

Big data for urban planning

Analysis of large data, mainly from mobile networks, can help traffic management, says Rohan Samarajiva, founding chairman of Colombo-based LIRNEasia

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DATA analysis and its use can be instrumental in making policies, plans and decisions. Call detail records (CDR), which contain information about all the calls passing through a telephone exchange, can give an idea which areas in a city are prone to traffic congestion, or where economic activities are extensive.

This is why, 'big data' can help governments in township planning or allocating public services, said Rohan Samarajiva, the founding chairman of Colombo-based ICT think-tank LIRNEasia.

Researchers can use real-time data from mobile networks in analysing what happens when one road is closed or another opens in a different time of the day for traffic management, Samarajiva told The Daily Star in an interview in Dhaka recently.

Also, understanding people's regular mobility patterns through telecom data helps model the spread of infectious diseases such as dengue or Ebola so that the government can allocate its limited resources to battle the disease outbreak in a certain area.

Big data are extremely large data sets that may be analysed to reveal patterns, trends, and associations, especially relating to human behaviour and interactions.

"Mobile networks' big data is unbiased as everybody comes under the census," Samarajiva said.



Rohan Samarajiva

Big data can be characterised by three words -- volume, velocity, and variety -- and requires new forms of processing to enable enhanced decision making, insight discovery and process optimisation.

Samarajiva said big data can be obtained from CDR that gathers all information of a caller, including his position, duration of a call, the unique number of his handset, and so on.

LIRNEasia has recently completed a project, which used data from telecom networks in

Sri Lanka to generate patterns related to population movement that showed concentration of people in a city at any given time of the day.

The think tank used data generated from mobile usage to create heat maps that showed, for example, how Colombo draws people from the surrounding suburbs during work times.

Samarajiva said the mapping can be done both in urban and rural areas.

The number of residents in Colombo is only 550,000 and an equal number of people

come to the city in daytime from the neighbouring provinces. Before the research, people used to think that all of them were residents of Colombo.

"Now we can say how many people come to the city and where they come from. The numbers are very useful for urban planning."

Calling patterns, movement of subscribers, CDR and information from base stations can be used for the research, he said.

"We ensure that no data will be disclosed and the legal departments of the operators

check everything. The operators can give us the data and we do not work with any personal data," he said.

Samarajiva, who was the director general of Sri Lanka's telecom authority, said LIRNEasia is the only research organisation in South Asia or developing countries that is working on mobile big data.

"Now we want to work in Dhaka. It's one of the most interesting cities in the world. It is a very densely populated city. Everybody will want to know how it runs."

Samarajiva said they also plan to go to India and Bhutan for such researches. "We have developed relationships with the world's best universities who will provide us with researchers."

He said a lot of people are now talking about big data, but the current models of data analysis do not cover all the people, especially the poor. Mobile networks' big data can be used to reach this segment, he added.

Big data can give organisations access to more data than they have experienced before, and thus give them the opportunity to discover data correlations and patterns. Access to more accurate information can influence their business in many ways.

Businesses and organisations will feel more confident when making business choices and important business decisions. This can help companies improve marketing strategies, increase customer base and gain a competitive edge.

Japan's regional banks face stress test for ultra-low rates

Reuters, Tokyo

JAPAN'S financial regulator is running stress tests to see if too much cash in the system is stifling smaller banks' ability to earn, unlike regulatory tests elsewhere that have been designed to see whether lenders had enough capital to cope with financial shocks.

Two people with direct knowledge of the process said the Financial Services Agency (FSA) had initiated the tests on concerns that with 10-year Japanese government bond yields near a record low around 0.3 percent, regional lenders in particular could be at risk as the gap between what they pay for deposits and what they collect on loans and bond holdings shrinks.

The FSA told Reuters: "As a general matter it is important for financial institutions to have the ability to respond to changes in the operating environment, including changes in interest rates. That applies beyond regional banks. We cannot comment on any specific or individual matters beyond that."

The action highlights one of the unintended risks of Prime Minister Shinzo Abe's programme to end decades of deflation with the support of the Bank of Japan (BOJ), which by injecting monetary stimulus into the economy is helping to keep interest rates at rock bottom.

Critics say policymakers in Europe should be considering such risks, too.

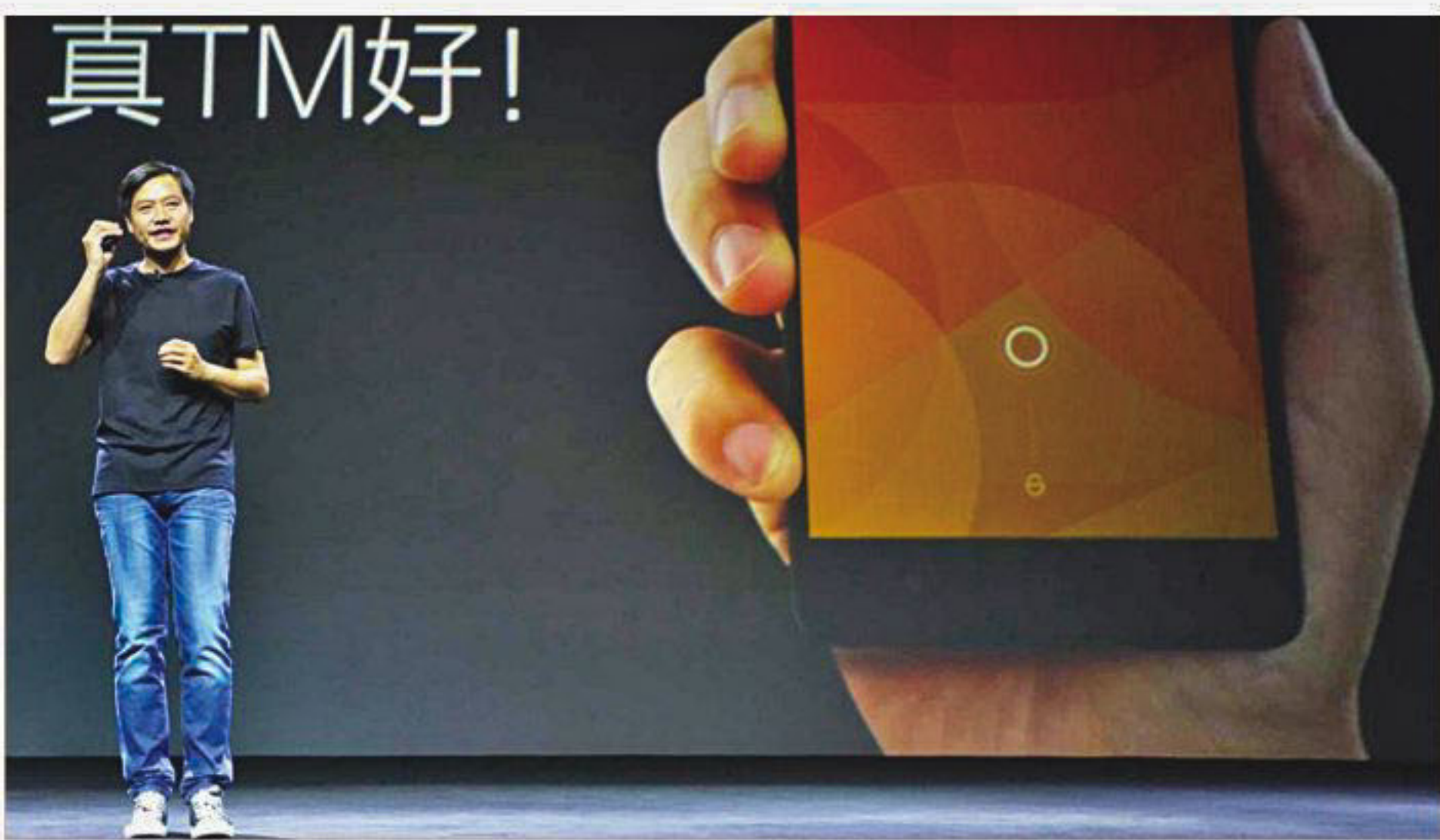
The European Central Bank completed a review of the resilience of euro zone banks in October and came under fire for not including a deflationary scenario in its stress test hypotheses, even though inflation and bond yields in much of the region are hovering barely above zero.

ECB Vice President Vitor Constancio defended the omission by arguing that a "deflation (scenario) is not there because indeed we don't consider that deflation is going to happen".

It was not immediately clear what scenario or assumptions the FSA was using in its assessment of the risk to regional and smaller banks, nor how the agency would follow up with lenders that appeared to be at particular risk from a period of persistently low, long-term interest rates.

Japan's more than 100 regional banks account for around 40 percent of the country's \$4.6 trillion in outstanding loans, but overall loan demand has shrunk 10 percent over the last 20 years.

Such banks, which typically serve smaller businesses, have seen lending fall as Japan's population ages, and many have cut the interest rates they charge to win business.



REUTERS/FILE

Xiaomi CEO Lei Jun speaks at the launch of its flagship Mi4 smartphone at a glitzy event in Beijing on July 22. China's Xiaomi Inc, one of the world's fastest-growing smartphone makers, has raised \$1.1 billion in a round of funding that values the privately held company at \$45 billion, Jun said yesterday on social media.

Russian economy shrinks for first time since 2009

AFP, Moscow

RUSSIA'S economy shrank in November for the first time in five years, the government said Monday, illustrating the sharply changing fortunes of President Vladimir Putin's rule as he faces falling oil prices and Western sanctions.

The figures were the latest indication that Russia was sliding toward recession -- and potentially a deep one should oil prices remain low -- presenting a major challenge to Putin amid his current show-down with the West.

The economy ministry said gross domestic product for the month contracted by 0.5 percent year-on-year for the first time since October 2009.

The ministry chalked up the negative growth to a slowdown in sectors including services, agriculture, extraction of mineral resources and construction.

Households' real disposable incomes went down by nearly 3 percent in November compared to October when they were up 2.4 percent, the economy ministry's figures showed.

Under pressure from the low oil price and Western sanctions over the Kremlin's support for separatists in Ukraine, Russia is heading for a sharp recession complete with the collapse of the ruble and double-digit inflation.

"This is the beginning of a recession," Ruslan Grinberg, director of the Institute of Economics at the Russian Academy of Sciences, told AFP.

Putin's pact with voters has for years

been based on relative prosperity and high oil prices.

He has dismissed the financial troubles as temporary, saying the economy would adjust to the low oil price and rebound in two years at most.

But many economists said such statements exposed a lack of a firm plan to deal with the crisis.

The ruble has fallen some 40 percent against the dollar this year.

On Monday, the ruble was down by around 6 percent against the greenback at the opening but later recovered some of the losses and traded at around 56 rubles to the dollar in afternoon trading.

Russia's national currency fluctuated wildly earlier this month, forcing Russians to snap up imported goods ahead of expected price hikes.

On December 16, swiftly dubbed "Black Tuesday", the currency crashed to unprecedented lows of 80 rubles to the dollar and 100 rubles to the euro.

To buttress the beleaguered currency, the government ordered state-controlled exporters to sell part of their foreign exchange holdings and the central bank raised interest rates to 17 percent from 10.5 percent.

Grinberg disparaged the authorities' response as "band-aid solutions".

"There is no systemic anti-crisis programme. They are not ready yet to react to this in a serious manner," he said.

The central bank has warned of a contraction by up to 4.8 percent in 2015 based on current oil prices, with a recovery not expected until 2017.

Unease in Singapore over Filipino workers

BBC NEWS, Singapore

ONE of Singapore's most popular comic characters happens to be a Filipino maid called Leticia Bongnino.

A fictional character from a television sketch show, she embodies a stereotype familiar to Singaporeans who have long relied on Filipinos to tend to their homes.

But it is also a stereotype that has become outdated, as more Filipinos move into new professions here.

These days a Singaporean professional is likely to have Filipino colleagues. With many more taking up service sector jobs, he is also likely to be served by a Filipino at a restaurant, supermarket, or doctor's clinic.

The estimated number of Filipinos working in Singapore tripled in the past decade to about 167,000 as of 2013, according to Philippines census data. The Singapore government declined to provide the BBC with official figures.

But their rising visibility in Singapore's society has drawn attention. Amid increasing general resentment towards foreigners, a backlash towards Filipinos has taken place.

Earlier this year, a plan to hold a Philippines Independence Day celebration on Singapore's main shopping street Orchard Road was cancelled following online complaints by some Singaporeans who said the space was special to locals.

One blogger called the move "insensitive", saying: "Celebrating your Independence Day openly in the public (especially [at a] iconic/tourist location like Orchard Road) is provocative."

Prime Minister Lee Hsien Loong said he was "appalled" by those who had harassed organisers, calling them a "disgrace to Singapore". Many Singaporeans also lambasted those who complained about the event.

But anti-Filipino sentiment has continued to swirl online, culminating in a blog titled Blood Stained Singapore suggesting ways to abuse Filipinos, calling them "an infestation".

The suggestions, which included pushing Filipinos out of trains and threats to spray insecticide on them, alarmed the public. The blog was eventually taken down by Google for infringing content rules.

The Philippines ambassador to Singapore, Antonio A Morales, told the BBC in a recent interview that "by and large" Filipinos were accepted in Singapore, and his embassy had not received any complaints of physical abuse.

But he expressed concern about "the few Singaporeans" who have lashed out, and condemned the blog that suggested abusing Filipinos.

"I think it was unfair and racist and discriminatory," he said, adding that the blogger had still not been identified. Singapore police have launched an investigation and say the case is still being probed.

Part of the problem is that Filipinos are



BBC NEWS

Concerns about overcrowding have mounted in Singapore, which saw a 33 percent increase in population in a decade.

willing to take on jobs for lower salaries, with working conditions unacceptable to Singaporeans.

The trend has made Filipinos "easier to exploit", disadvantaging both them and Singaporeans, said migrant rights activist Jolovan Wham.

Sociologist Tan Ern Ser said that when Filipinos were mostly domestic workers, "they posed less of a threat, since they were in jobs which were less attractive to locals."

But now, "they may be perceived as competitors for jobs in sales, services, or professions that Singaporeans would take up but preferably at higher wage levels, consistent with their aspirations".

The rise of anti-foreigner sentiment here is a recent phenomenon, with increasing immigration triggering underlying anxieties, say observers.

"Over the decades, the ruling government has emphasised that we are a small island with a lack of natural resources," noted sociologist Terence Chong.

But this "survivalist rhetoric", meant to spur on citizens, has now had the inadvertent effect of creating resentment against foreigners who are seen as competition for limited resources.

Filipinos here said that Singaporeans have been accepting, although they are concerned about escalating anti-foreigner sentiment.

Media executive Jina L said Filipino professionals like her "keep our heads down" in Singapore. "We can be vocal, but we know when we should keep a low profile," says the 49-year-old permanent resident.

Restaurant supervisor Michelle Villegas, 31, felt "sad and worried" about online attacks. At work she has encountered customers who have made fun of her for being Filipino.

She came to Singapore five years ago after her sister, who found a job working at the airport, urged her to follow suit. "She told me that the work is good and the salary is much

better than back home because you earn in Singapore dollars. It is also very safe, so I like it here," she said.

She is now also worried that the government will not renew her employment pass, as labour rules have been tightened following public unhappiness over the influx of foreigners.

Worried about a fast-ageing society, Singapore has allowed in more foreigners over the past decade, increasing the population by 33 percent to 5.47 million.

The proportion of foreigners has nearly doubled to 29 percent in that same period.

Some Singaporeans have complained about crowded public transport, high housing prices, and a lack of good jobs. The citizen unemployment rate remains low at 3 percent.

Widespread unhappiness led to the ruling People's Action Party scoring its lowest-ever share of votes in the 2011 general election.

Since then the government has made it more difficult to hire cheap foreign labour, and incentivised productivity and innovation - but progress has been slow.

It also ramped up transport infrastructure and housing, and attempted to cool the property market.

One way Singapore has tried to solve the labour crunch while placating the public's desire for fewer foreigners is outsourcing jobs to other countries.

In the Philippines, the Singapore government-linked company Keppel set up shipyards in Batangas and Subic Bay. Last year a government agency tasked to find opportunities for Singapore companies overseas set up an office in Manila.

"Instead of our workers coming here, Singaporeans can bring their jobs to other countries, to our labour centres," said Morales.

But not all jobs can be sent offshore - and Singapore still needs to fill many job vacancies perceived as unattractive.