

Customer expectations, technology and regulation demand financial organizations update payments systems before the next wave of disruption.

# Three forces pushing banks to modernize payments infrastructure

Payments systems have always been complex and a critical part of the banking world. But over the past decade, dynamic changes within payments have created even greater challenges for financial organizations and have driven the need for payments transformation. In particular, more complex regulation, advancing technology and demands from customers to create a consistent, seamless experience across multiple channels are pushing banks, FinTechs, and payment processors to invest heavily in payments modernization. Upgrading infrastructure to address these challenges, while keeping costs under control, requires financial organizations to first understand the drivers of change.

Continued on page 3

# Editoria



Welcome to the first issue of #payments for 2020.

In this newsletter, we explore a diverse set of topics that we know are top of mind for many financial institutions this year.

- The ongoing challenge to modernize payments architecture is explored in an article by Mike Chamas that discusses how optimizing legacy assets and taking an end-to-end perspective when planning upgrades are keys to success.
- ► The rapid growth of **mobile money schemes** in Sub-Saharan Africa is boosting financial inclusion for the region and also attracting the interest of many foreign players. It's a market that offers new opportunities for growth, but is not without risk a carefully considered entry strategy is critical to success.
- The quest to find new competitive advantage is one driver behind some acquirers taking on issuing capabilities. This article outlines key considerations of the strategy.
- Our update on M&A activity and venture capital funding for Q4 shows both remain buoyant, highlighting the strong appeal of the sector to investors and a continuing trend towards consolidation.

In the face of this Global pandemic, we understand that firms are focused on what this means for our global economy and how they will need to respond. Our teams are here to help you navigate through these uncertain times. Please do not hesitate to contact me to discuss the challenges you are facing in the current climate.

**Andreas Habersetzer** 

EMEIA Payments Strategy & Transactions Advisory Leader



### Three forces pushing banks to modernize payments infrastructure

Customer expectations, technology and regulation demand financial organizations update payments systems before the next wave of disruption.



### How Africa's growing mobile money market is evolving

Africa's fast-growing mobile money market offers opportunities to boost financial inclusion and tap the continent's economic potential.



### Can issuing capabilities strengthen acquirers' competitive position?

Since European Union (EU) regulators introduced a fee cap on credit card transactions, acquirers have been seeking new ways to boost margins. Some are now issuing their own cards, to protect profitability and create competitive advantage.



### M&A activity and deal characteristics

Activity increased in the final quarter of 2019, with 46 disclosed transactions, up from 43 in Q3.



Venture capital funding activity



# Three forces pushing banks to modernize payments infrastructure

### 1. Technology

The legacy payments architecture of most financial institutions is inflexible, partly because of dependence on multiple vendors. This both increases the total cost of ownership and creates several challenges for institutions:

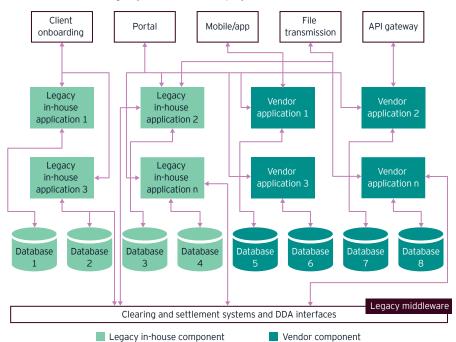
- Platforms and applications are fragmented
- Monolithic architecture does not allow for nimble changes
- Bringing changed or new products and services to market takes a long time
- Financial organizations depend on multiple vendors, all with aging systems
- High risk of systems' inability to respond to regulatory mandates, cybersecurity and environmental threats

In essence, legacy systems simply lack the agility and scalability required to respond quickly to changing customer demands. Modernizing payments infrastructure to meet these demands is fast becoming a competitive imperative for financial organizations, particularly as new payment channels emerge and gain traction. Unless these organizations can quickly and seamlessly integrate these new channels, they will struggle to retain and grow their customer base.

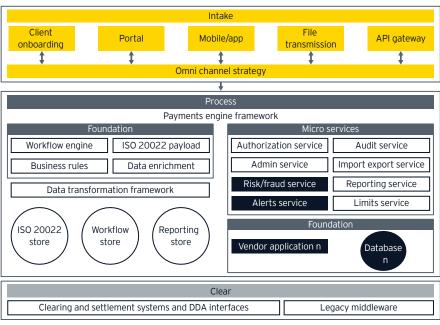
### 2. Customer experience

Today's consumers demand convenience in almost every aspect of their lives. The rise of on-demand services across mobility, entertainment, food and beyond means payments must also evolve to enable these real-time transactions. Customers want to make and receive payments at any time and via any channel – and they expect funds to be transferred in real-time.

### Legacy monotheistic payments architecture



### Modern payments architecture



☐ In-house component

Vendor component

# 04

### #payments Volume 26

But, they are not ready to sacrifice security for seamless experiences. Customers have increasingly high expectations around strong authentication measures across payment channels, and expect all fraud, risk management, and exception management activities to be in place. They also value consistency of experience and information across channels.

### **Innovation**

Innovation is reshaping payments on a scale and at a speed seen in few other sectors. Within just a few years, advancing technology has not only changed how we pay, but expanded the pool of payment players far beyond the financial sector. Many new providers bring superior understanding of the customer experience deployed in sectors, such as retail, technology and entertainment.

The innovation transforming payments is also increasing the complexity of the payments environment. Systems must be able to layer in multiple vendors to facilitate certain payments capabilities. And nimble, modern and scalable architecture is needed to provide the "plug and play" experience required as the move to open banking and the emergence of the Banking as a Service (BaaS) model drives further sector disruption.

### 3. Regulation

In a post financial crisis world, regulators are holding financial organizations to a new, higher level of accountability. Recently, key regulators have appeared to indicate that financial organizations not only need to provide end-to-end payments reporting, but must demonstrate end-to-end payments operations that treat critical functions as a business.

At the same time, the growing adoption of open banking and implementation of PDS2 in Europe is driving a move toward standardization to govern the consistent use of APIs. In the European Union, the Berlin Group – a collection of more than 40 financial organizations, associations and payment service providers – is leading the creation of interoperability technical standards and harmonization initiatives, and we expect to see similar activity in the US and other markets.

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### Customer experience

### Heightened customer expectations:

- Demand for speed and convenience
- Seamless end-to-end user experience
- Speed to market and "faster payments"
- Immediate availability of funds

New, innovative products to enhance efficiency of payments:

- Need for scalable, real-time, and user friendly solutions
- Increased API connector enablement to address system integration needs
- New, digitized capabilities that enrich current products and payment types



### Innovation

For financial organizations, meeting these obligations will require payments systems with the ability to track transactions to provide the consistency and transparency regulators demand and the options customers expect.

## An end-to-end business perspective drives successful transformation

Customer demands, innovation and regulation have been reshaping payments ever since the first transaction was made. But, the impending disruption of BaaS is creating a new urgency for financial organizations to modernize architecture at speed to take advantage of emerging trends while controlling costs. With both existing and new rails requiring maintenance and updates, now is the time to build payments infrastructure with scalability and flexibility fit for the future.

However, investing in new systems and processes before optimizing those already in place is a waste of time and budget. Modernizing payments starts with optimization of legacy systems through an end-to-end business system analysis that identifies key metrics, including costs, transaction volumes, processing times, and other key requirements that may vary across segments.

These costs and metrics will highlight priorities for improvement, and ultimately, enable each bank to understand customers' requirements along the entire payment journey and across every channel. This can allow financial organizations to develop



Customer

experience

Innovation

Regulation

### Regulations

### Trend towards open architecture:

- Regulation is fast tracking customer-centric banking
- New, level playing field for FinTechs
- Increased scrutiny on privacy, security, resiliency, and resolution planning
- Modernized, secure payments that provide customers customizable options

shared infrastructure and processes to exploit commonalities across these paths and channels while building in flexibility to accommodate key differences. A proven framework that outlines how to modernize legacy systems can help financial organizations make improvements now and be ready to embrace the enhancements and technologies that help build a truly differentiating customer experience in the future.

As mobile money prepares to dominate the SSA payments' landscape, organizations keen to take advantage of its potential must prepare an entry strategy with care. Successful participation will require an in-depth knowledge of the different types of mobile money operator models, as well as an understanding of the development stage of each specific market. A tailor-made plan that considers long-term strategic objectives will stand the best chance of success, though, as the changing landscape in Nigeria demonstrates, an ability to adapt fast to local conditions will also be critical.



Ritesh Kirad



Patricia Partelow



Mike Chamas

# How Africa's growing mobile money market is evolving

Africa's fast-growing mobile money market offers opportunities to boost financial inclusion and tap the continent's economic potential.

Around the world, mobile money schemes are growing fast, with emerging markets as the epicenter of activity. Sub-Saharan Africa (SSA) is experiencing the most growth, with mobile money deployments increasing 39% annually over the past decade, and both transaction volume and value seeing double-digit growth.

But even as the value of mobile money transactions reached 6.4% of SSA's GDP in 2018,<sup>3</sup> this still falls far short of the 20.4%<sup>4</sup> share of GDP currently held by credit cards in the European Union (EU) in 2018. The growth potential of mobile money in SSA remains huge for investors who know where and how to place their bets.

- <sup>1</sup> GSMA
- $^{\rm 2}$  GSMA
- 3 GSMA, Worldbank
- <sup>4</sup> ECB Payment statistic
- <sup>5</sup> Financial times

# Embracing an untapped market

Foreign investors are already increasingly active in the SSA mobile market, as evidenced by recent landmark funding in Nigeria:

- OPay raised US\$120m in the Series B funding round led by Chinese investors
- PalmPay raised US\$40m in seed funding, led by Chinese mobile phone company Transsion
- Paga raised US\$10m in the round led by Global Innovation Fund

The OPay and PalmPay fundings occurred within the same week and dwarfed most previous investment in African FinTech. The main driver for the influx in investment is the decision by Nigeria's central bank to open up the market to non-bank providers. The opportunity on the offer is gigantic – 95% of transactions in Nigeria are currently

95%

of transactions in Nigeria that are cash-based

cash-based and 60% of adults are without bank accounts.<sup>5</sup> Across SSA, the potential is similarly huge. According to the International Monetary Fund, only 43% of adults in the region had either a bank or mobile money account in 2017. With the mobile money market set to surge, understanding the value chain, business models and stages of market development can help potential investors make the most of the opportunity.



# Understanding a complex value chain can help identify investment potential

The traditional mobile money value chain has five parts, which can be covered by banks, mobile network operators (MNOs) or third parties, such as FinTechs:

- Deposit holder: Mobile money customers exchange cash for mobile money credits. The deposit holder holds this cash, in a tightly regulated part of the value chain usually handled by banks.
- ▶ Electronic money issuer: The electronic money issuer issues customers mobile money credits in exchange for cash. These businesses must guarantee they will always have enough liquid funds to pay out customers that might decide to redeem their credits for cash. Usually a license is required for this heavily regulated part of the value chain.
- Agent network operator: This player recruits, trains and manages the agents who handle customers' transactions. These agents are often small retailers or postal outlets best positioned to target unbanked and often rurallybased customers.
- Payment service provider: These companies provide the technical and commercial infrastructure used by merchants and agents to process transactions. They are only required in a B2C context, not in the typical P2P transactions.

► Telecom network provider: The telecom network provides the communications infrastructure which hosts the technical and commercial infrastructure.

These functions can be covered by different providers, as we see in the prevalence of several mobile money operating models.

- Bank-led: The bank covers all functions except for those of the telecom channel. This model, as employed by Nigeria's EcoBank, is similar to that of mobile banking, with mobile money markets relying on existing bank branches and affiliated agents.
- Mobile network operator-led: Nigeria's reforms have opened the doors to many new mobile money services, including those run by MNOs which rely on local agents, such as stores or post offices, to spread their services.<sup>6</sup> The success of MNO-led schemes lies in having a large network of agents in rural areas which are often home to large unbanked populations.

An example of this model is Kenya's Safaricom, which covers every part of the chain except holding deposits, which is done by the Kenyan central bank.

► FinTech-led: In this model, demonstrated by Uganda's Micropay, the mobile money operator (MMO)

6 https://qz.com/africa/1679567/mtn-to-kickstart-mobile-money-in-nigeria/



does not hold deposits or provide the telecom channel – but, it does everything else. These MMOs act as a platform where partners offer various value-added services, such as financial products, airtime, data or voice packages. This model is becoming more prevalent and we're seeing providers that begin with other business models transition to platforms once they have a strong customer base.

# Mobile money markets are at varying stages of development

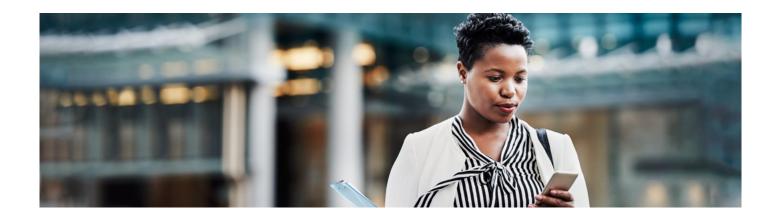
These business models are constantly evolving in what is a dynamic environment. Three stages of development across the SSA MMO market can help potential investors determine an appropriate entry strategy:

▶ Emerging: In regions where mobile money is still in the early stages – for example, in Cote d'Ivoire and Senegal – the market tends to be characterized by a high proportion of cash in or cash out payments that always involve an agent, driving up the cost per transaction for providers and limiting a scheme'sprofitability.

Investors that move into these markets will need deep local knowledge to understand how to drive customer adoption, be prepared to take risks and have deep pockets to support losses during the first phase. Players with this combination of characteristics may include local banks, telcos and well-funded startups. Others may be challenged and should reconsider investment in this environment, or at least seek local expertise before making a move.

▶ Growth: Markets in the growth stage, such as Mozambique, experience fast consumer adoption and increasing competition between providers. At this point, the share of transactions within a scheme typically grows, increasing its profitability as transactions in the same network have essentially zero marginal cost.

Investing in schemes at this stage, and within large addressable markets, can yield large returns, but choosing



the right scheme can be challenging. Investors will need to have a strong knowledge of market characteristics as well as an appetite for risk.

► Mature: Kenya is the best example of a mature mobile money market. Here, penetration is above 100% due to many customers holding multiple SIM cards. M-Pesa controls more than 80% of the Kenyan market, showcasing the "winner takes all" dynamics of mobile money. High adoption of the scheme sees it morph into a quasi-currency, and most transactions are "within-network." Adjacent services within the ecosystem of prominent schemes gain traction, presenting smaller opportunities for investment. Start-ups can use existing infrastructure – for example, remittance providers can offer mobile money payouts or interoperability across schemes, e.g., smoothly transferring money from Orange to M-Pesa.

Investment into schemes at this point is not always possible but, if so, is usually a more conservative play, with modern risk and return prospects.

# Success requires both preparation and adaptability

As mobile money prepares to dominate the SSA payments' landscape, organizations keen to take advantage of its potential must prepare an entry strategy with care. Successful participation will require an in-depth knowledge of the different types of MMO models, as well as an understanding of the development stage of each specific market. A tailor-made plan that considers long-term strategic objectives will stand

Mobile money markets maturity model: three stages of development

3

### Mature Stage

- Most transactions are "within-network" at this stage due to the scheme being a quasi-currency at this point
- Adjacent services within the ecosystem of prominent schemes gain traction, presenting smaller opportunities for investment

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### **Growth Stage**

- Increasing uptake of mobile money as a means of payment as well as fierce competition between providers
- ▶ POS transactions gain increasing importance
- ► Due to "within-network" transactions having essentially zero marginal cost, scheme profitability increases

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### **Emerging Stage**

- High proportion of payments not staying within the network but being cash-in/-out
- ▶ Drives up transaction cost and thus limits profitability for the scheme

the best chance of success, though, as the changing landscape in Nigeria demonstrates, an ability to adapt fast to local conditions will also be critical.

### Summary

The mobile money market is rapidly reshaping SSA's payments sector and attracting more foreign investors interested in tapping the potential of a large underbanked population. Understanding the complex value chain of this market, and its different stages of development, can help investors devise a successful entry strategy.



Jonas Koch



Kai Rovenich



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# Can issuing capabilities strengthen acquirers' competitive position?

Since European Union (EU) regulators introduced a fee cap on credit card transactions, acquirers have been seeking new ways to boost margins. Some are now issuing their own cards, to protect profitability and create competitive advantage.

2020 marks five years since the EU introduced a 0.3% interchange cap on credit card fees, to both simplify payment structures and lay the groundwork for a consistent EU payments market. The first few years following the cap's introduction, saw many acquirers - banks that process transactions for merchants earn significant "windfall profits" as merchants worked through the process of renegotiating contracts. However, as more switch from blended rate models to the "Interchange++" model - where interchange and scheme fees are passed through to the merchant as incurred these fees have reduced.

At the same time, large merchants have put more focus on payments, not just to improve customer experience but to optimize costs. These merchants are



The retailer could achieve what is a critical aim for large merchants – taking control of the customers' entire payments experience from card design, loyalty app to checkout at the point-of-sale.

tough negotiators, often at the expense of acquirers' margins. In fact, in some cases, acquirers are experiencing negative margins on transactions with large merchants. The only benefit is the increased payment volume that in turn lowers their cost with card networks.

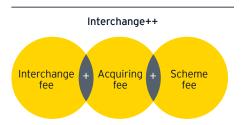
### Benefits for both merchants and acquirers

In a bid to shore up profitability, several international acquirers have recently begun issuing cards to better serve their marketplace merchants and platform suppliers (mainly micro merchants). This ability to both issue and acquire also delivers strategic advantages for acquirers. When one organization owns both sides of the transaction, it effectively controls the entire payments process from the customer perspective.

Let's see how this might work. An acquirer could collaborate with a large retailer to issue a co-branded credit card to the retailer's customers, with benefits to both parties.

The retailer could achieve what is a critical aim for large merchants - taking control of the customers' entire payments experience from card design, loyalty app to checkout at the point-of-sale. It can offer new loyalty benefits that conventional schemes cannot, such as financing for in-store purchases or real-time discounts at checkout.

Moving from a blended rate model to the "Interchange++" model



Interchange++ is a price structure in which the costs incurred for the merchant are broken down into three separate components:

Interchange fee Fee to be paid by the acquirer to the card issuer

Acquiring fee

Fee charged by the acquirer to the merchant to provide payment services

Fee to be paid by the acquirer to the card scheme for processing

In contrast to a conventional pricing model in which the merchant pays a blended fee to the acquirer, Interchange ++ offers a greater

transparency with regard to the costs incurred.

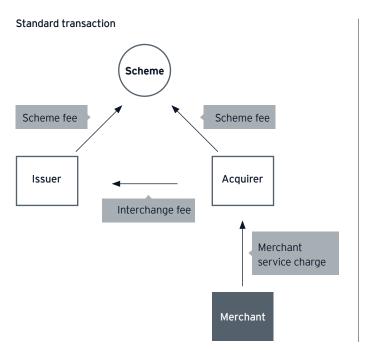
the transaction

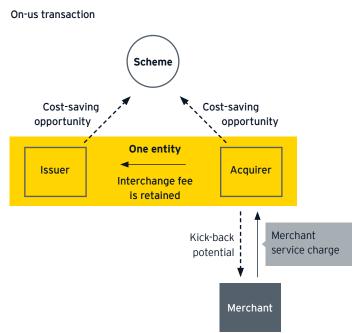
▶ The acquirer has no impact on scheme and interchange fees and only passes them on directly to the merchant.

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### #payments Volume 26

Fee structure for a standard transaction vs. an on-us transaction







A supermarket could improve the online shopping experience by reminding customers of their last shopping list or most often-purchased items. And the retailer can expand its offerings with new services, including warranty extensions, insurance, e-receipts and e-invoices.

For acquirers, issuing the card allows them to retain interchange fees, enabling the generation of further income per transaction without additional cost. And, depending on the specific acquirer's technical setup, these transactions may be processed "on-us," creating costsaving opportunities with card networks.

# Gaining a competitive edge on rivals

As well as the boost to margins, these cost savings can become a competitive advantage for acquirers who think strategically. In the past, acquirers with issuing capabilities, which were usually large banks, held onto the extra income from retained interchange fees and potential cost savings from "on-us" transactions. But, we may see more acquirers deciding to share the cost benefits with merchants. For example, in the case of the co-branded credit card, since every transaction made with the card is "on-us," the acquirer can potentially reimburse part of the income from interchange fees and cost savings back to the merchant. Merchants that capitalize on loyalty schemes to drive higher transaction values on the card can decrease their cost-of-card acceptance while boosting the benefits of "on-us"

transactions. In this way, encouraging more volume on the card incentivizes both acquirer and retailer.

Of course, whether acquirers choose to share extra income with merchants or keep it to themselves is up to them. But, as competition to win the business of large merchants increases, acquirers with issuing capabilities can get an edge on rivals while protecting margins.

EY teams work with both acquirers and merchants to improve profitability. For a discussion of the opportunities for your business, please get in touch.



Florian Seeh



Lukas Kohlmorgen



Stefan Thomalla



Carina Herbers

# M&A activity

# Activity increased in the final quarter of 2019, with 46 disclosed transactions, up from 43 in Q3.

Total disclosed transaction value during the quarter reached US\$6b (down from US\$6.6b in Q3), largely driven by the acquisition of Honey Science Corporation (Honey) by Paypal. With deal value and volume in Q4 largely in line with that of the previous quarter, signs are strong that the market for payments transactions remains buoyant.

# M&A activity and deal characteristics



# Paypal's Honey deal dominates guarter

The biggest deal by far this quarter was the announcement by PayPal Holdings, Inc. of its largest acquisition ever – a 100% stake in Honey for US\$4b in cash.7 Based in Los Angeles, Honey is a digital shopping and rewards platform that automatically adds online coupons and incentives when ecommerce shoppers browse for deals. The addition of Honey will help PayPal move beyond their core checkout proposition and significantly enhance the shopping experience for consumers and merchants. For Honey, the deal will accelerate growth through access to PayPal and Venmo (a digital account similar to PayPal) and their more than 275 million active consumer accounts. Honey will also be able to source exclusive offers from PayPal's network of 24 million merchants.

# Transactions help buyers scale and expand offerings

Another notable deal this quarter was South Korea's KG Mobilians Co. Ltd.'s acquisition of Allat Corporation for an implied enterprise value of US\$429m.8 Allat Corporation, also based in South Korea, operates in the electronic payment gateway market, specializing in online-to-offline (O2O) commerce. The transaction will enable KG Mobilians to gain scale to compete more effectively and tap into South Korea's evolving O2O market that is increasingly penetrating local service businesses, such as food delivery.

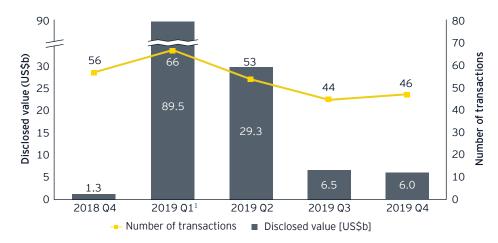
Also in Q4, AML Payments Limited acquired Prepaid Financial Services (Ireland) Limited for US\$360m.9 Prepaid Financial Services is a white label prepaid card issuer that has increasingly positioned itself as a payments and

### 66

total deal value

Strong M&A activities in payments, even in the midst of geopolitical uncertainties, indicate the continued resilient performance of this market.

### M&A market development



Note: 1. Includes two major announced deals: US\$43.4b acquisition of Worldpay by FIS and US\$41.3b acquisitic of First Data by Fiserv.

Source: EY analysis, Capital IQ, Mergermarket

<sup>&</sup>lt;sup>7</sup> Source: Capita IQ

<sup>8</sup> Source: Capita IQ

<sup>&</sup>lt;sup>9</sup> Source: Capita IQ

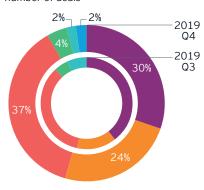




Consolidation will drive a strong M&A market in 2020 as providers use acquisitions to bolster their ability to offer a superior customer experience.

### Targets by region

Represents % share of each region by number of deals

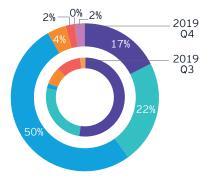


- North America
- Asia
  Europe
- Middle East, Africa (MEA)
- South America
- Australia

Source: EY analysis, Capital IQ, Mergerstat M&A Database, Company websites

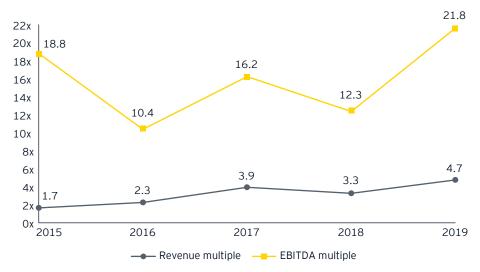
### Targets by segment

Represents % share of each segment by number of deals



- Payment acceptance devices
- Processing
- Alternative payment systems
- Money transfer
- Issuing
- ATM
- Couponing and loyalty
- Security
- Acquiring

Median enterprise value multiples



banking-as-a-service technology provider. The transaction complements EML's existing solutions suite, adds digital banking and multi-currency to its offering and expands the company's global market footprint beyond Australia, US, Canada and the Nordics.

### Valuations soar

Valuations hit a four year high in Q4, with the median EBITDA multiple for all disclosed deals year-to-date reaching 21.8x compared with 12.3x in Q4 2018. The median revenue multiple for the same period also increased from 3.9x to 4.7x.

### Deal by region and segment

In Q4 2019, deal targets were based in:

- ► North America 30.4%
- ► Europe 37.0%
- Asia 23.9%

The need to gain new capabilities, for example, the ability to manage complex regulations such as PSD2 and increase scale, has driven much of the recent M&A activity within payments.

### M&A outlook

Throughout 2020, we expect the theme of consolidation to continue. Payment service providers are likely to be increasingly interested in payments adjacencies (e.g., PayPal's Honey deal), as they focus more on consumer and merchant experiences.



Dawei Wang

# Venture capital funding activity

Q4

2019 at a glance:

80

venture capital (VC) deals – a c.33% decrease from Q3 2019

US\$3.6b

total VC deal value

US\$1.0b

investment in **Paytm** was the biggest VC deal of Q4

The decline in total value and volume of deals in Q4, compared to the previous quarter, was primarily due to a slowdown in activity over the holiday season.

# Processing attracts almost one-quarter of investments

VC investment trends in Q4 mirrored those seen in previous quarters, with most investors targeting early stage and seed investments. Deals involving processing were particularly attractive, accounting for 24% of investments, while alternative payment systems (23% of deals) and payment acceptance devices (18% of deals) were also of interest to VC players.

This quarter North and Central America attracted more than a third (34%) of the deals, followed by Europe (28%) and Asia (24%). However, it was Asia that led in terms of deal value, attracting 37% of VC funding, much of it contributed by the US\$1b funding for Paytm, an India-based provider of a digital payment platform. Europe accounted for 32% of the quarter's VC deal value, and North and Central America realized 24% of investment.

Developed economies continue to be the hub of VC investment in payments, with investors keen to tap the large addressable opportunity on offer across North America, Europe and Asia.



As more businesses emerge to solve longstanding payments pain points, such as crossborder transactions or domestic point-of-sale, opportunities for VC investors are growing.

# Billion-dollar boost for Indian platform

Paytm was the target of the quarter's biggest VC investment, attracting US\$1b of funding in a round led by T Rowe Price. Investors included existing investor Ant Financial (US\$400m), SoftBank Vision Fund (US\$200m) and Discovery Capital. The funding, which increases Paytm's overall valuation to US\$16b, will help the company acquire more customers and offline merchants in smaller towns, as well as add online merchants across India.<sup>10</sup>

Another major deal in Q4 was Banco Santander's US\$453m investment in Ebury, a London-based start-up, which provides services including foreign exchange, cash management and trade finance for small- and medium-sized businesses. The transaction gives Banco Santander a 50.1% stake in the company. Ebury, which already operates in 19 countries and 140 currencies, plans to use the investment to enter new markets in Latin America and Asia, where there are significant untapped market opportunities, particularly in the SME-segment.<sup>11</sup>

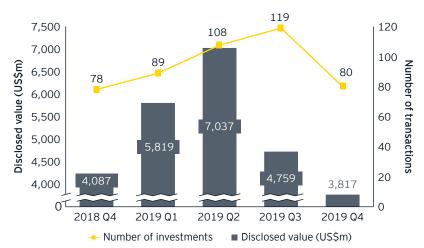
Also this quarter was a US\$200m investment in US-based blockchain firm, Ripple, by Tetragon Financial Group with participation from SBI Holdings and Route 66 Ventures. This latest round of investment has lifted Ripple's valuation to a huge US\$10b. The company's global payments network RippleNet now has more than 300 customers worldwide, including a new strategic partnership with MoneyGram. The new funding will expedite Ripple's plans to build out a global network to meet market demands and better serve its growing community of customers and partners.<sup>12</sup>

<sup>10</sup> Pavtm

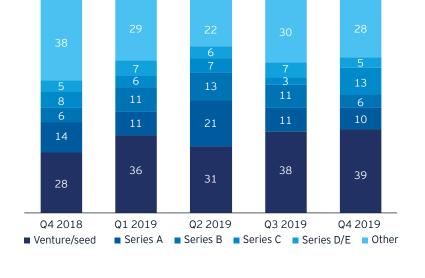
<sup>11</sup> Ebury

<sup>12</sup> Ripple

### Venture capital deal



### Number of deals by funding stage (in %)



### VC investment trends

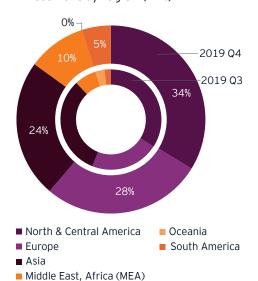
Based on recent investment trends, we expect VC activity in 2020 to focus on:

- Fewer funded companies, but larger round sizes
- Continued investment and interest in the B2B/B2C payments sector, as payment providers seek funding to expand geographically and diversify product portfolios
- Digital currencies, which after a brutal sell-off in 2018, are starting to see more activity from big players such as JP Morgan and, most notably, Facebook. The social networking giant's ambitious cryptocurrency project Libra is creating a buzz in investment circles.

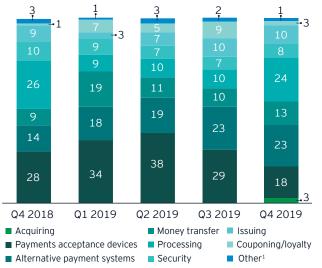


Dawei Wang

### Investment by region (in %)



### Investment by sectors (in %)



Note: 1. Includes ATM, Acquiring and Data analytics



	Date announced	Target company	Country	Target description	Buyer(s)	Country	Enterprise value (US\$m)	Stake (%)
1	01 October 2019	Ewally Tecnologia E Servicos S.A.	Brazil	EWALLY TECNOLOGIA E SERVICOS S.A. develops a mobile application for processing financial transactions. The application allows users to pay, charge and recharge bills; and transfer money. The company is based in Sao Paulo, Brazil.	Atacadão S.A.	Brazil	_	49%
2	03 October 2019	Cash Payment Solutions GmbH	Germany	Cash Payment Solutions GmbH provides an electronic cash payment solution. It offers an online cash payment system that enables customers to shop online, pay their electricity, rent, telephone, Internet service and insurance bills, play online games, deposit and withdraw money, and book trips. The company serves the e-commerce, gaming, travel, claims management, bank, housing, telecommunication, utility, and insurance industries. It sells its products through retail partner stores. Cash Payment Solutions GmbH was founded in 2011 and is based in Berlin, Germany.	Glory Ltd.	Japan	-	53%
3	03 October 2019	Payius AB	yius AB Sweden Mortgage Bankers And Correspondents, Nsk		Elavon Inc.	United States	_	100%
4	03 October 2019	PT Weyland Indonesia Perkasa	Indonesia	PT Weyland Indonesia Perkasa designs and develops an online payment mobile application, known as Atozpay. The company was founded in 2018 and is based in Jakarta, Indonesia.	Weyland Tech Inc.	United States	_	31%
5	04 October 2019	Cloud Payments International, LLC	Latvia	Cloud Payments International, LLC designs online payment solutions for the e-commerce market. It offers a CloudPayments system, a universal system for processing payments with bankcards via international payment systems, such as Visa and MasterCard. It also provides payment and return of funds (refund) in rubles and other global currencies. Cloud Payments International, LLC was founded in 2014, is based in Riga, and operates as a subsidiary of TCS Group Holding PLC.	Joint Stock Company Tinkoff Bank	Russia	-	5%
6	07 October 2019	October Midwest POS United Midwest POS Solutions, Inc. manufactures por Solutions, Inc. States of-sale (POS) solutions for retail entities, restaurants, and businesses. The company was formerly known as Burgauer Business Machi Midwest POS Solutions, Inc. was founded in and is headquartered in Anderson, Indiana. 7 October 2019, Midwest POS Solutions, Inc.		Midwest POS Solutions, Inc. manufactures point- of-sale (POS) solutions for retail entities, restaurants, and businesses. The company was formerly known as Burgauer Business Machines. Midwest POS Solutions, Inc. was founded in 1943 and is headquartered in Anderson, Indiana. As of 7 October 2019, Midwest POS Solutions, Inc.has operated as a subsidiary of NCR Corporation.	NCR Corporation	United States	-	100%
7	08 October 2019	NU BN Servicios Mexico, S.A. de C.V.	Mexico	NU BN Servicios Mexico, S.A. de C.V. offers consumer finance services. The company provides issuance, administration, transfer, and payment services related to post-paid payment instruments. NU BN Servicios Mexico, S.A. de C.V. was founded in 2019 and is headquartered in Miguel Hidalgo, Mexico.	Jaguar Ventures	Mexico	-	-



	Date announced	Target company	Country	Target description	Buyer(s)	Country	Enterprise value (US\$m)	Stake (%)
8	08 October 2019	ClearCare, Inc.	United States	ClearCare, Inc. develops a cloud-based platform for large and local homecare services companies to run their operations. The platform offers customer relationship management, marketing tools, hospitalization tracking, reporting and analytics, applicant tracking, a caregiver portal and training, employment screening, work compensation insurance, carefinder scheduling, billing and payroll, payment processing, human resources, overtime tools, and electronic claim services. The company helps marketers, schedulers, billers, caregivers, healthcare providers, care recipients, and recruiters. ClearCare, Inc. was founded in 2010 and is based in San Francisco, California. Since 2 November 2019, ClearCare, Inc.has operated as a subsidiary of WellSky Corporation.	WellSky Corporation	United States	235.0	100%
9	09 October 2019	Priority Vendor Technologies Pvt. Ltd.	India	Priority Vendor Technologies Pvt. Ltd. designs and develops a cloud-based vendor payment platform, which facilitates payment to vendors of their approved invoices. The company's software can be integrated into the buyer's resource planning software, which uses artificial intelligence to calculate the discount rate based on data points, such as supplier behavior, participation record in offering discounts, cost of capital and the buyer's size. The company was founded in 2009 and is based in Noida, India. Since 9 October 2019, Priority Vendor Technologies Pvt. Ltd. has operated as a subsidiary of Pollen, Inc.	Pollen, Inc.	United States	-	100%
10	14 October 2019	BILLHIGHWAY, INC	United States	BILLHIGHWAY, INC provides cloud-based solutions that combine payment processing, banking, and accounting for financial processing in real-time for non-profit organizations. It offers Billhighway Connect, a solution to integrate frontend data and payments originating from CMS or payments processing portals with accounting, payroll, and banking systems or CRM databases; and Billhighway Enterprise, a cloud-based financial solution for nonprofits and associations with group or chapter structures. The company also provides accounting, cash management and disbursement, accounting systems of record, bank reconciliation, donor and member management, reporting, payments processing, and online banking solutions. It serves community groups, faith-based organizations, youth and athletic programs, professional associations, political parties, campaigns and groups focused on social change, and fraternal organizations and clubs in the US. BILLHIGHWAY, INC was founded in 1999 and is based in Troy, Michigan.	Lovell Minnick Partners LLC	United States	-	100%

	Date announced	Target company	Country	Target description	Buyer(s)	Country	Enterprise value (US\$m)	Stake (%)
11	14 October 2019	Assets of APS Payments Inc.	United States	As of 14 October 2019, assets of APS Payments Inc. (integrated payment processing services) were acquired by M&A Ventures, LLC., and are located in the US.	Thunder Bridge Acquisition, Ltd.	United States	60.0	100%
12	21 October 2019	Kounta Pty Ltd	Australia	Kounta Pty Ltd provides cloud-based POS software to add, sell, and update inventory; centralize management and reporting; connect to other online and mobile services; reward loyal customers with points and rewards, and invite teams to stores. The company also operates and maintains an online community with knowledge-based articles, forums and requested submissions. In addition, it offers online and email support, hardware, setup, and training services. The company was founded in 2012 and is based in Chippendale, Australia, with additional offices in Redfern, Australia and Palo Alto, California. Kounta Pty Ltd has operated as a subsidiary of Lightspeed POS Inc.since1 November 2019.	Lightspeed POS Inc.	Canada	43.3	100%
13	21 October 2019	Frontierpay Limited	United Kingdom	Frontierpay, which was founded in 2009, delivers cost effective and reliable payroll payments across 180 countries.	Ebury Partners UK Ltd	United Kingdom	-	100%
14	22 October 2019	SessionM, Inc.	United States	SessionM, Inc. develops cloud-based Software-as-a-Service (SaaS) for customer engagement and loyalty. SessionM is a marketing automation and loyalty platform that gathers customer behaviors across various channels, appends the data to each individual's profile instantaneously, and triggers personalized responses through a real-time rules engine. SessionM Insights is a reporting tool that provides an understanding of how brands' loyalty programs impact revenue and sales. It offers data management by organizing data from various channels, including point-of-sale, desktop, mobile, customer service, and social applications to build a database, analyze audience behaviors and engagements, and gather actionable data from online and offline sources. In addition, the company offers real time engagement by building rules-based workflows and triggering marketing and loyalty management by developing customized end-to-end loyalty marketing solutions for tiering, assigning points, rewards and offers. Its cloud-based solutions integrate loyalty marketing technology with marketing automation and profile management capabilities to drive personalized consumer relationships through the mobile device and across channels. The company's platform couples understanding of customer behavior with an ability to respond to that behavior. SessionM, Inc. was incorporated in 2010 and is based in Boston, with offices in New York; Chicago, Pittsburgh, London; and Amsterdam. Since 29 October 2019, SessionM, Inc. has operated as a subsidiary of Mastercard Inc.	Mastercard Incorporated	United States	215.0	100%

	Date announced	Target company	Country	Target description	Buyer(s)	Country	Enterprise value (US\$m)	Stake (%)
15	23 October 2019	TransferWise Ltd.	United Kingdom	TransferWise Ltd. provides international money transfer services. The company enables users to send money and businesses to make payments. It also provides an application that enables users to track their transfers on the go, or make new ones. TransferWise Ltd. was formerly known as Exchange Solutions Ltd. and changed its name to TransferWise Ltd. in September 2012. The company was founded in 2010 and is based in London, with additional offices in Tallinn, Estonia and New York.	Merian Global Investors (UK) Limited; Merian Chrysalis Investment Co. Ltd	(Invalid Identifier)	-	-
16	23 October 2019	TUTUKA SOFTWARE PROPRIETARY LIMITED	South Africa	TUTUKA SOFTWARE PROPRIETARY LIMITED offers third-party payment processing services. This includes prepaid processing, companion processing, and digital payments services through its software and application programming interface (API). Its software is used to issue closed loop prepaid cards, loyalty cards, open loop prepaid cards, payroll cards and travel cards. It offers software and systems for shopping centers, retailers, corporate, and state agencies to issue, redeem, track, and control vouchers issued on paper, card, e mail or SMS, or used by clients for gifts, loyalty cards, pay outs, incentives or as prepaid cards. The company was founded in 1998 and is based in Rivonia, South Africa. Since 15 October 2015, TUTUKA SOFTWARE PROPRIETARY LIMITED has operated as a subsidiary of Paycorp Group (Pty) Ltd.	-	÷	-	-
17	23 October 2019	Pungle Canada Inc.	Canada	Pungle Canada Inc. develops a payments-as-a- service platform for money transfer. The company was founded in 2017 and is based in Toronto, Ontario. As of 23 October 2019, Pungle Canada Inc.has operated as a subsidiary of Berkeley Payment Solutions Inc.	Berkeley Payment Solutions Inc.	Canada	-	100%
18	25 October 2019	Electronic Commerce Philippines Inc.	Philippines	Electronic Commerce Philippines Inc. operates as an electronic payment service provider. The company was founded in 2001 and is headquartered in Quezon City, the Philippines. As of 25 October 2019, Electronic Commerce Philippines Inc.has operated as a subsidiary of Globe Telecom, Inc.	Globe Telecom, Inc.	Philippines	39.0	77%

	Date announced	Target company	Country	Target description	Buyer(s)	Country	Enterprise value (US\$m)	Stake (%)
19	25 October 2019	BluePay Canada ULC	Canada	BluePay Canada ULC provides B2B payment processing systems and solutions for suppliers and vendors. It offers DataTokenization, a tokenization solution that protects users' payment card data by replacing personal account numbers with substitute values called tokens; InterchangeManagement that controls costs by optimizing payment acceptance; and PaymentIntegration that integrates with existing websites, ERPs and CRMs, e-commerce applications, shopping carts, call center software, and back office systems. It also provides UserPaySolutions, a payment model that shifts the cost of credit card usage to the cardholder; and WhiteLabelSolutions, a white label payment processing solution. BluePay Canada ULC was formerly known as Caledon Computer Systems Inc. and changed its name to BluePay Canada ULC in October 2014. As a result of the acquisition, the name was changed. The company was founded in 1986 and is based in Oakville, Canada. As of 25 October 2019, BluePay Canada ULC has operated as a subsidiary of First Financial Merchant Services, LLC.	First Financial Merchant Services, LLC	United States	-	100%
20	25 October 2019	Payroc LLC	United States	Payroc LLC, doing business as iTransact, provides payment processing solutions. The company was founded in 2003 and is based in Tinley Park, Illinois. Payroc LLC operates as a subsidiary of Fifth Third Bank.	First Financial Merchant Services, LLC	United States	-	100%
21	29 October 2019	alldebit Pte Ltd	Singapore	alldebit Pte Ltd offers online and in-store payment solutions. The company offers AsianWallets, a electronic wallet cross-border payment processing network and DEBIA, a customized online and in-store payment solution. alldebit Pte Ltd was founded in 2011 and is headquartered in Singapore.	Oriental Payment Group Holdings Limited	Thailand	0.9	17%
22	30 October 2019	CR7 Services Limited	United Kingdom	CR7 Services Limited provides card payment processing services. The company was incorporated in 2012 and is based in West Malling, UK. Since 30 October 2019, CR7 Services Limited has operated as a subsidiary of DNA Payments Limited.	DNA Payments Limited	United Kingdom	-	100%
23	04 November 2019	Thames Card Technology Limited	United Kingdom	Thames Card Technology Limited manufactures, personalizes, and fulfils plastic cards for customers in the UK and internationally. It offers financial cards, including chip, contactless, and smart cards; retail cards, such as gift, loyalty, and packaging and distributing cards; and commercial cards, including e top-up, health, membership, transport, ID, access, promotional, and packaging and fulfilment cards. Thames Card Technology Limited was founded in 1994 and is based in Rayleigh, UK. Since 4 November 2019, Thames Card Technology Limited has operated as a subsidiary of Paragon ID SA.	Paragon ID SA	France	-	100%

	Date announced	Target company	Country	Target description	Buyer(s)	Country	Enterprise value (US\$m)	Stake (%)
24	05 November 2019	AllScore Payment service co.,LTD	China	AllScore Payment service co.,LTD provides internet payments and cross-border payment services, and issues and accepts prepaid cards. It offers online banking payments, scan code payments, collection and payment services, and electronic wallet payments. The company was incorporated in 2007 and is based in Beijing, China, with additional offices in Shanghai, Shenzhen, Guangzhou, Xiamen, and Xining.	Wirecard AG	Germany	71.9	80%
25	08 November 2019	Digital Money Myanmar Limited	Myanmar	Digital Money Myanmar Limited develops, owns, and operates mobile payment wallets. The company, through its mobile payment platform, allow users to send and receive money to anyone in nearest authorized Wave Shops and Wave Accounts. Digital Money Myanmar Limited was founded in 2015 and is based in Yangon, Myanmar. Since 1 March 2019, Digital Money Myanmar Limited has operated as a subsidiary of Telenor ASA.	Yoma Strategic Investments Ltd	Singapore	-	10%
26	11 November 2019	Prepaid Financial Services (Ireland) Limited	Ireland	Prepaid Financial Services (Ireland) Limited provides white label payments, digital banking capabilities, e-wallets, and payout/distribution programs. The company was founded in 2008 and is based in Navan, Ireland.	EML Payments Limited	Australia	360.3	100%
27	12 November 2019	Interswitch Limited	Nigeria	Interswitch Limited operates as an integrated digital payments and commerce company. It builds and manages payment infrastructure, as well as delivers payment products and transactional services throughout the African continent. The company provides rewards, easy payment with Verve, and payment platforms for individuals; and revenue collection, funds disbursement, retail payment, fraud management systems, and loyalty solutions for businesses. It also offers loyalty services, technology integration, advisory services, transaction processing, payment infrastructure, and electronic payment services. In addition, the company provides third-party processing services that include reporting and analysis across various channels, such as ATMs, POS terminals, mobile phones, etc.; and manages switching and transaction processing services for card brands, such as MasterCard, Verve, and Visa. It serves financial, government, oil and gas, transportation, health, aviation, telecoms, education, and retail industries. The company was founded in 2001 and is based in Lagos, Nigeria.	Visa Inc.	United States	_	-
28	12 November 2019	Pacific Merchant Processing, Inc.	United States	Pacific Merchant Processing, Inc. offers personalized payment processing solutions in the cannabis and auxiliary markets. The company was founded in 2017 and is based in Bellevue, Washington.	GRN Holding Corporation	United States	-	100%

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29	18 November 2019	Sage Pay Business of The Sage Group plc	United Kingdom	Sage Pay Business of The Sage Group plc comprises payment gateway service business. The business is located in the UK.	Elavon Inc.	United States	300.9	100%
30	19 November 2019	N Dimension Limited	Hong Kong, China	N Dimension Limited operates as a payment as a service provider. Its product includes WeChat, an online cross-border payment application.  N-Dimension Limited was incorporated in 2016 and is based in Mong Kok, Hong Kong. Since 17 September 2017, N-Dimension Limited has operated as a subsidiary of RM Group Holdings Limited.	-	-	38.5	70%
31	19 November 2019	Casco Financial Services Limited (nka:Equals Connect Limited)	United Kingdom	Equals Connect Limited offers foreign exchange and international payment services to businesses and individuals. The company was Equals Connect Limited, formerly known as Casco Financial Services Limited, and changed its name to Equals Connect Limited on 20 November 2019. Equals Connect Limited was founded in 2010 and is headquartered in London. Since 19 November 2019, Equals Connect Limited has operated as a subsidiary of Equals Group plc.	Equals Group plc	United Kingdom	-	100%
32	20 November 2019	Honey Science Corporation	United States	Honey Science Corporation provides Honey, an online service that automatically finds coupon codes for the site the users' shop at and applies them to their order when they check out – saving money and coupon searching time. It also offers HoneyGold, a rewards program that allows users to earn cash back when they are shopping online at various stores. The company was incorporated in 2012 and is based in Los Angeles. As of 3 January 2020, Honey Science Corporation has operated as a subsidiary of PayPal Holdings, Inc.	PayPal Holdings, Inc.	United States	4000.0	100%
33	20 November 2019	Nederlandsche Betaal & Wissel- maatschappij NV	Netherlands	Nederlandsche Betaal & Wissel- maatschappij NV provides foreign currency exchange services, focusing on serving medium-sized and small companies with international payment or currency conversion requirements. Its services include paying international suppliers in foreign currency, converting foreign revenues into local currency, or locking in an exchange rate for a payment to be made or received in the future. The company is based in Amsterdam. As of November 20, 2019, Nederlandsche Betaal & Wisselmaatschappij NV has operated as a subsidiary of iBanFirst.	iBanFirst	Belgium	-	100%

	Date announced	Target company	Country	Target description	Buyer(s)	Country	Enterprise value (US\$m)	Stake (%)
34	25 November 2019	Posera Ltd.	Canada	Posera Ltd., a hospitality technology company, manages merchant transactions with consumers and facilitates payments. The company provides products and services to the hospitality industry for POS, kitchen management, and payments. Its products include Maitre'D POS and corporate solutions, a customizable restaurant POS system that offers hardware integration, merchant staff training, system installation, and post-sale software, and hardware customer support services; SecureTablePay, an EMV compliant payat-the-table application; and KDS, a kitchen display system. The company offers its products directly to end users, as well as through resellers worldwide. The company was formerly known as Posera-HDX Ltd. and changed its name to Posera Ltd. in January 2016. Posera Ltd. was founded in 2001 and is headquartered in London, Canada.	PayFacto Inc.	Canada	11.0	100%
35	27 November 2019	TransferWise Ltd.	United Kingdom	TransferWise Ltd. provides international money transfer services. The company enables users to send money and businesses to make payments. It also provides an application that enables users to track their transfers on the go, or make new ones. TransferWise Ltd. was formerly known as Exchange Solutions Ltd. and changed its name to TransferWise Ltd. in September 2012. The company was founded in 2010 and is based in London, with additional offices in Tallinn, Estonia and New York.	Merian Global Investors (UK) Limited; Merian Chrysalis Investment Co. Ltd	(Invalid Identifier)	-	-
36	28 November 2019	PT. Visionet Internasional	Indonesia	PT. Visionet Internasional designs and develops application software for the payment solutions. The company offers OVO, an application that allows users and businesses to make their payments, and collect payments from their clients. Its OVO application helps to give notification about special offers; make payments in various processes; e-wallets; and give payment log for purchase expenses, as well as provides security for payments. PT. Visionet Internasional is based in Jakarta, Indonesia. PT. Visionet Internasional is a prior subsidiary of Lippo Limited.	-	-	-	70%
37	03 December 2019	Paynova AB	Sweden	Paynova AB provides digital payment solutions for merchants in Sweden. It provides credit infrastructures, including invoicing, installments, and processing of card and direct bank payments. The company was founded in 2000 and is based in Stockholm. Paynova AB is a subsidiary of Råsunda Förvaltning Aktiebolag.	Atlantis Vest AS (nka:Rieberg & Soen AS)	Norway	-	7%
38	10 December 2019	optile GmbH	Germany	optile GmbH operates an open payment orchestration platform. The company provides connectivity, scalability, payments, integration, backend, orchestration, and analytical solutions. optile GmbH was founded in 2010 and is based in Munich.	Payoneer Inc.	United States	-	100%

	Date announced	Target company	Country	Target description	Buyer(s)	Country	Enterprise value (US\$m)	Stake (%)
39	11 December 2019	Forexfix GmbH	Germany	Forexfix GmbH provides a platform to transfer money internationally and foreign currency hedging for small and medium businesses. The company was founded in 2017 and is based in Berlin. Since 11 December 2019, Forexfix GmbH has operated as a subsidiary of iBanFirst.	iBanFirst	Belgium	-	100%
40	13 December 2019	VersaPay Corporation	Canada	VersaPay Corporation, a financial technology company, provides cloud-based accounts receivable automation software and integrated payment solutions. Its flagship product includes ARC, a cloud-based software solution that integrates with companies' accounting or ERP systems to deliver electronic invoice presentment and payment, cash application, collections management, collaboration, and accounts receivable insights. The company also develops value-added payment technologies, such as PayPort, a cloud-based credit card and electronic funds transfer service primarily for smaller businesses and individuals. It serves clients in transportation/logistics, mass media, commercial real estate, manufacturing, business services, and distribution industries directly, as well as through reseller channel partnerships in the US and Canada. VersaPay Corporation was founded in 2006 and is headquartered in Toronto.	1233518 B.C. Ltd.	Canada	100.3	100%
41	18 December 2019	Allat Corporation	South Korea	Allat Corporation operates in the electronic payment gateway market in South Korea. The company was founded in 2000 and is headquartered in Seongnam-si, South Korea. Since 30 September 2016, Allat Corporation has operated as a subsidiary of Kginicis Co.,Ltd.	KG Mobilians Co., Ltd	South Korea	429.0	100%
42	19 December 2019	E-Monkey Limited	Vietnam	E-Monkey Limited operates eMonkey, an e-wallet that provides payment services. The company is based in Vietnam.	Ant Financial Services Group	China	-	-
43	19 December 2019	Shape Security, Inc.	United States	Shape Security, Inc. develops and provides cyber security solutions to defend web and mobile applications from malicious automated cyberattacks. The company offers ShapeShifter Elements (SSE), real-time enforcement of security countermeasures to protect web and mobile applications; and Shape Protection Manager (SPM), cloud-based management of the ShapeShifter service. It caters to retail, financial, travel, healthcare, and government sectors. Shape Security, Inc. was founded in 2011 and is headquartered in Santa Clara, California with additional offices in Sydney, Australia and London.	F5 Networks, Inc.	United States	-	100%
44	20 December 2019	Crosscard S.A.	Luxembourg	Crosscard S.A. provides international money transfers and payments solutions utilizing both virtual and physical card accounts and domestic bank accounts. It issues e-money accounts under the brand names VIABUY for consumer, Crosscard and Fleetmoney both for corporate. The company was founded in 2018 and is based in Luxembourg.	HPE Growth Capital	Netherlands	-	100%

	Date announced	Target company	Country	Country Target description Buyer(s) Cou		Country	Enterprise value (US\$m)	Stake (%)
45	23 December 2019	Zynstra Limited	United Kingdom	Zynstra Ltd. develops virtualization and cloud management software for small and mid-sized businesses. It offers software solutions for retail stores, such as Virtualized Store, which automates back and front office store operations; Virtualized POS, which virtualizes existing POS application onto a centrally-managed store server; Virtualized Self-Checkout, which automates self-checkout operations, and more. It provides SMB IT for IT organizations; Education IT for small and large schools; Enterprise Branch IT for multi-site and remote offices and branches; and Zynstra Cloud Management Platform, a multitier cloud management platform that delivers IT management services. It also offers enterprise-grade hybrid IT-as-a-Service for SMBs, branch offices, education, retail, and industries. Further, the company provides Microsoft Office 365 integration, resilient active directory with single sign on, RDX removable storage, cloud backup and disaster recovery, and support services. Zynstra Ltd. has strategic alliances with Microsoft and HP. The company was incorporated in 2011 and is headquartered in Bath, UK, with a sales office in Seattle Since 23 December 2019, Zynstra Ltd. has operated as a subsidiary of NCR Corporation.	NCR Corporation	United States	129.2	100%

	Date announced	Target	Country	Round	Volume (US\$m)	Funding (US\$m)	Investor(s)	Segment	Description
1	01 October 2019	CashDash UK Limited (RAPYD)	UK	С	100.00	150.00	Oak HC/FT	Payment acceptance devices + Software	Offers a network platform that provides modular payment services.
2	03 October 2019	Kodypay	UK	Seed	0.05	0.20		Payment acceptance devices + Software	Provides mobile application-based EPOS solutions.
3	07 October 2019	Razorpay	India	Venture	18.00	124.70	Razorpay Inc.	Processing	Allows businesses to accept, process and disburse payments with its product suite.
4	08 October 2019	Global Payout, Inc. (OTCPK:GOHE)	United States	N/D	3.00	4.18		Alternative payment systems	Provides e-wallet and e-banking financial solutions for the marijuana industry.
5	08 October 2019	ACINQ	France	А	8.00	9.70	Idinvest Partners	Alternative payment systems	Provides payment wallet and eclair software suite for bitcoin.
6	09 October 2019	USA Technologies, Inc.	United States	N/D	49.95	142.48		Processing	Provides payment processing, telemetry and consumer engagement services.
7	09 October 2019	MatiPay	Italy	A	7.68	7.68	Neva Finventures	Alternative payment systems	Operates as a digital payment wallet that allows users to pay at vending machines using smartphone application.
8	10 October 2019	XTransfer Limited	China	В	15.00	32.00	eWTP Technology & Innovation Fund	Money transfer	Provides cross border money transfer and payment services to SMEs.
9	11 October 2019	Monisnap	France	А	2.76	2.76		Money transfer	Operates as a digital instant money transfer platform and mobile application, offering instant service to send money abroad to family, friends, and business partners.
10	11 October 2019	Enterpay	Finland	Venture	1.10	1.10	Volksbanken Raiffeisenbanken	Payment acceptance devices + Software	Provides an online payment invoicing service to all e-commerce business customers.
11	14 October 2019	True Balance	India	С	23.00	61.60	NH Investment & Securities	Alternative payment systems	Provides a digital wallet that enables users to access utility bill payment and other financial products.
12	15 October 2019	MatchMove Pay Pte. Ltd.	Singapore	Venture	5.03	5.03		Payment acceptance devices + Software	Develops an e-wallet that lets customers shop online using prepaidbased cards.
13	15 October 2019	Jassby	United States	Debt		4.50		Money transfer	Designs a mobile payment system for families, children, and teens, so they can earn, request and send money.
14	16 October 2019	EBANX	Brazil	Venture		30.00	FTV Capital	Processing	Offers end-to-end payment solutions across an ecommerce transaction flow.



	Date announced	Target	Country	Round	Volume (US\$m)	Funding (US\$m)	Investor(s)	Segment	Description
15	17 October 2019	Lemon Way	France	N/D	27.62	39.22	Toscafund Asset Management	Payment acceptance devices + Software	Designs and develops banking software for mobile communication devices, and offers online payment services.
16	17 October 2019	GDP Inc.	Singapore	Seed	1.00	1.00		Money transfer	Provides cross-border financial transactions for individuals and businesses alike.
17	17 October 2019	Galileo Financial Technologies	United States	А	77.00	77.00	Accel	Processing	Provides a payment processing solutions platform, affording their customers with AI fraud detection.
18	22 October 2019	AZA Group (Bitpesa)	Kenya	Debt		15.00	Development Bank of Southern Africa (DBSA)	Money transfer	Provides a digital foreign exchange and payment platform for blockchain settlement, which lowers the cost and increases the speed of business payments.
19	24 October 2019	Software Group AD	Bulgaria	Venture	7.03	17.98		Payment acceptance devices + Software	Offers payment switch, card management and POS management services.
20	24 October 2019	Incode Technologies	United States	Seed	10.00	12.10		Security	Provides a wide range of services, including the ability to open accounts, authenticate identity, and make payments seamlessly across any channel.
21	25 October 2019	Coinplug, Inc.	South Korea	В	6.40	14.70	KB Investment	Alternative payment systems	Provides bitcoin wallet, exchange and payment processor services.
22	29 October 2019	PU Group Limited	United Kingdom	Venture	1.04	1.04	MobiMedia Solution S.A.	Money transfer	Provides online money transfer services.
23	29 October 2019	Paper.id	Indonesia	А			Modalku	Payment acceptance devices + Software	Provides a software that offers bill payment, accounting and e-invoicing services.
24	31 October 2019	Pollinate Networks	United Kingdom	А	77.27	77.27	The Royal Bank of Scotland	Acquiring	Provides cloud-based merchant acquiring platforms for banks that offers onboarding, portals and loyalty program services.
25	31 October 2019	ShareGroop SAS	France	Venture				Processing	Provides payment-processing services in France and within Europe on e-commerce websites.
26	01 November 2019	Mobetize Corp.	United States	N/D	0.50	3.22		Payment acceptance devices + Software	Provides P2P money transfer, mobile wallet, cross-border foreign exchange payments and airtime and data top-up service.
27	01 November 2019	POSaBIT Systems Corporation	United States	N/D	0.85	10.48		Payment acceptance devices + Software	Offers point of sales systems and blockchain-enabled payment processing services.
28	01 November 2019	Paidy	Japan	С	83.00	224.60	PayPal Ventures	Alternative payment systems	Provides a platform that allows consumers to buy online without a credit card or pre registration.



	Date announced	Target	Country	Round	Volume (US\$m)	Funding (US\$m)	Investor(s)	Segment	Description
29	01 November 2019	Paidy	Japan	Debt		224.60	Goldman Sachs	Alternative payment systems	Provides a platform that allows consumers to buy online without a credit card or pre registration.
30	04 November 2019	Deserve	United States	С	50.00	96.30	Goldman Sachs Principal Strategic Investments	Issuing	Offers credit card products for young people and a cloud-based credit card platform for businesses.
31	04 November 2019	Ebury	United Kingdom	N/D	452.65	572.10	Banco Santander	Money transfer	Provides financial services and technology to SME's, who can easily make and receive payments in foreign currencies.
32	05 November 2019	Riskified	Israel	E	165.00	228.70	General Atlantic	Security	Operates as a fraud prevention platform for online merchants, which provides an actionable approve or decline decision on every transaction.
33	08 November 2019	KRPartners Co.,Ltd	South Korea	N/D	0.01	0.89	-	Processing	Provides payment services under the name EXIMBAY, and offers payment gateway services.
34	08 November 2019	CreditStacks	United states	А	10.00	14.00	Strathmore Group	Issuing	This financial service company offers a credit card for relocating professionals.
35	08 November 2019	CreditStacks	United states	Debt		4.00	WebBank	Issuing	This financial service company offers a credit card for relocating professionals.
36	11 November 2019	M-DAQ Pte. Ltd.	Singapore	Venture	101.70	367.58	Samsung Venture Investment Corporation	Processing	Provides over-the-top (OTT) applications to facilitate cross-border solutions for payment gateways, etc. It also offers a cross-border payment solution for e-wallet operators to pay its merchants in other countries.
37	12 November 2019	Popwallet	United states	Seed	2.00	4.00	Stout Street Capital	Couponing / Loyalty	Offers coupons and deals publishing in mobile wallets.
38	13 November 2019	Palmpay	Nigeria	Seed	40.00	40.00	TRANSSION	Alternative payment systems	Operates a payment application that offers rewards.
39	13 November 2019	Spreedly	United states	N/D	75.00	81.10	Spectrum Equity	Processing	Offers cloud-based payment infrastructure that allows businesses to work with multiple payment gateways.
40	14 November 2019	Punchh	United states	С	40.00	68.10	Sapphire Ventures	Acquiring	Offers a platform that integrates with existing systems, helping clients to build customer loyalty.
41	14 November 2019	DadeSystems, LLP	United states	D	9.00	11.00	Napier Park Financial Partners	Processing	Develops payment processing software solutions. Its products include DadePay AR, DadePay mobile, DadePay ePayments.
42	14 November 2019	Cardlay	Denmark	В	9.91	18.80	Seed Capital	Issuing	Issues physical and virtual cards, and develops transaction data.
43	15 November 2019	LockTrust	United states	N/D	14.18	14.18	_	Processing	Offers electronic payments processing and funds remittance.
44	15 November 2019	Kredivo	Indonesia	С	NA	50.00	Mirae Asset Capital	Issuing	Offers online credit card with a payment method and installments.



	Date announced	Target	Country	Round	Volume (US\$m)	Funding (US\$m)	Investor(s)	Segment	Description
45	18 November 2019	Radpay	United states	Seed	1.20	1.20	Resiliency Ventures	Alternative payment systems	Offers Blockchain-enabled card payment processing and digital wallet services.
46	18 November 2019	OPay (Operapay)	Nigeria	В	120.00	170.00		Alternative payment systems	Offers a mobile payment service and consumer platform to send and receive money, pay bills, and order food and groceries.
47	18 November 2019	Cobre Fácil Online Ltda	Brazil	Venture	5.00	5.00	FEBA CAPITAL, LLC	Other	Offers an application that facilitates the process and management of receivables, payments and financial services; focuses on the offline market of providing services and retail to freelancers and SMEs.
48	18 November 2019	AdvicePay Inc.	United States	Venture	1.50	2.50		Processing	Develops a payment processing platform for financial advisors.
49	18 November 2019	On Track Innovations Ltd	Israel	N/D	2.50	2.50	Jerry L. Ivy	Payment acceptance devices + Software	Designs, manufactures and sells secure cashless payment solutions using contactless NFC technology.
50	18 November 2019	Tymit	United Kingdom	Venture	5.19	5.19	-	Issuing	Issues credit cards and provides services to cardholders.
51	19 November 2019	TRM Labs	United States	Seed	4,2	5.90	PayPal Ventures	Security	Monitors digital asset transactions to protect financial institutions from risks, such as fraud and money laundering.
52	19 November 2019	EasyRewardz	India	В	4.00	6.00	Flipkart	Couponing/ Loyalty	Provides a social collaborative rewards market-place.
53	21 November 2019	Netstars Co., Ltd	Japan	N/D			SCSK Corporation	Payment acceptance devices + Software	Develops and distributes point of sales terminals that accept smartphone-based quick response code and barcode payment methods.
54	21 November 2019	Enfuce Financial Services Oy	Finland	Venture	11.07	16.72		Alternative payment systems	Offers a cloud-based payment platform for business enterprises.
55	22 November 2019	NKD Holding (Cyclebit)	Sweden	N/D			NEM Ventures	Payment acceptance devices + Software	Offers Cycle POS, a device to accept crypto, cards, and cash; sells cryptocurrency in stores.
56	25 November 2019	MoneyGram International	United States	N/D	20.00	50.00	Ripple	Money transfer	Operates as a money transfer company to securely and quickly send or receive money.
57	25 November 2019	Paytm	India	G	1000.00	4400.00	T. Rowe Price	Alternative payment systems	Paytm operates a mobile and Internet-based wallet, allowing users to send money to any bank account from their Paytm Payment Bank Wallet.
58	25 November 2019	2C2P	Singapore	Е	52.00	70.00		Processing	Offers payment processing, payment gateway, and card issuing services.
59	25 November 2019	Uala	Argentina	С	150.00	194.00	Tencent Holdings	Issuing	Provides a prepaid card and develops a mobile application that links with a Mastercard for financial transactions.

	Date announced	Target	Country	Round	Volume (US\$m)	Funding (US\$m)	Investor(s)	Segment	Description
60	26 November 2019	buguroo	Spain	А	11.00	14.30	TenEleven Ventures	Security	Develops software for online fraud prevention.
61	28 November 2019	Imburse	Switzerland	Venture	1.70	3.80	SixThirty	Alternative payment systems	Offers global payment technology whether it is cash, credit cards, billing solutions, alternative payment methods, vouchers or others.
62	29 November 2019	4ward Serviços e Comércio de Equipamentos Ltda	Brazil	N/D			Verity Consultoria Em Tecnologia Ltda	Security	Offers a wide range of payment services including 3D Secure, risk analysis, payment solutions, and authorization processes.
63	30 November 2019	BANCOMAT S.p.A.	Italy	Venture	27.55	27.55		Money transfer	Offers funds transfer services.
64	03 December 2019	CardDash (Rapyd)	United Kingdom	С	20.00	170.00	Durable Capital Partners	Alternative payment systems	Operates as a cardless mobile payment network that provides multiple payment services, mobile wallet, card issuing,and others.
65	03 December 2019	NovoPayment Inc.	United States	Venture				Payment acceptance devices + Software	Develops and operates a cloud-based bank-grade platform that offers financial and transactional services. Its platform provides mass payout and cash-in services.
66	04 December 2019	MatchMove Pay	Singapore	С	150.00	155.09		Alternative payment systems	Develops an e-wallet that lets customers shop online using prepaidbased cards.
67	04 December 2019	PT Empat Kali	Indonesia	Venture	0.10	0.10	Achiko Ltd.	Alternative payment systems	Provides payment services and develops an application through which a user can create an account, shop for a product and choose EmpatKali as the payment method.
68	04 December 2019	Finexio	United States	Venture	2.50	7.50		Processing	Operates a B2B electronic payment network that helps in payment processing.
69	04 December 2019	My-iMali	South Africa	Venture	NA	1.71	Crossfin Technology Holdings	Payment acceptance devices + Software	Offers a mobile wallet solution and platform to accept payments on any mobile device instead of paying high monthly POS rentals and acquisition fees.
70	04 December 2019	Currensea	United Kingdom	N/D	1.22	1.22		Issuing	Provides an international debit card which allows travelers to get funds from their existing bank accounts, based on their needs, and use it in any country.
71	05 December 2019	Flink	Mexico	Seed				Alternative payment systems	Develops an application to send or receive money, and offers a Mastercard.
72	10 December 2019	Passport	United States	D	65.00	123.50		Alternative payment systems	Provides enterprise business applications and payments for parking and transportation.
73	11 December 2019	Flexpay	Canada	Seed	6.00	9.00	Impression Ventures	Processing	Provides transaction processing services and helps in recovering declined transactions.

	Date announced	Target	Country	Round	Volume (US\$m)	Funding (US\$m)	Investor(s)	Segment	Description
74	12 December 2019	Nuvei	Canada	N/D	270.00	330.00		Processing	Provides payment processing services and other payment technology solutions.
75	13 December 2019	Ipsidy	United States	N/D	0.48	21.97		Security	Provides multi-functional secure payment solutions for open and closed electronic payment transaction networks.
76	19 December 2019	Bluecode	Switzerland	Venture	13.35	26.11		Processing	Provides mobile payment solutions and develops an app for payment processing.
77	19 December 2019	Ripple Labs	United States	С	200.00	293.60	Tetragon Financial Group	Money transfer	Operates a global payments network to send money globally.
78	20 December 2019	ATX	Malaysia	Venture	0.05	0.05	ScaleUp Malaysia	Processing	Operates a proprietary system to process all transactions electronically.
79	24 December 2019	Appriza Pay LLC	United States	Venture	4.50			Processing	Operates an online transactional aggregation engine that provides downstream payment processing services.
80	26 December 2019	Hyperpay	Saudi Arabia	Venture			Mad'a Investment	Processing	Provides online payment service and payment processing options.

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