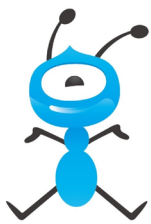




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Alibaba in Blockchain:

Integrating Blockchain-based Remittances into Cloud Services

10/2018-6442

This case was written by Jason Davis, Associate Professor of Entrepreneurship and Family Enterprise, Minh Vo, PhD student, both at INSEAD, and Anne Yang, Research Associate. It is intended to be used as a basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation.

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“We are very excited to introduce this new remittance solution to our users in Hong Kong, and in particular to the Filipino community in the city. What used to be a long process of physically going to a remittance booth, queuing in line for hours and filling out forms, is now easily and securely done over the mobile phone in just a few seconds.”

Jennifer Tan, CEO, Alipay Payment Services, Hong Kong¹

“Traditional financial institutions serve 20% of people and make 80% profits. New financial institutions should service 80% of people and make 20% profit... At the time we wanted to [buy] MoneyGram and overhaul it to help people all over the world solve this issue. Due to reasons from the US, our deal with MoneyGram did not succeed, so I said, ‘Let’s make one better [than MoneyGram] that uses the most advanced technology.’ The impact of blockchain on people and society will be greater than we can ever imagine.”

Jack Ma, Executive Chairman, Alibaba²

1. Fintech and Cloud Computing in China

1.1 China’s FinTech Industry

The rapid emergence of financial technology (fintech) in China stemmed from the convergence of three factors that were unique to that country: high smartphone penetration, a vast underbanked, tech-savvy population, and a ‘grey’ regulatory environment. Unlike their counterparts in developed economies that had to work around legacy systems, Chinese companies could leapfrog to the latest technologies such as mobile payments. The pace of progress at Tencent and Alibaba was such that in addition to conquering the domestic market, their fintech applications were rolled out in other emerging markets, particularly in Southeast Asia. Alibaba’s payment affiliate, Ant Financial, was responsible for many of its fintech innovations and could leverage Alibaba’s customer base and expertise in internet-based software.

While per-capita income in China remained low—\$4,044 in 2017—rapid urbanization had spurred the growth of a huge middle class. In 2016, 225 million households in China earned between \$11,500 and \$43,000 a year—a segment that looked set to rival the size of the entire US population (323 million). As of December 2017, China had 772 million internet users. This was more than the entire population of Europe, yet a mere 55.6% of China’s population. Moreover, 95% of those internet users accessed the web via a mobile device.

China’s unsophisticated banking industry contrasted starkly with its technological infrastructure and soaring demand for financial services. Traditionally, commercial banks in China were mostly state-owned and focused on servicing state-owned enterprises, neglecting the needs of small- and-

1 <http://fortune.com/2018/06/26/alibabas-ant-financial-blockchain-bitcoin/>

2 <https://kr-asia.com/ant-financial-launches-blockchain-based-remittance-service-scrambling-for-the-hong-kong-payment-market>

medium-sized enterprises (SMEs) and ordinary Chinese people who were rapidly accumulating wealth. According to World Bank data, in 2014 only 9.6% of Chinese adults had access to credit from banks, credit unions, cooperatives or microfinance institutions). A World Bank Enterprise Survey in 2012 found that SMEs received less than 25% of the loans extended by Chinese banks, albeit they accounted for over 60% of GDP and 80% of urban employment – a discrepancy attributed to a lack of qualified collateral and credit history.

Observing the surplus of underserved individuals and SMEs, fintech firms stepped in to fill the void. Mobile payments and online lending – which directly addressed the demand for consumer spending and credit – were the two most prominent sectors in China’s fintech industry.

1.2 Rise of Cloud Computing

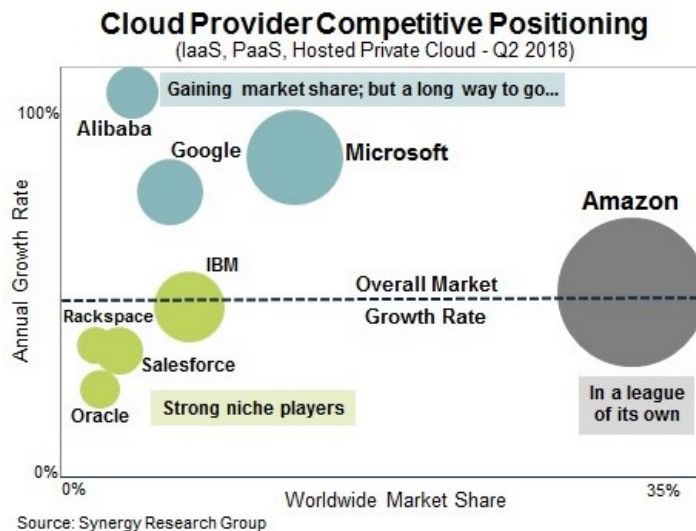
Becoming a digital enterprise had evolved from simply being more efficient to operating more effectively in a smarter world. To remain competitive, businesses focused on building seamless, dynamic, agile strategies, switching from on-premise infrastructure to cloud computing. Big data and enterprise resource planning (ERP) were increasingly migrated to cloud platforms. IDC predicted that more than 70% of Asia Pacific firms would have a multi-cloud strategy by 2018. Connecting to multiple cloud service providers (CSPs) meant that firms could simultaneously spread the workload across the most suitable cloud services for their business needs. As the cloud market matured, organisations started to use services more strategically to scale up their infrastructure capacity to manage surges (or peaks) in information and transactional data generated by their digital products and services. Businesses in Asia Pacific became more ambitious, seeking to expand not only in the region but globally.

The ‘Big 3’ cloud vendors – Amazon Web Services, Microsoft Azure and Google – were the heavyweights in the cloud ecosystem, with their compelling high-volume/low-margin business models, but players such as Digital Ocean and Alibaba’s Cloud began to challenge their dominance. Alibaba reported that its cloud business grew 93% in Q2 2018 to a staggering \$710 million.³ While its market share (about 4% of the global market) remained relatively small compared to Amazon, it was gaining on Microsoft, Google and IBM, and held a strong position in Asia, particularly in China⁴ (see Figure 1).

3 <https://techerunch.com/2018/08/24/alibaba-continues-to-gain-cloud-momentum/>

4 *Ibid.*

Figure 1: Comparison of Global Cloud Providers



On August 15, 2018, at its first Computing Conference held outside of China (in Singapore), Alibaba Cloud emphasized the importance of Southeast Asia and the Asia Pacific region to its growth. Derek Wang, chief solution architect at Alibaba Cloud International, announced:⁵

Asia Pacific is a unique market, and as a global cloud-services provider with an Asian origin, we are committed to leverage our knowledge and experience to build a sustainable regional ecosystem and enrich our offerings to meet the needs of our customers in this digital age.

However, even as Alibaba's footprint widened in Asia, other cloud companies were fighting for a piece of the action. Google announced on September 13 that it was beefing up its coverage in Asia Pacific, where it planned to operate seven cloud regions by early 2019 (up from one region in 2017).⁶

1.3 Blockchain

From early 2017 blockchain became the darling of the tech world, investors, financial institutions and banks, years after first gaining attention as the underlying technology in bitcoin. Created in 2008 by Satoshi Nakamoto (a pseudonym), bitcoin was a digital currency that could be exchanged between one party and another without the involvement of financial institutions, central banks or government. Its impact was largely confined to a niche of users until 2011, when it began to increase in value after being accepted by a number of merchants. A wave of negative publicity surrounding bitcoin used by Silk Road, an online black market, and the collapse of Mt. Gox – the biggest crypto-currency exchange at that time – enhanced bitcoin's trading value but caused

5 <https://www.alizila.com/southeast-asia-alibaba-cloud-conference/>

6 <https://www.zdnet.com/article/google-talks-up-apac-cloud-support-as-alibaba-intensifies-gameplay/>

mainstream companies and financial institutions to distance themselves from what might be seen as dabbling in cryptocurrencies (and thus blockchain).

Blockchain technology underpinned distributed public databases. Entries were automatically updated when the system confirmed their validity, without verification by a central intermediary because the peer-to-peer system relied on 'miners' who competed to confirm new entries. Miners were paid in the new tokens that were being exchanged on the system (e.g., bitcoin, Ethereum), enabling the supply of tokens to increase over time. Tokens could be exchanged for real currencies (e.g., US dollars) in a variety of online exchanges, which provided liquidity for the market. Although the fundamental architecture of blockchain seemed robust, exchanges varied widely in sophistication of security, which accounted for occasional incidents of massive hacking, as in the case of Mt. Gox.

While cryptocurrency was one application of blockchain, corporate interest was in the transparency, disintermediation and security advantages that a distributed database could provide. Blockchain's potential as an infrastructure catalyst for new, decentralized applications was apparent to both the financial and technology industries – it was the next-step in the evolving from distributed computing architecture to a global database integrating all kinds of interfaces, devices and sources of data. A wave of fintech companies emerged to focus on the underlying technology as a more efficient, transparent way of exchanging digital assets, which plugged the gaps left by current technologies.

Blockchain was unique in that every single transaction made on its network was publicly recorded and the data were formed into blocks. For bitcoin, a new blockchain was created every ten minutes and subsequently shared throughout the network. The chain was constantly growing as each completed "block" was added to the public ledger. The number of blocks was unlimited: as soon as one was completed, another was automatically generated. Each block contained a "hash" – a unique fingerprint of the previous code, thus ensuring that prior data was secure.

1.4 Confluence of Blockchain and Cloud Computing

A central aspect of blockchain technology was the "distributed ledger", a record of all previous transactions that was not stored in a central location but copied across a network of computers around the world. Key to its operation was ensuring the entire network agreed with the contents of the ledger – this was the consensus mechanism that the miners used. The confluence of blockchain and cloud computing opened up a whole new dimension in fintech, enabling companies to remain in compliance with the law while outsourcing mission-critical processes to external vendors who had little, if any, accountability in the data and processes generated.

2. Strategy and Technology behind Alibaba's Iron Triangle

2.1 Alibaba's Iron Triangle

In 1999, Jack Ma, an English-teacher-turned-internet-entrepreneur, founded the Chinese e-commerce company Alibaba. Dubbed "the Amazon of the East", in fact it had a greater impact on

the retail sector of China than its rival in the USA: more people made purchases on Alibaba's websites per year than there were people in the United States.

Over the years, Alibaba grew to be an unstoppable force as a result of what Jack Ma described as the 'Iron Triangle' – strength in e-commerce, logistics and finance. Later on, the triangle came to be underpinned by cloud services to process and store the massive data generated by its own transactions, as well as for other enterprises using its cloud services. Its unique cloud value proposition was its ability to push applications/adoption through its 'Iron Triangle' connections.

E-commerce and online shopping were more popular in China than in the West, accounting for more than 10% of all retail purchases in the country, compared to 7% in the US. China's equivalent of Cyber Monday was "Singles' Day", which occurred on 11th November, and in 2017 reached \$25 billion⁷ in sales on Alibaba alone, cementing it as the world's biggest shopping event. Its e-commerce sites (which, unlike Amazon, carried no inventory) included Taobao (a 9 million merchant B2C marketplace), Tmall (big retailers and luxury brands) and the flagship B2B site Alibaba. To facilitate the e-commerce economy in China, Alibaba co-founded many of the companies in the ecosystem of its 'Iron Triangle' to cope with the massive volume of transactions generated, which outstripped the capability of China's banking system, logistics network and cloud services.

While Alibaba was often compared with Amazon, their e-commerce strategies differed significantly. Amazon was a margin business, bringing Walmart's scale online to create a retailer based on a high-volume/low-cost model that relied on massive scale and technology to achieve cost savings. Alibaba brought collective entrepreneurship online in a network model that turned the vendors who listed their products on its e-commerce sites into entrepreneurs and business owners.⁸

By 2018, both companies had ventured beyond their home countries and set their sights on Southeast Asia, where the e-commerce market was forecast to grow to \$88 billion in 2025, from \$10 billion in 2017.⁹ E-commerce events dominated regional headlines in 2017 with Amazon's long-awaited entry into Singapore, the \$250 million record sale by Lazada's Online Revolution Campaign, and the rise of platforms like Shopee and Carousell.¹⁰ After Amazon.com revealed its intention to enter Vietnam in March 2018, Alibaba made a countermove to secure its own growth path by announcing an injection of \$2 billion into its majority-owned subsidiary Lazada Group, the Singapore-based online retailer.¹¹

Logistics was the second 'side' of the 'Iron Triangle'. After merchants transacted on Alibaba's e-commerce platforms and payments were made, the goods needed to be delivered. In China, the boom in e-commerce had led to the creation of over 8,000 private courier firms, among which 20

7 <https://techcrunch.com/2017/11/11/alibaba-smashes-its-singles-day-record/>

8 <https://www.forbes.com/sites/panosmourdukoutas/2018/05/06/why-alibaba-is-more-profitable-than-amazon/#44200e7c1678>

9 <https://asia.nikkei.com/Business/Business-Trends/Alibaba-counters-Amazon-s-expansion-in-Southeast-Asia>

10 <https://medium.com/swlh/the-state-of-ecommerce-in-southeast-asia-in-2017-5a779f962623>

11 <https://asia.nikkei.com/Business/Business-Trends/Alibaba-counters-Amazon-s-expansion-in-Southeast-Asia>

major companies dominated. On September 28, 2017, Alibaba acquired a controlling stake in logistics company Cainiao,¹² and announced its intention to invest 100 billion yuan (\$15 billion) in global logistical capabilities over the next five years, including building a proprietary information platform that knitted together logistics providers, warehouses, and distribution centres across the country. With Cainiao, Alibaba shored up trust – customers and merchants knew that they could count on the products getting where they needed to be, on time.

In Southeast Asia, logistics were a challenge. Huge investments were required in cities and last-mile networks to cope. In addition to poor road infrastructure and islands spread across archipelagos, companies had to contend with a grey regulatory environment. ‘Regionalizing’ its logistics strategy, Lazada worked with more than 100 companies in delivery and cross-border logistics, from Ninjavan in Singapore to ride-hailing start-up Go-Jek in Jakarta. It had plans to speed up construction of logistics infrastructure to add to its 14 warehouses and 130 smaller distribution centres.¹³

The financial tool that gave Alibaba the edge – the third side of its ‘Iron Triangle’ – was Alipay, which handled more than three quarters of a trillion dollars a year in online transactions (three times the volume of PayPal). Domestically, the fiercest rivalry in payments was WeChat Pay versus AliPay, an epic battle between Shenzhen-based Tencent, owner of China's leading social network, and Alibaba. As a form of escrow, Alipay guaranteed trust through its e-commerce empire.

Another company in its portfolio was MyBank, an online moneylender founded in 2015. In place of physical branches, it used cloud technology to cut back on hardware to serve borrowers. Using big data on repayments via Alipay, Alibaba was able to assess monthly sales of small businesses and their repayment patterns, and offer loans to borrowers at low cost. A specially developed QR code app for small shop vendors sent daily sales data to MyBank’s database, and vendors were automatically pre-approved for a loan amount equal to their sales. It took only three minutes to apply for a loan and one second to approve the SME loan digitally. MyBank sidestepped the brick-and-mortar retail bank model, making over 10 million micro-loans to small merchants since its launch in 2017, averaging less than \$1600.

In the year ended March 31, 2018, Alipay, together with its global partners, served approximately 870 million active users globally and over 15 million small businesses in China.¹⁴ Alipay and Tencent’s WeChat Pay led the fintech drive into Southeast Asia. Alipay broke into the Singapore market through a merchant acquisition partnership with local cashless brand CC Financial, while Tencent obtained a license for local transactions in Malaysia, as well as purchasing Sanook.com to rebrand as Tencent Thailand. However, they faced stiff regional competition from players such as GrabPay, Go-Pay and bank-backed ones such as Paylah.

12 <https://www.forbes.com/sites/jwebb/2017/09/28/alibaba-to-invest-15-billion-in-global-logistics-and-takes-a-controlling-stake-in-cainiao/#346265d4a034>

13 <https://www.reuters.com/article/lazada-strategy/planes-trains-and-automobiles-lazadas-logistics-battle-to-win-se-asia-idUSL8N1M906S>

14 <https://cointelgraph.com/news/alipay-s-parent-company-secures-14-bln-for-blockchain-development>

2.2 Background: Ant Financial

Ant Financial Services Group, rebranded from Alipay, was an affiliate of Alibaba Group. It provided the technology to allow customers on Alibaba's e-commerce sites including Taobao and Tmall to make purchases. With a huge customer base, it had developed a "complete online wallet" of services associated with payments, while also partnering with taxi-hailing services, cinema/theatre booking services etc. Alipay was increasingly used to pay for taxi rides and groceries. Even outside of China it was widely used as an alternative to cash and was ahead of Samsung Pay, Android Pay and Apple Pay in most Asian countries, including Japan, China, Thailand and Taiwan.¹⁵

On February 1, 2018, Alibaba acquired a third of Ant Financial to pave a way for an eventual IPO. By September 2018, at \$150 billion, it was the highest valued fintech in the world, almost double that of Goldman Sachs (\$88 billion).¹⁶ In addition to Alipay, it also operated the world's largest money-market fund, Yu'e Bao, and an online bank (MyBank).

2.3 Focus on Blockchain

In summer 2018, Ant Financial announced that it was actively developing and testing blockchain technology to implement on a large commercial scale.¹⁷ Zhang Hui, director of its Blockchain Department, said that blockchain's ability to process sensitive data and personal information in a peer-to-peer manner without the involvement of intermediaries was un-paralleled. While scalability was still an issue, he believed that Alibaba would eventually implement blockchain technology into all its core businesses and platforms. Ant Financial also announced the launch of a proprietary technology as a 'blockchain-as-a-service' with Kweichow Moutai, a well-known spirits company, as its first (non-financial) customer.

Beyond China, the strategy was to partner with companies in the Alibaba ecosystem such as Lazada in Indonesia or Paytm in India. Unlike other blockchain platforms (e.g., R3's Corda and Hyperledger's Fabric), Ant Financial targeted the middle level of applicability tailored to its partners.¹⁸ Key improvements were its scalability and speed to process transactions: 25,000 transactions per second (TPS). Competitors offered between 20 and 1,000 TPS.¹⁹ However, even greater speed was needed to cope with the expected volume of transactions in future.

Privacy was another issue given the widespread adoption of blockchain technology. In pure blockchain cases, everyone in the network was able to view the underlying data, which in most cases, companies preferred to keep private. Ant Financials' approach was to customize its application on a case-by-case basis, when appropriate adding privacy functions such as zero-

15 <https://www.ccn.com/150-billion-valued-ant-financial-makes-a-bit-bet-on-blockchain-technology/>

16 <https://www.cnbc.com/2018/06/08/how-ant-financial-grew-larger-than-goldman-sachs.html>

17 <https://www.ccn.com/150-billion-valued-ant-financial-makes-a-bit-bet-on-blockchain-technology/>

18 <https://www.digfingroup.com/ant-blockchain/>

19 *Ibid.*

knowledge proofs, a protocol which allowed one party to confirm validation of a block of data without seeing the underlying sensitive information.²⁰

The biggest challenge faced by blockchain technology, according to Ant Financial, was what it termed ‘anchoring’, described by Hu Danqing, head of Ant Financials’ blockchain product development, as the use of sensor chips or other devices to map a physical item or asset. For example, if blockchain were to be used to transact exports of milk from Australia to China, it needed to confirm the origin of the milk such that the buyer in China could trust the transaction. However, tracking the movement of the milk (or any financial transaction) was challenging. While the ‘obvious’ solution would be to encrypt/decrypt protocols, regulators might not allow the storage of encrypted information of its citizens or companies.²¹ Permission from regulators was thus critical to the widespread adoption of blockchain applications.

3. Applications of Blockchain and the Way Forward

3.1 GCash – Blockchain-based Cross-border Remittances

Globally, over 200 million migrants from low- and middle-income countries sent money home to their families, with remittance flows growing 4.2% annually, from \$296 billion in 2007²² to \$613 billion in 2017. Emerging markets received the bulk of the flow, led by India with \$69 billion, China (\$64 billion), the Philippines (\$33 billion), Mexico (\$31 billion), Nigeria (\$22 billion), and Egypt (\$20 billion).²³ An estimated 800 million people were directly supported by remittances and (including the senders) 1 billion were directly involved with remittances (one out of seven people in the world).²⁴

The remittance market was a loose network of hundreds of individual corridors linking ‘sender’ and ‘receiver’ countries. It had long been dominated by players such as Western Union and MoneyGram International, which imposed high service fees as well as unfavourable currency exchange rates. The average cost of sending remittances remained high at 7.45%. By reducing the average cost to 3%, senders stood to save \$20 billion annually. Technological advances had made it faster, cheaper and more convenient but the full potential had yet to be realized until the advantages of fintech became apparent to the remittance industry.

20 <https://www.digfingroup.com/ant-blockchain/>

21 *Ibid.*

22 <https://www.ifad.org/documents/38714170/39135645/Sending+Money+Home+-+Contributing+to+the+SDGs%2C+one+family+at+a+time.pdf/c207b5f1-9fef-4877-9315-75463fccfaa7>

23 <http://www.worldbank.org/en/news/press-release/2018/04/23/record-high-remittances-to-low-and-middle-income-countries-in-2017>

24 <https://www.ifad.org/documents/38714170/39135645/Sending+Money+Home+-+Contributing+to+the+SDGs%2C+one+family+at+a+time.pdf/c207b5f1-9fef-4877-9315-75463fccfaa7>

In Hong Kong – home to more than 200,000 Filipino workers – more than \$550 million was transferred annually back to their families.²⁵ Banks and remittance outlets charged about \$2 (HKD\$18) and typically imposed a commission or currency conversion fee on every transfer. In October 2017, Tencent partnered with EMQ, a Hong Kong fintech start-up, to bring a new feature, We Remit, to the WeChat app. Henceforth, users of We Remit could transfer money to the Philippines without paying a fee, although the transaction took up to 10 minutes.

Alibaba’s planned entry into the lucrative remittance market – by acquiring MoneyGram, a money transfer company headquartered in the US that would have given Ant Financial access to over 350,000 remittance outlets in nearly every country in the world – was blocked in January 2018 when the US government rejected the deal over national security concerns.

Undeterred, on June 25, 2018, Ant Financial launched a blockchain-based cross-border remittance service, GCash, that allowed Filipino workers in Hong Kong to securely, quickly and, most importantly, cheaply send money ‘home’ using a mobile phone. With the launch of GCash, users of AlipayHK (the Hong Kong version Alipay for mainland China) were able to transfer money within seconds to users of GCash, a mobile money service and wallet operated by Filipino telecommunications company Globe Telecom, which had 8 million users in the country. The GCash service, a joint venture with Globe Telecom, was offered in partnership with Standard Chartered Bank. GCash, the first blockchain-based, cross-border, digital wallet remittance service, promised real-time settlement, reliability, and a low-cost way to transfer money directly from Hong Kong to the Philippines at a competitive exchange rate. A few taps on AlipayHK (see Appendix 1) and the money would arrive in the GCash user’s account within seconds.

Once a user submitted a remittance application, all network participants (AlipayHK, GCash and Standard Chartered Bank) were notified. Thanks to blockchain technology, verification and execution of the transaction could happen at the same time. The sender and receiver could track the money through the entire process, from when the remittance was sent until it was received. At the launch of GCash, Jack Ma recounted:²⁶

“This comes from a promise I made a long time ago when Alipay was just launched... I have Filipino friends who asked me when they could use Alipay to send money home because it was too expensive through banks, which charge too much.”

3.2 Future of Alibaba in Blockchain Applications

Speaking at the annual China Development Forum on March 25, 2018, Ant Financials’ CEO Eric Jing called blockchain “the cornerstone of trust for the digital society in the future.” Of 406 patent applications related to blockchain in 2017, Alibaba had 43, second only to People’s Bank of China (PBOC) with 68.²⁷ A key pillar of its efforts was Ant Financial’s blockchain 2.0, which had evolved

25 <https://www.scmp.com/tech/china-tech/article/2152349/after-failed-moneygram-bid-ant-financial-goes-one-better-blockchain>

26 *Ibid.*

27 <https://smartereum.com/7630/how-alibaba-is-championing-the-application-of-blockchain-technology-in-china-and-beyond-sat-sept-15/>

from the initial blockchain 1.0 to become an open platform that was self-operating and decentralized for SMEs. Armed with other blockchain patents, Alibaba continued to seek ways to use the technology both within its ecosystem and as services to companies needing its technology.

The advantages of blockchain to enhance transparency in supply chains (recording transaction details and ensuring legal ownerships of assets etc) were increasingly apparent. Alibaba, through its subsidiary Lynx International, integrated blockchain technology to track information in its cross-border logistics services, thus providing indisputable records of shipment information such as production, transportation, customs, inspection and any third-party verification. Tmall (e-commerce) and Cainiao (logistics) adopted blockchain technology in their cross-border chain: goods for import and export were recorded via digital ledger. Details of the country of origin, shipping port, arrival port, mode of transport and customs were recorded and tracked on the new Alibaba blockchain cloud platform. Through this blockchain technology, consumers in regions covered by Cainiao were able to track information of over 30,000 goods from over 50 countries using Alibaba's e-commerce mobile app.²⁸

Zhong An, another company in the Alibaba ecosystem and the largest only insurer in China actively leveraged blockchain to transform the insurance industry. Tech unit chief Chen Wei said, "Insurance is backed by statistics and blockchain will help to connect that massive and varied data." He added that the company had data-sharing agreements with over 100 hospitals in China to streamline record verification and automatic claims. The company was also working with Shanghai's insurance regulatory bureau to build a blockchain-based reinsurance platform which would improve security and traceability of re-insured policies.²⁹

3.2 Future of Alibaba and Ant Financial in Fintech

Fintech was more than a buzzword in China. A 2018 Ernst & Young study reported that Chinese consumers led the world in adoption rates: 69% had used at least two fintech services.³⁰ Mobile payments and transfers were the most frequently used fintech service, with 83% of Chinese consumers making payments or money transfers on their phones; 58% using fintech platforms for savings and investments, 46% to borrow money. India was in second place (52% of consumers), further proof that the Asian economies had leapfrogged traditional banking and financial systems and embraced the latest fintech offerings.

On August 23, 2018, announcing Alibaba's financial results for the quarter ended June 30th, CEO Daniel Zhang commented:³¹

Alibaba had another excellent quarter, with significant user expansion and even more robust engagement across our growing ecosystem. Our China retail marketplace business continues to gain share, with new retail initiatives driving further revenue

28 <https://smartereum.com/4504/alibaba-e-commerce-giant-considers-blockchain-for-its-t-mall-with-with-cainiao/>

29 <https://www.scmp.com/tech/article/2148219/insurtech-giant-zhongan-touts-blockchains-transformational-power-signs>

30 <https://www.cnbc.com/2018/06/08/this-chart-shows-how-china-is-dominating-fintech.html>

31 https://www.alibabagroup.com/en/news/press_pdf/p180823.pdf

growth and enabling our retail partners to seamlessly serve customers. We are executing our plan of providing more value and choice to users along the consumption continuum, with digital entertainment and local service offerings that tap into big addressable markets beyond core commerce.

Alibaba continued to focus on strengthening its ‘Iron Triangle’ ecosystem. In May 2018, it completed the acquisition of Ele.me, one of the leading online food delivery platforms in China. Ele.me and Koubei, a leading local services platform, received a \$3 billion investment focused on in-store consumption in China, working together to provide a comprehensive local services offering that was core to Alibaba. Cainiao announced in June 2018 that it would lead a joint venture with China National Aviation Corporation (Group) Limited and YTO Express, and would invest US\$1.5 billion to build a world-class digital logistics centre at Hong Kong International Airport. In May 2018, Alibaba and Cainiao paid US\$1.38 billion for a 10% equity stake in ZTO Express, a fast-growing express delivery company in China, an investment to transform China’s logistics industry in response to new retail trends.

Alibaba’s cloud computing revenues grew an impressive 93% year-over-year to RMB4,698 million (US\$710 million), driven by both revenue mix towards higher value-added products and services and robust growth in paying customers. It continued cooperation with customers in a variety of industries, as well as growing its cloud presence in Asia where it opened cloud data centres in Singapore, Malaysia and Indonesia. Large enterprise customers and major partnerships included MinSheng Bank, IHG Hotel Chain, and China Communications Construction Group International – and further investments for long-term growth.

Alibaba and Ant Financial had conquered Southeast Asia with a series of acquisitions and investments starting with the launch of Taobao in Singapore in 2013, followed by stakes in Singapore Post for logistics, and Lazada and Redmart for e-commerce. They were now poised for cross-border and international growth, particularly through investments in Lazada. Business was divided into three segments: C2C marketplace, branded flagship store mall (LazMall) and cross-border e-commerce (LazGlobal). There were plans to connect consumers in Southeast Asia with Taobao Collection businesses and sellers from other countries where Lazada did not have a presence. Alibaba emphasized its commitment to the Southeast Asian market, pledging to continue to invest in Lazada’s growth and customer reach.³² On the third side of its ‘Iron Triangle’ in Southeast Asia, Alipay had started in September 2013 and within five years had acquired stakes in payment companies such as M-Day, True Money, Asecent Nano, Mynt, Lazada Wallet, and Touch ‘n Go.³³

By 2018, Alibaba and Ant Financial were undisputedly the world’s largest e-commerce company and fintech company. Li Wang, head of EMEA at Alipay, said the two juggernauts were still growing annually by more than 50%.³⁴ She added that Alipay had 870 million active users, 600

32 https://www.alibabagroup.com/en/news/press_pdf/p180823.pdf

33 <https://www.techinasia.com/alibaba-empire-southeast-asia>

34 <https://www.cnn.com/video/2018/06/05/alibaba-is-massive-but-still-growing-at-more-than-50-percent-yearly-alipay-emea-head.html>

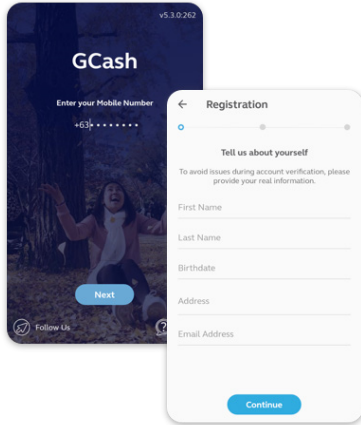
million of them in China and 270 million in the rest of the world.³⁵ However, regulators were increasingly concerned about potential risks to the financial system posed by fintech companies like Alibaba and Ant Financial. In China, regulators imposed a series of curbs that could curtail the rapid pace of expansion: Alipay and WeChat Pay were now required to process payments through a central clearing account, and payments received from their users had to be deposited at commercial banks rather than held in escrow accounts.

Class Discussion Questions

1. How does blockchain-based remittance fit into Alibaba's cloud offerings?
2. What unique value does blockchain technology provide in Alibaba's remittance offering?
3. What are other areas of application for blockchain in Alibaba's cloud business?
4. What is Alibaba's strategy to overcome the 'chicken-and-the-egg' problem of insufficient transaction liquidity and eventually achieve network effects with its blockchain remittance service?

35 *Ibid.*

Appendix 1 *Installing GCash*



Download the GCash App

Step 1

Download the GCash App through the [Google Play Store](#) or [App Store](#).

Step 2

Enter your mobile number.

Step 3

Fill in your personal details such as first and last name and email address.

Step 4

Nominate a 4-digit Mobile PIN (MPIN) to use in all your GCash transactions.

Or register through Messenger

Step 1

Open the Messenger App and search for @gcashofficial.

Step 2

Select the option menu and select 'Account'.

Step 3

Select 'Start an Account'.

Step 4

Select 'OK' to confirm your mobile number.

Step 5

You'll receive a verification code via SMS. Enter this into Messenger.