

# Blockchain and the emergence of distributed ledger technology



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**D**ISTRIBUTED ledger technology (DLT) and digital tokens are rewiring commerce worldwide. The underlying technology is blockchain.

According to a recent survey conducted by PwC globally, 84 percent of the 600 executives surveyed mentioned that their organisations have some involvement with blockchain technology. What is the blockchain world going to look like? The survey indicated four clearly emerging trends.

First, businesses are moving fast towards tokenising everything. The digitalisation of real or virtual assets using blockchain technology is spreading to other sectors and it includes new types of assets, such as raw materials and finished goods. These new representations of digital tokens are expected to transform company processes and create new business models.

Secondly, initial coin offerings (ICOs), in which a company sells a predefined number of digital tokens to the public, are growing as an alternative to traditional capital funding.

Technology-based start-ups are raising capital for the development of such blockchain technology platforms. It should be noted that cryptocurrencies are not regularised in many economies, including Bangladesh.

However, the rapid growth in this segment in many countries is

notable and it is worth deliberating whether Bangladesh should embark on a regulated cryptocurrency regime.

Thirdly, enterprise resource planning (ERP) applications have started integrating blockchain with their core systems. Many companies in Bangladesh have implemented ERPs successfully, and ERPs have become the engine for their operations (for example finance). In the coming years, their upgraded ERP versions will be blockchain enabled.

Using blockchain with their ERP systems, companies will be able to streamline processes, facilitate data sharing, and improve data integrity. It is important that companies in Bangladesh start thinking about this new technology today and build a roadmap for the future.

Finally, a good number of business leaders still perceive financial services to be the current and near-term future leader of blockchain. But other industries and services, particularly citizen services delivery, are on the rise.

Many companies in Bangladesh are now expanding internationally, with their operations spread in multiple countries. Such companies may benefit by exploring how they use internal digital tokens to represent cash or other assets. This will help them in streamlining the movement of assets between business units across boundaries.

It will also eliminate the need for regular bank transfers, currency conversions and transaction monitoring, and will also save time and money for the businesses.

While blockchain is clearly emerging as a leading technology for the future, the rate of adoption by businesses is mixed. Among the executives surveyed by PwC, 15 percent responded that their

organisations have live systems on blockchain technology.

At the same time, 7 percent stated that their blockchain projects have been paused or stopped altogether before going live. Businesses must focus on details of the design and determining the rules of engagement for successful adoption of blockchain technology.

There are several reasons that are preventing the adoption of blockchain technology at a faster rate. Building a blockchain becomes more complex when multiple stakeholders participate. In particular, companies with a presence in multiple countries and running multiple systems will encounter many issues before they can successfully adopt blockchain.

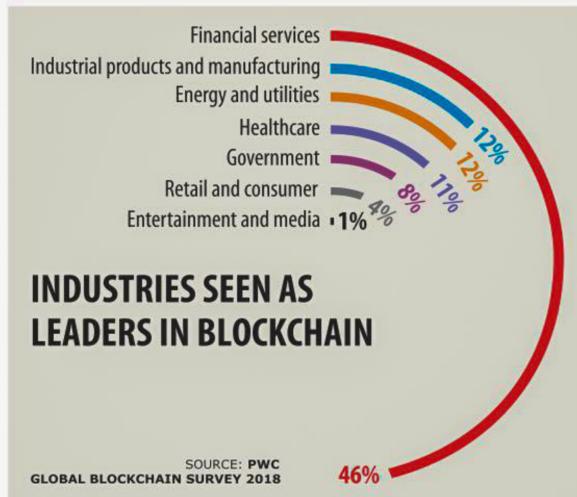
Blockchain's benefits are best realised when different industry participants come together to create a shared platform. Significant focus should be given to managing the change.

The other impediment of blockchain adoption is lack of trust. Blockchain, by its very definition, should engender trust. But in reality, companies are faced with trust issues at nearly every turn.

For one, users must build confidence in the technology itself. As with any emerging technology, challenges and doubts exist around blockchain's reliability, speed, security and scalability. And there are concerns regarding a lack of standardisation and the potential lack of interoperability with other blockchains.

Lack of clear understanding of the technology is another factor slowing down the adoption rate. A large number of executives are unclear about what blockchain really is and how it is changing different facets of business.

Blockchain's role as a two-



pronged change agent—as a new form of infrastructure and as a new way to digitise assets through tokens—is not easy to comprehend and explain to the senior management within organisations.

The majority of regulators are still not comfortable with the idea of blockchain technology as a trust-building platform. Many of them have begun studying and discussing the issues, particularly as they relate to financial services.

However, it should be noted that the technology is not meant for financial services only. It has significant potential in other sectors, and regulators of those sectors should also study this technology seriously.

For example, in the telecom sector, blockchain technology can be used to solve some of the customer-centric issues, such as authenticating a customer, porting a mobile number from donor operator to recipient operator, and porting customer preferences from one operator to another operator.

The telecom regulator in India has published a consultation paper on leveraging blockchain technology to address such issues. The regulators in Bangladesh should also start studying the potential of this technology and should undertake some pilot projects to verify its viability.

With the developed world already adopting blockchain, there are quite a few use cases in Bangladesh where this new technology can be applied. As an emerging nation, Bangladesh has the advantage of starting with a clean slate and thus does not have to worry much about legacy systems.

There is ample scope for delivering citizen services using this technology, thereby catalysing inclusive growth. Also, some of the use cases for Bangladesh have the potential to become model cases for other emerging countries in the world.

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

## India's SpiceJet to launch air cargo services

PALLAB BHATTACHARYA, New Delhi

India's private low-cost airline SpiceJet yesterday said it would launch its dedicated air cargo services from September 18 to carry, among other items, perishable goods like farm fresh fruits and vegetables to international and domestic destinations.

The carrier said it would operate the cargo services under the brand name 'SpiceXpress' and has a detailed plan for domestic as well as international routes.

SpiceJet would be the first scheduled domestic airline to start dedicated air cargo services in India. A Boeing 737-700 plane has been inducted as the first freighter aircraft which has a capacity for 20 tonnes of cargo, an airline statement said.

"To begin with, the air cargo operations will cover four Indian cities and Hong Kong and Kabul," it added.

SpiceJet Chairman and Managing Director Ajay Singh said there is a huge untapped market for air cargo services in India.

"With our proven operational capability, this is an extension of our 'belly cargo' service to a 'dedicated freighter' with Boeing 737 aircraft," he said.

SpiceJet's existing fleet has a cargo capacity of about 500 tonnes per day. "With the launch of the dedicated freighter service this capacity would go up to 900 tonnes a day in a phased manner with the addition of four freighters by March 2019," the airline said.

With a fleet of 36 planes, SpiceJet operates an average of 412 flights daily to 54 destinations.

## American stock regulator halts trading in two cryptocurrency products

REUTERS, New York

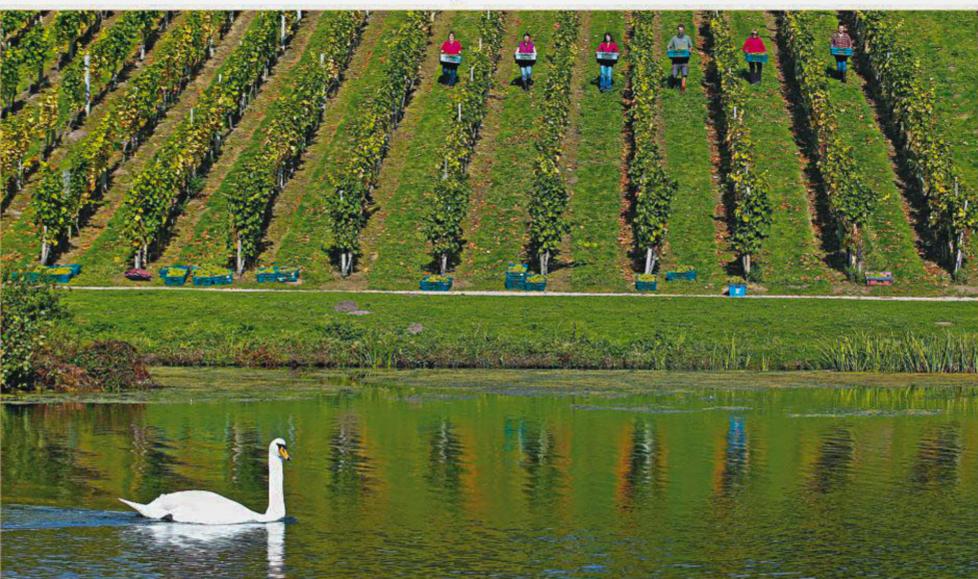
The US Securities and Exchange Commission said on Sunday it was immediately suspending trading in two investment products that track cryptocurrencies, citing confusion in the markets over whether the products are exchange-traded funds (ETFs).

The SEC said in a statement that trading in Bitcoin Tracker One and Ether Tracker One would be halted in the United States until at least Sept. 20.

The products promise to track the price of the cryptocurrencies, less fees. They are both listed on a Nasdaq Inc exchange in Stockholm, but trade "over the counter" in transactions that occur off exchanges within the United States.

"It appears ... that there is a lack of current, consistent and accurate information," the SEC said in a notice posted on its website. "Application materials submitted to enable the offer and sale of these financial products in the United States, as well as certain trading websites, characterize them as 'Exchange Traded Funds.'"

## UK enjoys fastest growth in almost a year



REUTERS/FILE

A swan swims on a lake as volunteers and staff carry crates of grapes in the annual harvest at the historic vineyard at Painshill 18th century landscape garden in Cobham, Britain.

REUTERS, London

**B**RTAIN reeled off its fastest economic growth for nearly a year in the three months to July thanks to strong consumer spending lifted by the World Cup and unusually warm weather, official figures showed on Monday.

Gross domestic product in the three months to July was 0.6 percent higher than in the previous three-month period, the Office for National Statistics said, gathering pace from 0.4 percent growth in the three months to June - and at the top end of forecasts in a Reuters poll.

This was the fastest growth since August 2017 and should reassure the Bank of England, which raised interest rates last month for the second time in more than a decade, forecasting third-quarter growth of 0.4 percent but only a lacklustre 2018 expansion of 1.4 percent.

Sterling was little changed on the data, which economists said showed an economy growing better than hoped after a slow start to 2018, even taking into account the effect of one-

off factors.

"Far from running out of steam, UK activity has picked up after a very poor start to the year. Monthly data is choppy, but this pick-up shows that the UK is entering the crucial phase of Brexit talks in better shape than seemed likely six months ago," Deloitte economist Ian Stewart said.

Britain's economy has slowed since the June 2016 vote to leave the European Union, its annual growth rate slipping from top spot among the Group of Seven rich nations to jostling with long-term laggards Japan and Italy for bottom place.

Some business surveys have shown firms delaying investment plans while the terms on which Britain will leave the EU on March 29 continue to remain unclear, posing the risk of disruption to existing trade arrangements.

Monday's data showed that compared with a year earlier, GDP growth in July alone was up 1.6 percent, while it was 0.3 percent higher than in June, again above poll forecasts for 1.4 percent annual growth and a 0.2 percent monthly gain.

Consumers have been squeezed

for more than a year by the jump in inflation which followed the pound's tumble after the 2016 referendum, especially as wages have failed to keep up. That said, in recent months industry surveys have shown that an unusually warm summer encouraged many Britons to splash out on drinks and pub and restaurant visits.

Last week, closely watched purchasing managers' data pointed to third-quarter growth of 0.4 percent, as a pick-up in services activity outweighed a slowdown in manufacturing and construction activity.

Monday's data showed that Britain's dominant services sector grew by 0.6 percent in the three months to July, its biggest rise since January 2017, while 3.3 percent growth in the much smaller construction sector was the fastest since February 2017.

"We suspect, given the strength in the 'distribution, hotels and restaurants' sub-sector, the warm weather was a big help here, and probably so too was England's performance in the World Cup," Investec economist Philip Shaw said.

## Spotlight on Alibaba CEO as Jack Ma starts retirement countdown

REUTERS, Beijing/Shanghai

**U**NLIKE his charismatic boss, Jack Ma, Alibaba chief executive Daniel Zhang isn't usually one to grab the limelight, let alone make kung fu movies with superstars or dance in public.

Little is known outside the company about Zhang, a soft-spoken accountant who goes under the epithet "Xiaoyaozi" at work - the name of a character from a Chinese martial arts novel literally meaning the "free and unfettered one."

But he will have to step out from the shadows after Ma said he would leave his role as chairman in September 2019, handing Zhang the reins of his \$420 billion tech giant.

"We don't know much about (Zhang) even though he's been CEO for a while, because he's by nature a very low-key person, low profile. He's happy to not be in the limelight," said Duncan Clark, managing director at Beijing tech advisory BDA and author of "Alibaba: The House that Jack Built".

The handover of power, the first such transition for any of China's major tech firms, will see Zhang, 46, elevated to the top of a sprawling empire that spans e-commerce, payments, fast food delivery and brick-and-mortar retail.

Zhang, who leads Alibaba's investor calls with polish stemming from his years at global auditors Arthur Andersen and PricewaterhouseCoopers, has been CEO since 2015.

His fingerprints are on some of the company's most successful moves: he was a key architect of Alibaba's "Singles Day," the Nov. 11 event that has become the world's largest online shopping festival.

The company has added around \$200 billion to its market value since he became CEO, and has now posted nine straight quarters of revenue growth above 50 percent while investing in food delivery and offline retail, and pushing into Southeast Asia.

Crucially, Zhang oversaw the



REUTERS/FILE

Alibaba Founder and Chairman Jack Ma (L) talks to CEO Daniel Zhang at NYSE Bell Ringing ceremony during Alibaba Group's 11.11 Global shopping festival in Beijing, China.

growth of retail platform Tmall, which has grown to be one of the company's most significant revenue drivers, squaring off against major Chinese e-commerce rival JD.com Inc.

But he also inherits some challenges. Despite soaring sales, Alibaba's profit margins have been squeezed by rising competition and heavy investment to fend off rivals. The company's shares are down more than 10 percent this year after peaking in June.

A global trade war is also hampering Alibaba's ambitions for international expansion, including into the United States.

Zhang, who joined Alibaba in 2007, sees Alibaba as an integrated ecosystem that lures consumers with movies, live-streamed sports, fast food deliveries and news.

"Alibaba today is more like all-in-one," he told investors and analysts on a call discussing the company's quarterly earnings in August.

Zhang, who is from Shanghai, said in an interview with local business publication Yicai last year that

he returned to the city once a week from Alibaba's Hangzhou headquarters to recharge and spend time with his wife.

He added that he had not bought a house in Hangzhou because he didn't have time. To relax, he enjoys watching soccer and basketball.

Zhang - like Ma - has worked hard to promote the company since its 2014 listing, making appearances at the World Economic Forum in Davos and other global events.

But he doesn't have the same star power that founders in China's large tech companies hold, including Jack Ma, Baidu Inc's Robin Li and Tencent Holdings Ltd's Pony Ma.

Those three frequently headline tech conferences and even government events together. Ma even did a Michael Jackson-themed dance routine at an Alibaba anniversary event last year, complete with a costume.

Zhang and his team, although working under the radar, "are ready" to take over, Ma said in a letter to staff and shareholders.