibre network operators to increase their last mile penetration.

Innovation to solve localised problems will play an important role in delivering the benefits of these new technologies right down to the bottom of the economic pyramid. But what will need to be kept in mind is that although the technology is global, the problems faced in Bangladesh are largely local and will require localised solutions. The regulator can play a proactive role in creating an ecosystem for start-up companies to work on creating such solutions in collaboration with service providers, e.g. tower licencees, MNOs, optical fibre network providers, and other stakeholders.

Innovation will also be needed to create an affordable price point for a low latency network. The regulator may assume a proactive role in facilitating innovations, such as developing small cells that use solar energy to reduce energy costs and the carbon footprint. In addition, the regulator could allocate a part of the licence fees it collects to incubate such innovative solutions and make these deployable at reduced costs.

Technological interventions will also mean overlapping responsibilities for regulators. For example, several new healthcare solutions are expected to emerge with the rollout of 5G technology and enhanced connectivity among healthcare centres. Traditional telecommunications-based services such as telemedicine will get redefined due to wider scope of services through improved data connectivity. To achieve this, the regulators of health and communication services will need to collaborate to maximise benefits for the people of Bangladesh.

This new environment will require new regulatory capabilities, including inter-regulatory collaboration. Regulators will also have to rely more on technology to regulate their licencees. Regulatory Technology, also known as RegTech, is expected to play a significant role in boosting such capabilities. There is, therefore, a significant opportunity for Bangladesh to catalyse its national growth and inclusive digitalisation by using RegTech.

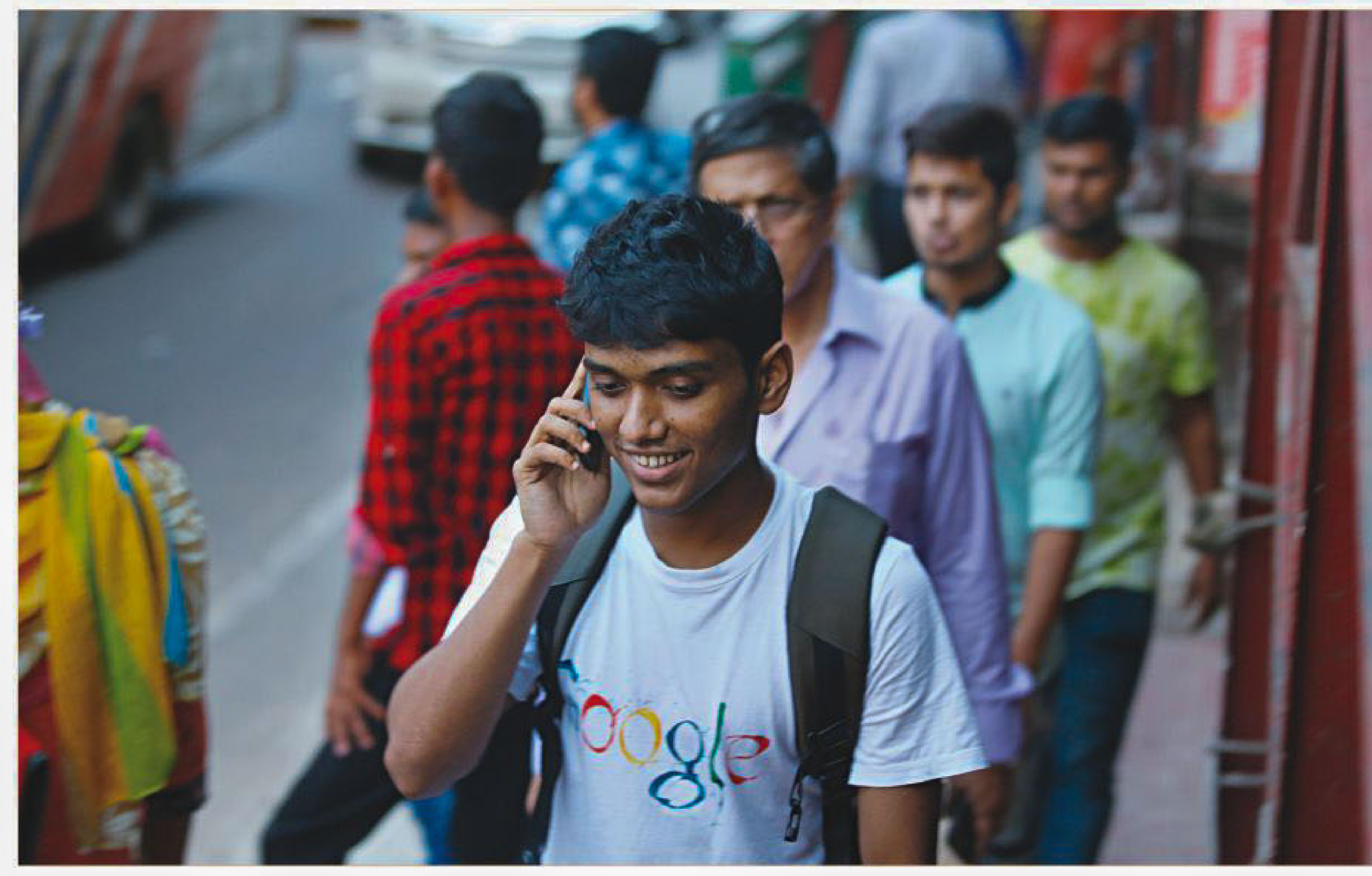
Bangladesh has made rapid progress in adopting new communication technologies and using these to deliver significant benefits to its citizens. A proactive outlook and regulatory planning will help the country accelerate the progress of adoption of such technologies and achieve many of the objectives of the Digital Bangladesh programme.

The writer is a partner at PwC. The views expressed here are personal.

PRIORITIES OF CONSUMERS

- **57%** want faster data speed
- **51%** seek reliable connections
- **50%** look for cost-effective data plans
- **35%** want better indoor and outdoor coverage
- **21%** wish for better quality of video calls

SOURCE: PWC, 2018 5G CONSUMER INTELLIGENCE SERIES FLASH POLL IN THE US



STAR/FILE

A man talks over his mobile phone in Dhaka. The telecom sector in Bangladesh has seen several new technologies in recent years.

A third of UK firms mulling post-Brexit overseas moves

REUTERS/FILE

Nissan technicians prepare doors for the Qashqai car at the company's plant in Britain.

AFP, *London*

ALMOST a third of British companies are considering moving or setting up overseas operations because of Brexit, according to a survey published Friday by business lobby group the Institute of Directors.

The IoD survey of over 1,200 company directors found that 16 percent had already decided to relocate or open operations abroad due to Brexit, while a further 13 percent said they were considering such plans.

Over a quarter of large businesses have already taken action or will do so in the future, compared with 12 percent of small businesses.

The finance, manufacturing and science sectors were the most affected, with a third of manufacturers planning to set up foreign operations.

The European Union looks set to benefit the most, with 91 percent of those planning new foreign operations looking to set up in the bloc.

"It brings no pleasure to reveal these worrying signs," said IoD interim boss Edwin Morgan.

"Change is a necessary and often positive part of doing business, but the unavoidable disruption and increased trade barriers that no-deal would bring are entirely unproductive," he added.

Britain's MPs voted on Tuesday to send Prime Minister Theresa May back to Brussels to renegotiate the unpopular divorce deal she struck with the EU.

Brussels has ruled out any big changes to the deal, leaving Britain staring at a no-deal Brexit with only 56 days left until the official departure date, which would lead to the imposition of trade tariffs.

"The UK's hard-won reputation as a stable, predictable environment for enterprise is being chipped away," warned Morgan.

"Our political leaders must keep this in the front of their minds as we enter this critical phase of negotiations."

Some 64 percent of IoD members export to the EU, compared with a national average of around only 10 percent of businesses, although many more rely on supply chains dependent on the bloc.

British industry is ramping up plans for a no-deal Brexit, with companies reporting on Friday sharp rises in both purchasing activity and stockpiling of inputs at warehouses.

"Brexit preparations were... a major contributing factor underlying the trends in input buying activity and stocks of purchases," according to the manufacturing Purchasing Managers' Index report released by information provider IHS Markit on Friday.

Inventory holdings increased at the fastest pace in the 27-year survey history, according to the report.

"Businesses did their best to develop forward purchasing programmes to avoid potentially disappointing clients and in case of a bad Brexit outcome," said Duncan Brock from purchasing body the Chartered Institute of Procurement & Supply.

Washington, Beijing all smiles on trade but doubts persist

AFP, *Washington*

THE United States and China radiated positivity after this week's trade talks but doubts persist about the chances of sealing the overarching deal Donald Trump wants.

After two days of high-level negotiations in Washington, President Donald Trump hailed the "tremendous progress," and the Chinese delegation said the talks had been "candid, specific and fruitful."

Beijing also offered to increase its imports of American agricultural, energy and manufactured goods as well as US services as a gesture that it is willing to open its markets -- one of the key US demands.

More important still, Trump announced he and his Chinese counterpart Xi Jinping would meet "in the near future" to bury some of the more difficult bones of contention in person.

The prospects of a Trump-Xi meeting "substantially raise the odds of a deal that gives the US at least a partial victory," said Eswar Prasad, professor of trade policy at Cornell and China specialist.

Given the tight deadline imposed by the 90-day truce -- leaving them just a month to reach a deal -- analysts say it is not realistic to expect more than a partial agreement with modest objectives.

But the US side has more far reaching objectives, and demands China end its unfair trade practices, including the alleged "theft" of American technological know-how, including forced transfer of intellectual property, hacking, and massive state intervention in markets.

While Trump insisted this week he would only sign a "real deal" that addressed these grievances, Washington could bump up against the soaring ambitions Beijing laid out in its "Made in China 2025" strategic plan.

Launched a little over three years ago, the plan aims to make the Asian giant a global leader in crucial emerging technologies like artificial intelligence and alternative-energy vehicles. For China, meeting Washington's demands would amount to altering its economic strategy and lessening the role of the state in the economy, something Western analysts say is unthinkable.

Beijing "has identified a whole range of industries that are strategically important and they want to use all the resources of the state to ensure that Chinese companies excel and become world leaders," the American Chamber of Commerce in China said in a statement.

Still, some Chinese experts say Trump's demands are not totally out of the question.

Compared with other possible demands, such as greater press and Internet freedoms and labor rights, "his list of structural reforms is only a minimal plan of action," Wu Qian, a lecturer in political science at Tsinghua University, told AFP.

REUTERS

US President Donald Trump meets with China's Vice Premier Liu He in the Oval Office of the White House in Washington on January 31.

US oil giants report strong profits

AFP, *New York*

US oil giants Exxon Mobil and Chevron reported strong annual profits on Friday, concluding with a solid fourth quarter despite a dive in crude prices at the end of the year.

Exxon Mobil reported profits of $20.8 billion in 2018, up 5.8 percent from 2017, while Chevron notched annual earnings of $14.8 billion, up 61.2 percent, capping the best year in terms of earnings since 2014.

Shares of both companies surged following the earnings releases, with fourth-quarter profits topping analyst expectations for both companies due in part to higher oil and gas output.

Exxon Mobil boosted its 2019 capital budget plan to $30 billion from the prior plan of $28 billion, while Chevron announced both a dividend increase and a new $25 billion share repurchase program.

In the fourth quarter, Exxon Mobil's oil output rose 4.3 percent, with increases in US and Asia oil more than offsetting declines in worldwide gas production.

Exxon Mobil also notched much higher refining profits due to lower downtime at US plants and gains from asset sales, including the divestment of a plant in Italy to the Algerian state energy firm Sonatrach.

Exxon Mobil Chief Executive Darren Woods said the oil giant's business model insulated it from lurches in commodity prices in places like the Permian Basin in Texas, where oil transportation bottlenecks have been minimized by the company's vast scale and infrastructure in the region.

"Against the backdrop of fairly volatile margin and price environment, we met earnings expectations for the year and generated $40 billion in cash flow from operations and asset sales, the highest level since 2014," Woods said on a conference call with analysts.

At Chevron, oil and gas output jumped 5.2 percent in the fourth quarter. Chief Executive Mike Wirth pointed to the start in 2018 of a major new project in the Gulf of Mexico, an expansion of an Australian liquefied natural gas project and ramped-up programs in the Permian Basin.

"We reached significant milestones with upstream major capital projects in 2018," said Wirth in a statement, adding that he expected 2019 output to rise four to seven percent, excluding the effect of asset sales.

Shortly after midday, Exxon Mobil shares were up 3.6 percent at $75.95, while the Chevron was up 3.5 percent at $118.60.