



Building a better
working world

A photograph of a woman in a white sweater using a payment terminal at a market stall. The background is a busy market with various goods and lights.

#payments

insights. opinions.

Tap. Touch. Speak. Grab and go. The way we make payments is changing faster than any other area of financial services. New technology and changing customer expectations are shattering the status quo and ushering in a growing number of new players that are challenging the traditional role of banks.

Seven themes impacting the future of payments

Winners in the future payments ecosystem will be those that make the right decisions today. Understanding these seven key themes reshaping payments will help leaders make those decisions and determine how best to differentiate themselves in this fast-changing landscape.

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Editorial



This newsletter comes to you as many of us prepare to meet again at Sibos - the world's premier financial services event, held this year in London, 23 to 26 September 2019. EY is a proud sponsor of Sibos, and commends their efforts to bring together the global financial services and payments community.

This year's theme is an exciting one that touches on many of the issues we are covering in this #payments issue: "Thriving in a hyperconnected world" acknowledges the opportunities and challenges of increased connectivity within financial services and other industries, governments and consumers, as technologies advance and customers demand seamless, intuitive experiences in all aspects of their lives.

The push to evolve **frictionless, real-time payments** in our hyperconnected world is explored in articles by Jennifer Lucas and Olivier Perrin, while the growing opportunities to connect across industries to offer consumers greater value is discussed in an article by Christian Löw and Jakob Schniewind about the next generation of **Mobile point-of-sale (mPOS)** payments. Our regular round up of **Venture Capital Activity** and **Mergers & Acquisitions** highlights the continued appeal of the payments sector to investors, with many deals in Q2 focused on payments devices and alternative payments methods designed to improve the connectivity and inclusiveness of payments.

Payments are a cornerstone of our economy. It's critical that we come together to improve the inclusiveness, efficiency and safety of payments to build a better working world. I look forward to more discussions at Sibos about how we can do this through greater connections across the sector and with other stakeholders. Please come and say hello if you are attending and, as always, we welcome your feedback and suggestions for future issues of #payments.

Jan Bellens
EY Global Banking & Capital Markets Sector Leader

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Seven themes impacting the future of payments

Understanding the themes transforming payments can help banks make strategic investment decisions and emerge as winners.

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Seven themes impacting the future of payments

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Theme 1: Payments are becoming invisible

Customers now expect a seamless shopping experience and will be frustrated by payments solutions that require enrollment, entry of payment data, and/or additional effort of any kind. This demand for a frictionless payment experience is defining the emergence of the next-generation of these experiences where lines between shopping, purchasing, and paying continue to blur with the payments system operating in the background.

Invisible payments make life easier for consumers, but more complex for payments providers. Increased security measures, including tokenization and strong authentication, are needed when payments products are embedded in devices and vehicles. And, delivering a truly seamless experience will require the digital integration and interoperability of networks and terminals at each touchpoint in the payments lifecycle.

When payments are invisible, maintaining a strong brand is more difficult for banks. Remaining competitive requires mirroring the innovation of rival FinTechs through market-differentiating partnerships. For example, payments players are focusing more on the customer experience, ease of doing commerce, and removing friction by embedding the payment in the transaction, similar to Amazon Go's "Just Walk Out" shopping where customers can skip the checkout line. We also see partnerships between payment networks and other companies to embed payments using Internet of



Things (IoT). For example, MasterCard, IBM and General Motors are creating in-car payments systems using vehicle consoles and voice-enabled assistants to provide frictionless payments.

These blurred lines, digital wallets, payments in the background and the ecosystem of involved parties will give rise to more Starbucks types of omnichannel models which combine a mobile app, a loyalty program, gamification, and a frictionless payment method. More fused loyalty and payments capabilities will enhance the customer experience.

Theme 2: Artificial intelligence and machine learning will play a larger role in the end-to-end payments lifecycle

According to the IDC, by the end of 2019, 40% of digital transformation and the majority of IoT initiatives will be supported by artificial intelligence (AI).¹ The banking sector will invest US\$5.6b on AI this year – the second highest industry spend after retail, with payments a key target of this spend.

¹ IDC FutureScape: Worldwide Digital Transformation 2018 Predictions
<https://www.idc.com/getdoc.jsp?containerId=US43154617>

The use of AI and machine learning (ML) is set to move beyond helping combat fraud and improve operations to providing granular insights across all areas of the payments value chain – informing better decision making, increasing efficiency, improving security, and boosting innovation.

Five key areas will see a significant impact from AI:

- 1. Business decision making and marketing:** Data analytics, AI and ML can help merchants find, target and retain their most profitable customers and tailor better products that meet their needs.
- 2. Customer experience:** As technology improves, and security and privacy provisions are enhanced, voice payments and conversation commerce are set to become as widely used as mobile payments. Customers will even use voice commands to manage accounts as the technology becomes a trusted, normalized element of the payments landscape.
- 3. Rewards and loyalty:** AI will allow merchants to offer dynamic, personalized and portable rewards based on customer preferences and transaction history. Data sharing between payments providers and merchants will allow customers to pay and redeem rewards at point of sale (POS) to further enhance the potential of loyalty-driven revenue.
- 4. Process analytics:** Data and analytics will reduce both the cost and time needed to settle payment disputes, process chargebacks and settlements and onboard customers. Banks can improve treasury services by using AI and ML to offer intelligent receivables and reconciliation, making it easier to apply incoming payments to outstanding invoices, and by providing better cash forecasting services.
- 5. Information security:** The technology-driven transformation of payments to fast, real-time and invisible is increasing the need to leverage AI and ML to authenticate payments, detect fraud and protect customers and merchants from cyber breaches.

Payments providers with superior security measures can gain a competitive advantage, winning the confidence of customers that increasingly demand to know how their data is protected.

Theme 3: Business customers will expect more from their banking solution providers

The role of corporate treasurers is expanding – and they expect their banks to change too. Moving away from transaction-based pricing, banks will provide value-added services to differentiate themselves in the market. Treasury services providers will need to

adopt and master new digital tools and capabilities if they are to offer corporates the differentiated services they demand. This includes faster on-boarding processes enabled by AI and technological solutions and access to accurate, real-time information that helps track payments, develop dynamic cash forecasting, improve reporting, and drive better decision making.

Integrating with clients' core systems, such as Enterprise Resource Planning (ERP) and Treasury Management Systems (TMS), will be critical to a banks' ability to do this. We expect more larger treasury service providers to seek partnerships with ERP providers to further improve connectivity.



Theme 4: Open banking will bring friends and foes together

The sharing of data enabled by open banking allows organizations to work together to improve processes across the payments chain – from Know Your Customer (KYC) to fraud, rewards, and marketing. Instead of seeing open banking as a threat to market share, leading banks will seize the opportunity to boost their collaboration with FinTechs and other financial institutions to bring customers the more innovative products they demand.

For example, Bank of America has partnered with PayPal to allow customers to easily link their credit and debit cards to their PayPal account. This collaboration allows the Bank to earn fees from card transactions and expands PayPal's network and transactional volume. Other banks are forming payments networks, such as Zelle, that allow them to amplify their digital innovation efforts, including in peer-to-peer (P2P) payments, instead of doing it alone. In 2018, Zelle processed US\$119b in payments, compared to US\$75b in 2017.² After multiple P2P efforts by banks, the success of Zelle illustrates the power of the network.

Theme 5: Digital identities will create a trusted network

More digital payment channels will make it harder to authenticate identities and increase payments fraud and cybersecurity threats. But digital innovation also offers new ways to mitigate risk. Biometric identification – a photo of a customer's face, a recording of their voice or a scan of their fingerprint – can make authentication more secure and payments more convenient for customers. The use of biometrics, in combination with other verified data, can help build digital identity (ID) solutions that help payments providers more efficiently and safely verify customers' identity.



Collaborative, cross-sector investment in developing these solutions will be critical to both achieve standardization and maximize the potential of digital IDs. Implemented well, these IDs could give rise to a "trust network" where customers control their own data in a stronger ecosystem that is harder to break into. Payments providers that invest in digital IDs, either alone or as part of a network, will reap benefits, including cost savings, revenue growth opportunities, more confidence around compliance and improved customer perception.

Theme 6: All payments will be made in real-time

Globally, there are currently 40 active real-time payment (RTP) schemes, up from 25 in 2017, with more than a dozen set to go live over the next year.³ On-demand payments are fast becoming the new normal, driven by customer expectations, regulatory mandates and digital innovation. Banks are also investing more in the infrastructure upgrades that enable RTP – and they are seeing the benefits in the increased volume and value of payments.

As more use cases emerge for RTP – including wages for gig workers, just-in-time supplier payments and POS – banks will need to keep up with demand, or risk losing out to more nimble FinTechs. RTP at POS could be the real game changer. However, without deep integration and partnerships between providers and merchants, we may not see mass adoption in the near term.

Theme 7: Interoperability of payments across platforms and borders will emerge

The acceleration in payments innovation has been challenged by the difficulty in integrating new payments systems with legacy systems that operate on closed, siloed networks. Maintaining payments industry growth will require a shift toward standardization that enables interoperability across various payment mechanisms, clearing and settlement systems, and liquidity providers. The move to adopt standardized payment format (ISO20022) is promising, but we are unlikely to see the emergence of a common global clearer or a non-card network for some time. Instead, expect

² Zelle, "Press Releases", 2018
<https://www.zellepay.com/press-releases>

³ FIS, "Flavors of Fast", 2018
<https://www.fisglobal.com/flavors-of-fast>

to see pockets of regional innovation emerge as players explore different P2P schemes and networks.

As e-commerce continues to grow, achieving cross-border interoperability will be a focus area of investment for both incumbents and emerging providers. Increasing demand from customers to be able to use one payments platform to pay beneficiaries across multiple platforms will be the main driver of growth in cross-border solutions. Providers, such as FinTechs, that offer frictionless global payments solutions will thrive. These pockets of innovation that address global commerce and small business needs will have a direct impact on domestic P2P solutions by pushing forward the need for interoperability.

The winners circle – how leaders will emerge in a changing market

With the payments sector changing at unprecedented speed, making agile decisions on how to adapt can be challenging. Understanding these seven

themes reshaping payments can help companies determine how best to focus efforts in the years ahead. Winners in the future payments world will be those organizations that:

- ▶ **Integrate with a relentless focus on customer experience:** Customers want seamless transactional experiences across multiple channels where payments are invisible, but still secure. Winners will do more than facilitate transactions to offer smart, intuitive digital tools that help customers manage finances and resolve payment disputes.
- ▶ **Differentiate with real-time data, AI and ML:** Using real-time data, AI and ML to combine transaction and customer data from multiple sources can uncover insights that help create new products, improve customer experience and develop the next generation of highly-personalized loyalty programs. Winners will use real-time data, AI and ML to strengthen authentication, fraud detection and prevention, going beyond rules-based capabilities and into predictive information security practices.

- ▶ **Strategically build and partner in open platforms:** The future is collaborative. Winners will join forces with other players to leverage information sharing via open banking and consider payments as platform-as-a-service. The next generation of seamlessly integrated payment rails, bank networks and alternative forms of payments will be created by pooling best-in-class services from various providers in a single ecosystem.
- ▶ **Invest in infrastructure and security:** Modernizing payments platforms and investing in cloud-based infrastructure will allow providers to accelerate innovation, including in RTP, while boosting security. Winners will invest in next-level authentication and authorization, including tokenization, multi-factor authentication, behavioral biometrics, computer vision technology and password-less authentication techniques.

For more on the future of payments, read our related white paper, *Fast forward to the future of payments*.



Jennifer Lucas



Sean Viergutz

Why real-time payments are the new normal – and how payments providers can adapt

For today's consumers, used to having everything now and on-demand, real-time payments (RTP) are the new normal. The data and speed benefits of RTP are good news for payments providers too, if they invest now in modernizing, controls and innovation.

Key drivers of RTP

- ▶ Customer expectations and experience
- ▶ Competitive pressure from FinTech service providers
- ▶ Mandates and regulatory direction
- ▶ Desire to reduce or replace cash and checks
- ▶ Globalization and digitization of commerce

RTP schemes are spreading across the globe

RTP schemes are expanding fast. This is being driven by customer expectations and experience; competitive pressure from FinTech service providers; mandates

and regulatory direction; desire to reduce, and ultimately, replace cash and checks; and globalization and digitization of commerce.

The rapid growth of these schemes lies in the appeal of key features:

Availability – Funds are available to recipients immediately, addressing the cash flow needs of both consumers and corporations.

24x7 – Customers can send and receive money 24 hours a day, seven days a week, representing a big shift away from traditional daily cutoff times and business-day-only processing.

Credit push – Funds are moved from the sender to the receiver, instead of the receiver debiting the sender's account, as is the norm with many existing payment schemes. Credit push gives senders more control and transparency.

"Good" funds – In many schemes, once funds are sent, authorized and certified, they cannot be reversed - the receiver has certainty that the funds received can be used immediately.

Data and notifications – Modern payments systems deliver easy to access, information-rich transactional details. Most RTP systems provide transparency about the payment to both the sender and receiver, notifying each participant that a payment was sent and received.

Request for payment – Debits are generally not supported in RTP. Instead, an invoice in the form of request is submitted and responded to with payment. This provides the ability to address additional commerce use cases, such as purchase orders, and enable straight-through processing of receivables for invoicing.

Settlement – Different schemes take different approaches to settlements between financial institutions. But whether schemes employ real-time gross settlement (RTGS) or delayed settlement, settlement times do not impact the availability of funds to the end receiver.

International standard messaging – With long-term interoperability in mind, systems are being built on common standards, ISO 20022.

Overhauling systems to take advantage of RTP data

Most discussions around the key advantages of RTP center on its speed, but this is shortsighted.

While the immediate availability of funds is of obvious benefit to the cash flow of both consumers and corporates, it's the information that the RTP architecture provides that offers huge innovation opportunities for the payments industry.

These opportunities are driving huge change across financial institutions, corporation treasury departments and payment services providers that are all retooling infrastructure, processes, products and channels to securely support the "new normal."

We expect to see a proliferation of products and services in the consumer and commercial landscape – both domestically and internationally – that will harness the value of both the speed and the data that comes with RTP.

Expanding potential for RTP use cases

RTP use cases began in the consumer space with Person-to-Person (P2P) applications serving as a replacement for

cash or check payments among friends and family. These services took off fast, fueling the volume of RTP transactions and raising expectations among both consumers and commercial customers for these types of payments. Customers that have grown accustomed to immediate retail experiences began to ask questions such as, "If I can order and receive a toothbrush within hours, why is it that money, which is inherently digital, is delivered at a slower pace?" Domestic schemes such as Venmo and Zelle in the US, or Swish in Sweden report growing numbers of transactions and users each year.

The success of real-time P2P payments is now influencing the commercial space with both Business-to-Consumer (B2C) and Business-to-Business (B2B) use cases proliferating:

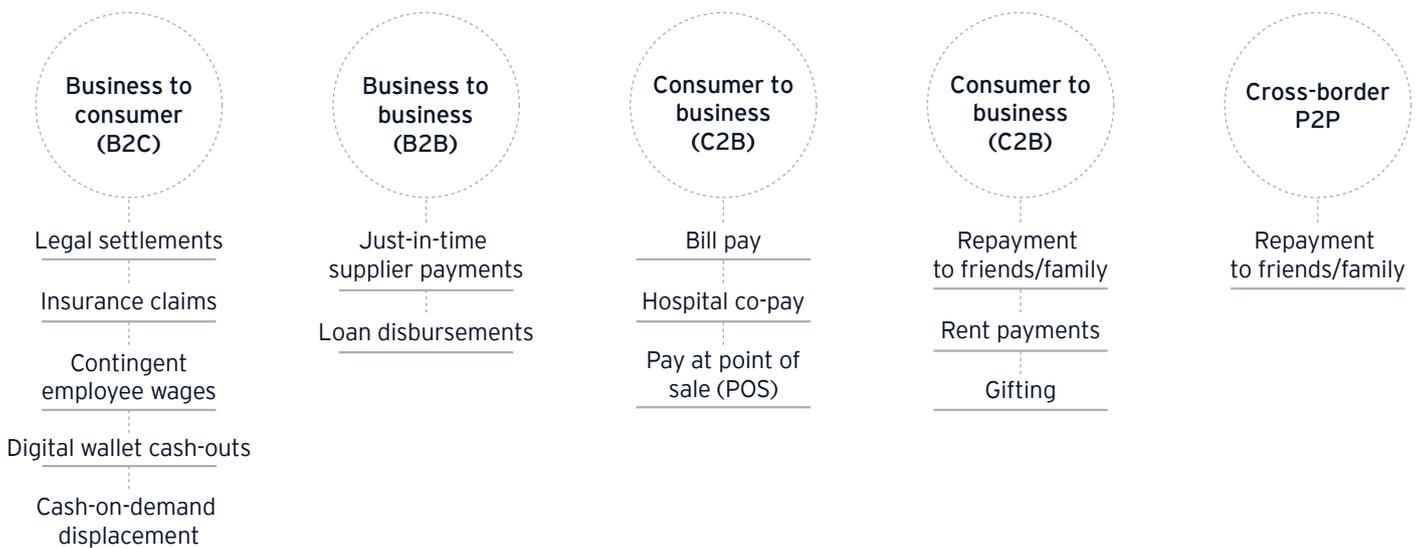
B2C: Real-time B2C disbursements innovations are expanding, supporting many changes in the platform economy, and becoming a tool in aiding cash flow for merchants and consumers. Insurance companies, FinTechs and loan providers are embracing real-time disbursements as a way to differentiate in the marketplace and grow their businesses.

RTP is also supporting the gig economy by enabling "payroll by the gig" vs. "paycheck

to paycheck" payment cycles. Whether it's a ride-share service attracting drivers by being able to pay them by the trip, or a technology firm's ability to attract specialized talent and pay them for hours worked, the request for payment and speed of payment provides the scale to power the changing working environment.

B2B: Cash flow, forecasting and cash management needs are the primary drivers behind adoption of RTP schemes in B2B, where both buyers and suppliers can benefit from enhanced data and speed. Buyers can take advantage of supplier terms, making payments "just in time" to maximize savings. Suppliers benefit from immediate funds availability, days sales outstanding (DSO) improvement and efficiencies associated with the straight-through application of receivables though data-rich payment remittance information.

Cross border: Efforts are underway to address real-time cross border needs, particularly for P2P use cases, but many of these are "closed loop" – operating only within one country or with limited users. Connecting national schemes remains an opportunity, and we expect to see connectivity among schemes regionally (within a corridor) and internationally, particularly as regulators begin to weigh in.



How is the industry addressing the “new normal”?

RTP presents significant opportunities as well as challenges for all stakeholders in the payments process. Adapting requires three key steps:

- ▶ **Investing in modernization and digital:** The speed, data, responsiveness and dynamic nature of RTP requires a platform and processing environment that can support 24x7/365 payments, new messaging standards, issue timely notifications and provide transparent data to both internal controls and clients through digital channels. Financial institutions, payment service providers and corporations that are planning to make RTP a critical component of their product offering have made, or are making, strategic investments to replace, update and modernize their platforms, infrastructure and their client channels.
- ▶ **De-risking through authentication and controls:** The speed and irrevocability of RTP schemes creates a “digital cash” experience where payments are irrevocable or final and are immediately debited and credited to the sender and receiver. The ability for firms to confidentially authenticate senders is critical. Organizations are deploying a mix of overt controls (e.g., dollar limits or stepped-up authentication) and behind-the-scenes tools (e.g., transaction, channel and customer monitoring with data analytics) to improve their ability to deter fraud and losses. Reducing risk in an RTP world will require critical investment in data sourcing and analytics, biometric authentication, dynamic controls, alerts and notifications.
- ▶ **Innovation in products and partnerships:** Now more than ever, the payments industry is collaborating to deliver new experiences to clients, with RTP providing common ground for financial institutions, FinTechs, payment service providers and corporations to partner on innovation. Ecosystems are coming together to accelerate the pace of innovation. This is expected to



proliferate through M&A and deliberate partnerships with a focus on developing use cases that leverage the power of the available data (e.g., buyer/supplier payments, e-invoicing, notifications, alerts) and cash flow benefits.

Where is this headed?

With cash and check still dominant forms of payment in some countries and these RTP payment schemes relatively new, we are currently in the early stages of RTP growth globally.

But as these schemes expand, the “new normal” of real-time, always on, here and now, will have implications on our economies – providing cash flow benefits for every day consumers, small businesses and global companies. New behaviors, spending patterns, and possibly cultural changes will take place as funds and payment data become immediately available. As with any transformation, gaining capabilities required to realize its potential will demand significant strategy definition, readiness planning and preparation related to platforms, operations, risk and customer experience.

This “new normal” of RTP will set the standard for the future of payment services. And while there is uncertainty around exactly how this future will look, it’s clear that financial institutions must continue to invest in modern payments platforms and cloud-based infrastructure to increase the resiliency, security and scalability that will enable their agility to adapt. Upgrading existing offerings, operating models, processes, systems and embracing collaboration with other players in the ecosystem will be critical for success in the changing payments landscape.



Jennifer Lucas

How the mPOS business model expands beyond payments acceptance

Even a couple of years ago, asking stallholders at the local farmers market or Girl Scouts selling cookies to take payments by card was almost unheard of. This has changed in many countries around the world as mobile point-of-sale (mPOS) makes card acceptance solutions widely available to micro and small merchants that have been underserved by traditional payments acceptance providers. mPOS solutions – enabled by a mobile card reader wirelessly connected to a smartphone or tablet – hold three key benefits for merchants:

- ▶ **Quick on-boarding:** Merchants can instantly on-board themselves and have their card reader delivered within a few days.
- ▶ **Low initial costs and transparent pricing:** Blended transaction fees are free of monthly fixed charges and multi-year contracts.
- ▶ **Value-added services:** mPOS platforms are easy to understand and manage, allowing merchants to add other services beyond payments acceptance, such as bookkeeping or an e-commerce shop.

This clear value proposition, and the global ongoing transition from cash to electronic payments, is driving the mPOS boom. Global annual mPOS transactions are predicted to grow from 28 billion transactions in 2018 to 87 billion by 2023 – an annual average growth rate (CAGR) of over 25% (Juniper Research, 2018).⁴

Automating value-added services will boost profitability

Achieving profitability in the micro and small merchant segment requires payments providers to automate as many processes as possible. mPOS providers,

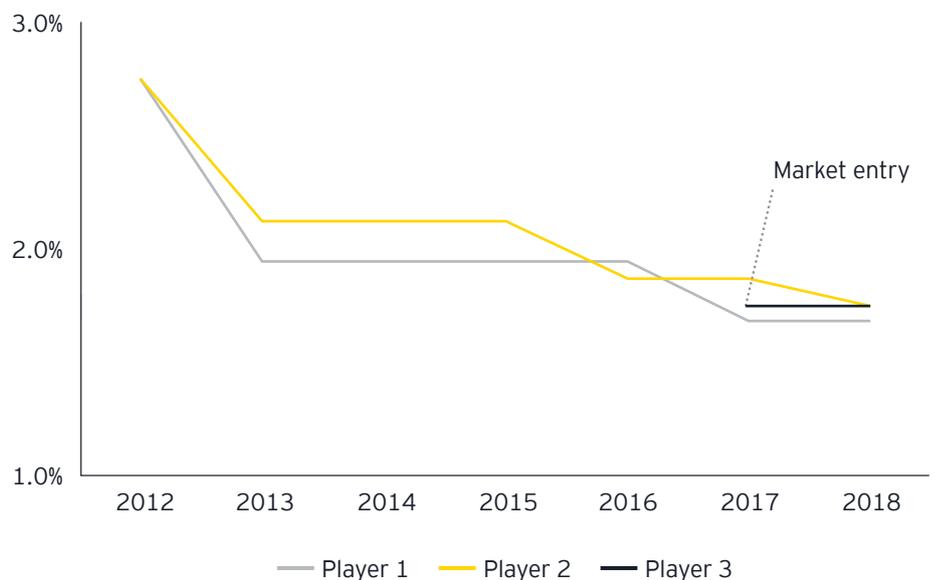
unburdened by legacy systems, have built systems and processes that almost fully automate on-boarding (including know your customer), customer service and fulfillment, both to keep costs down and offer a superior experience for merchants. Instead of the usual process that involves significant paperwork and several days, new mPOS merchants are on-boarded almost instantly.

With card readers generally sold below cost to fuel growth, the main source of revenue for mPOS providers comes via payments transactions fees. By typically acting as a payments facilitator, providers

25%

annual average growth rate of mPOS transactions by 2023

Development of MDR for selected mPOS players in the UK



Source: Company websites via Archive.org;

Note: Websites were archived at irregular intervals and therefore the archive date can vary between the companies. In case of tiered pricing, the arithmetic average of the highest and lowest price point was used.

⁴ <https://www.juniperresearch.com/press/press-releases/mobile-point-of-sale-devices-to-account-for-almost>

charge a mark-up on top of acquiring fees. This is usually in the form of a simple, volume-based transactions fee for debit and credit cards without any fixed fees per transaction or per month. To date, these volume-based fees have been relatively high, but, as in other segments of the payments industry, they are coming under pressure. EY analysis of the UK's competitive mPOS market revealed an ongoing erosion of average merchant discount rates (MDR) which have fallen from around 2.75% in 2012 to approximately 1.7% in 2019. With this decline expected to continue around the world (depending on the maturity of individual geographies), the need to offer comprehensive value-added services is becoming increasingly important if payments mPOS providers are to compensate for declining revenues from the pure payments acceptance business.

Successful transformation requires rethinking the platform strategy

Payments acceptance will remain at the heart of mPOS, but its relevance to payments providers is expected to shift as pure payments acceptance for smaller merchants becomes a commodity. More mPOS providers are moving toward offering the value-added services that support merchants, beyond payments, to run successful businesses. These services include:



In a traditional set-up, these products and services are typically provided by different providers and, therefore, are not (or only with effort) interoperable. mPOS providers can pool data between the offerings and develop new and better products and services. For example, a highly automated risk-scoring process for merchant financing based on transactional data can allow for a faster credit granting process, compared to traditional small and medium-sized Enterprise (SME) financing options.

Offering value-added services can also benefit mPOS providers by:

1. Increasing the stickiness of merchants
2. Allowing for product and service differentiation to mitigate pricing commoditization
3. Cross-selling products to an existing merchant base

With this in mind, most mPOS providers, depending on their maturity and level of success, are transitioning from being pure payments players to becoming full-SME solution providers. But, a successful transformation requires a diligent platform strategy. Players will need to decide whether to make, buy or partner to acquire the capabilities and technologies they need to offer the value-added services merchants demand. While less complex services such as inventory management software might be built

in-house, other products may be best obtained through M&A or partnerships.

A blueprint for adoption across payments?

mPOS providers have enjoyed fast growth within the small and micro merchant segment, almost undisturbed by industry incumbents. And, free from the constraints of legacy systems, these providers have developed new merchant acceptance solutions that include feature-rich ecosystems centered around payments. In a market environment where fees from transaction processing come under pressure, a strategic focus on value-added services can allow providers to continue their high growth.

The one-stop SME solution being developed by mPOS providers is a model that may be a blueprint for traditional acquirers faced with similar challenges. But, it also highlights the market entry barriers in the micro and small merchant segment for traditional acquirers, and raises concerns that mPOS providers wanting to accompany high-growth merchants on their journey are increasingly targeting larger merchants too.



Christian Löw



Jakob Schniewind

How improving online payments can foster a frictionless customer experience

Frictionless payments are a cornerstone of the digital economy, but enabling these customer experiences can be difficult – and costly. Three key steps can help merchants optimize budgets to invest in the seamless customer journey that will unlock new e-commerce opportunities.

Avoiding abandoned shopping carts

Abandoned shopping carts are a major challenge for online e-commerce businesses. And while the reasons shoppers fail to complete transactions is due to multiple reasons, we know that issues related to payments play a large part. In 2018, 17% of American online shoppers abandoned their cart because they did not trust the retailer's website enough to enter their credit card

details. Another 6% did not complete their purchase due to the lack of adapted payment methods; and 4% abandoned their cart when their payment was refused authorization. E-commerce continues to experience strong growth: over 19 % CAGR between 2012 and 2018 and over 20 % CAGR between 2018 and 2021. And, with sales set to top €4b globally by 2021⁵, reducing the rates of abandoned shopping carts is critical if businesses are to maximize revenue potential.

APIs and new payment methods are creating seamless customer journeys

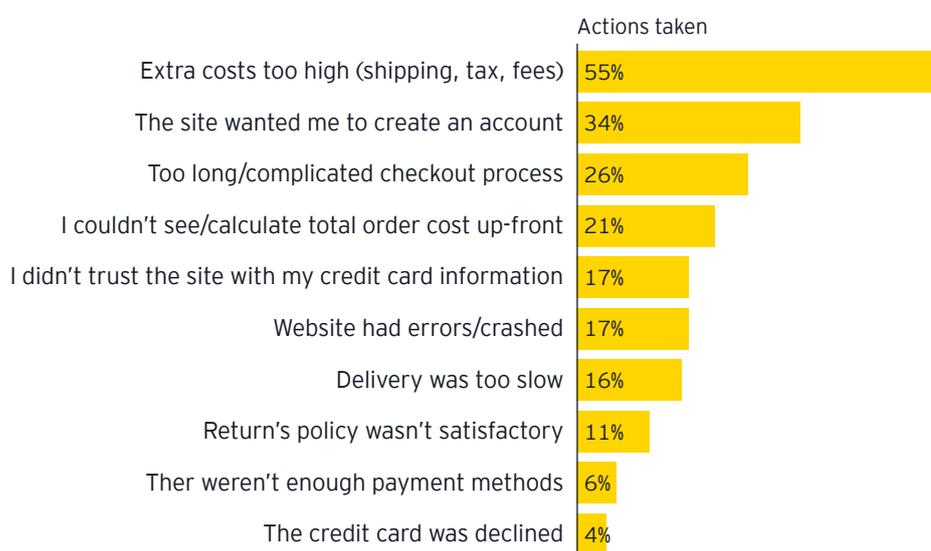
Today's customers demand seamless experiences in every aspect of their lives, particularly when they shop online. Removing the friction from e-commerce payments can be achieved in large part through application programming interface (APIs). APIs allow the information systems of merchants and banks or non-bank payment providers to connect through a digital platform, integrating all elements of the payments value chain, including Know Your Customer (KYC), on-boarding of payment details, identifying and authenticating customers, validating payments and, finally, notification of the completed purchase transaction. We are also seeing APIs open the door to new types of banking services such as real-time credit and crowdfunding.

At the same time, we also note the expansion of new payment methods which bypass credit card payments and create truly frictionless customer experiences:

- ▶ **Instant payments** that use an International Bank Account Number (IBAN) allow customers to pay for goods and services directly, giving merchants immediate access to funds. This creates a need for payment

⁵ Source Xerfi e-commerce Industry : The Market survey

Reasons for abandoning carts during checkout



service providers to ensure their systems can deal with fraud risks in real time and account for and make immediate accounting movements. The rapid development of big data and artificial intelligence (AI) can help pilot these new fraud management tools by using real-time mass analysis of structured and unstructured data to assess the behavioral profiles of debtors and customer fraud risk scores to validate transactions.

- ▶ **Social networks** such as WeChat use the prior processing of behavioral risk profiles payments to offer alternative means of payment, including QR code payments linked to users' bank accounts or credit cards. The Chinese messaging app integrates multiple data analyses services to validate payment using a new system – WeChat Pay Score. It rates users' credit based on their consumption patterns, compliance, and other behavior such as paying on time.
- ▶ **GAFA** (Google, Amazon, Facebook and Amazon) is gaining traction in the payments sector by pioneering new ways of paying that leverage these companies' superior knowledge of the customer experience. Notably, Facebook has recently announced its LIBRA.org project which will create a cryptocurrency backed by a Facebook wallet.

Reduce costs to free up investment in payments upgrades

As emerging payments providers develop new ways to remove the friction from payments, both traditional payments providers and merchants are under pressure. Keeping up with innovation from the likes of GAFA requires businesses to invest heavily in upgrading payments systems to integrate the new data technologies that will combat fraud, verify digital identity and realize the potential of APIs to create these new frictionless customer pathways.

These upgrades will cost companies billions to adapt their customer journey to



strong customer authentication. (A Stripe Payment Service Provider study estimates a US\$57b loss to adapt their journey to avoid more than US\$17b of fraud). This does not include the additional expenses of decommissioning existing systems and securing sought-after talent to run new technologies.

Financing this investment calls on businesses to generate significant savings and optimize budgets through three key levers.

1. **Reducing processing costs:** Reducing the costs of processing transactions can be an "easy win" for merchants seeking to generate funds to invest in an improved payments experience:
 - ▶ **Use volume to renegotiate:** The mass processing of payment transactions can allow the renegotiation of trader commissions and scheme fees.
 - ▶ **Use the right payments means for the right purchase:** Certain cards or payments means are better suited to

certain types of expenditure due to lower commission charges. Savings can be up to 50% of commissions and up to 5% of total cost of payments, equaling millions of dollars for large groups.

2. **Outsource processing:** Most major banks and retailers have decided to outsource their payments processing to regional or global operators that can better analyze payment flows to both identify sources of optimization and enable processing.
3. **Centralize payment transactions in one acquiring point:** Another option is for a merchant to acquire payment transactions in one point to consolidate them and negotiate direct agreements with schemes or a Global Payment Service Provider, thereby cutting out any acquirer fees based on volume.

These measures can free up budgets that can then be reinvested in frictionless payment technologies.

Focus investment on areas of biggest impact

But where should upgrades focus?

The best strategy combines optimizing e-commerce sites for mobile phones, strong authentication processes and enabling real-time payments through APIs. But getting this right is complex, requiring the integration of the different stages of the payments process through APIs. Real-time fraud management and robust authentication require mobilizing and analyzing massive amounts of transactions and credit data to manage the risk of fraud and allow for payments to take place instantly.

Companies must also keep the customer's end-to-end experience top of mind when making any changes. A frictionless experience goes beyond payments – companies may need to reinvent their entire digital experience to truly give customers what they want.

The new paradigm of payment: frictionless and subscription payment method

Beyond the technological investments, it is the entire approach to redesigning customer service that is creating a higher quality, frictionless customer experience. Pure digital players have always understood this and have long been integrating customer-centric approaches across every aspect of their businesses. This gives them a head start on their disruption of the payments market. For example, Facebook's LIBRA initiative leverages its Messenger app to allow users to pay with natively encrypted



currencies that allow for immediate settlement, reducing risks to the social network.

The growing presence of tech players and social networks in the sector highlights how payments have become more than just a means of encashment. They have become a tool in enabling a fluid customer journey that mobilizes data from banking and behavioral data from social networks to accelerate authentication and immediately calculate risk. Thus, they remove the barriers to payment put in place by risk management. The aggregation of these worlds is increasing trust among online shoppers – creating the true frictionless payments experience that can help reduce cart abandonment and position merchants to seize the opportunities of e-commerce growth.

Frictionless brick and mortar sales

The frictionless customer experience of new online retail is now transforming physical stores, taking the seamless customer journey to new levels. The success of Amazon's unstaffed Amazon Go stores may see the retailing giant open up 3000 of these outlets by 2021.⁶ In China, companies including Auchan Minute and BingoBox are capitalizing on the success of WeChat to open checkout-free stores where customers pay using the app.



Olivier Perrin

⁶ Bloomberg, <https://www.bloomberg.com/news/articles/2018-09-19/amazon-is-said-to-plan-up-to-3-000-cashierless-stores-by-2021>, 2018

M&A activity

Consolidation on investors' agenda amid a slower quarter

In Q2, the total disclosed transaction value within the payments sector reached US\$29.2b, largely driven by the acquisitions of TSYS and SafeCharge International Group.

M&A activity and deal characteristics

Q2 at a glance:

53 M&A transactions announced – down from 65 in Q1

12 transactions with financial terms disclosed

US\$29.2b total deal value – a decline from US\$87b in Q1



M&A activities remain strong in payments, with increased multiples over the last quarter. Assets positioned in high-growth markets are commanding high valuations.

One deal contributes 90% of Q2 value

As in Q1, almost all (90%) of this quarter's transaction value was contributed by one megadeal – Global Payments' acquisition of Total Systems Services (TSYS) for US\$26.2b (equity value of US\$22.1b).

This represented 6.4x the last twelve months (LTM) revenue and 23x LTM EBITDA⁷ for US-based TSYS, which provides payments processing, merchant, and related payments services to financial and non-financial institutions worldwide. The deal is expected to help the combined company develop a market-leading position in integrated payments; software for merchant and issuing; increase their scale in e-commerce and omni-channel solutions; enable exposure to faster growth geographies as well as digital payments trends and also enhance financial strength and flexibility.⁸

It's expected that the new company will generate approximately US\$8.6b in annual adjusted net revenue, plus

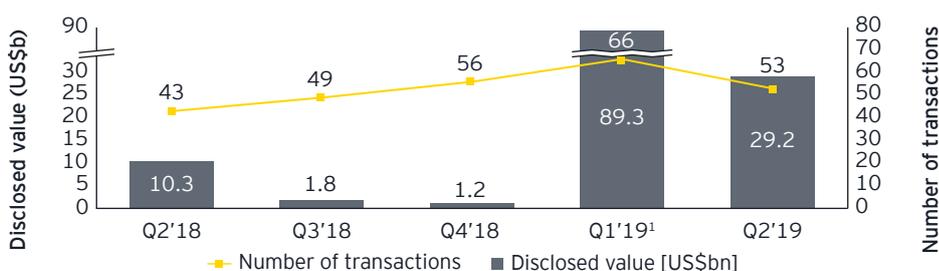
network fees and approximately US\$3.5b in adjusted EBITDA on a pro forma basis for 2019, inclusive of run-rate revenue and expense synergies.

Companies chase scale through acquisitions

Also, this quarter, Nuvei Corporation announced the acquisition of a 100% stake in SafeCharge International Group Limited for an enterprise value of US\$771m (equity value of US\$841m) or 5.6x LTM revenue and 23.8x LTM EBITDA.

SafeCharge, based in the UK's Channel Islands, provides omni-channel payments services and risk management solutions worldwide. Nuvei and SafeCharge are highly complementary from multiple perspectives, including geography, technology, key verticals and customers; and the deal will help the firms create a payments business with significant scale. SafeCharge's growth ambitions are also likely to benefit from Nuvei's North American footprint and sales and marketing capability.⁹ SafeCharge's

Fig. 1: M&A market development



Source: EY analysis, Capital IQ, Mergermarket

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

⁷ Capital IQ

⁸ TSYS Press Release

⁹ Press Release

board has projected revenue in the range of US\$155m to US\$165m for its 2019 financial year and adjusted EBITDA between US\$40m and US\$42m.

Another notable deal in Q2 was PayU Global's acquisition of iyzico Payment Services for an implied enterprise value of US\$165m. iyzico Payment Services is a Turkey-based firm that develops and operates an online platform that enables online merchants to accept credit cards and other alternative payments methods. The transaction will enable PayU to accelerate its scale and efficiency in Turkey, which has huge growth potential for e-commerce and online payments. It will also facilitate the building of an online bridge between Turkey, Central and Eastern European countries and Africa to encourage more cross-border trade in local currencies in the region.¹⁰

Valuations increase

The median EBITDA multiple for all disclosed deals year-to-date increased from 12.3x in 2018¹¹ to 20.3x in YTD'2019. The median revenue multiple for the same period also increased from 3.3x to 4.7x.

Deal by region and segment

In Q2 2019, deal targets were based in

- ▶ North America – 46%
- ▶ Asia-Pacific – 25%
- ▶ Europe – 23%

We expect to see further strong M&A activity for the second half of 2019, with more cross-border buyers entering the segment.

¹⁰ Naspers Press Release
¹¹ Includes all deals in 2018



Andreas Habersetzer



Dawei Wang

M&A outlook

Consolidation remains the key driver for payments deals, as companies use acquisitions to fill capability gaps, expand across geographies and achieve scale. This is a sector that continues to offer investors the long-term growth they seek, with activity and valuations defying the global uncertainty that is impacting other segments.



Growth potential and the continuous underlying innovation of the payments sector is expected to drive a robust M&A environment through 2019 and beyond.

Fig. 2: Median enterprise value multiples

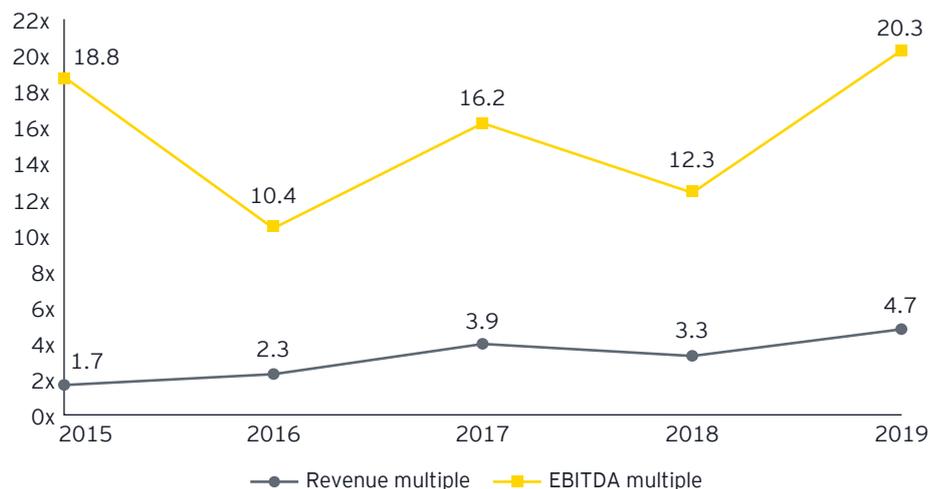
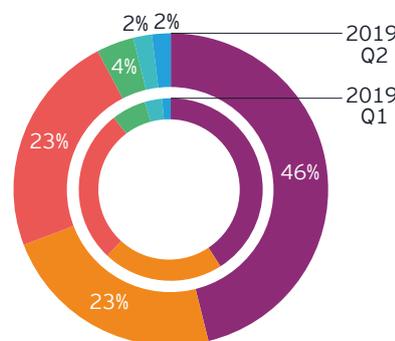


Fig. 3: Targets by region

Represents % share of each region by number of deals

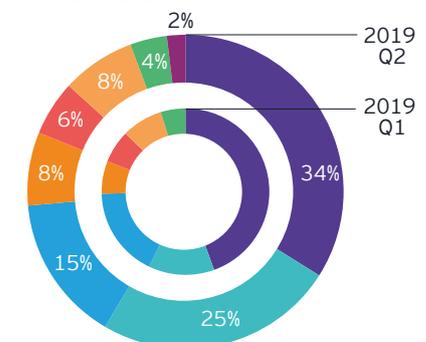


- North America
- Asia
- Europe
- Middle East, Africa (MEA)
- South America
- Australia

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

Fig. 4: 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

Venture capital funding activity

Q2 at a glance:

105

venture capital (VC) deals – the highest in two years and a c.18% increase from Q1 2019

US\$3.7b

total VC deal value

US\$418m

investment in PayPay Corporation was biggest VC deal of Q2

Developed markets offer opportunities to investors

Plentiful opportunities led to significant VC investment in payments this quarter. A large number of businesses came to market and were sought after by these investors whose appetite for the sector remains strong.

As seen last quarter, early stage and seed investments attracted most funding activity in Q2. Again, payments acceptance devices and alternative payments systems were popular targets, accounting for 38% and 20% of deals, respectively.

North and Central America attracted most deals (42%), followed by Europe (25%) and Asia (27%). In terms of value, North and Central America also dominated, accounting for 43% of total deal value, followed by Europe (30%) and Asia (25%).

This quarter witnessed strong investment activity in developed economies, in particular across North America and Europe, highlighting the large addressable opportunity in those markets. The use of electronic payments in these regions is on the rise due to favorable demographics, the push for financial inclusion, supportive regulatory changes, FinTech innovation and a gradual increase in the adoption of alternative payments methods.

Investors focus on new payments channels

A notable emerging trend in VC investments is the increasing prominence of the platform approach. Industry participants across the world have

witnessed the success of WeChat and Ant Financial, which demonstrate how powerful the platform proposition can be for both consumers and businesses. Borne out of those platforms, new generation e-wallets are expected to increasingly gain traction, to a certain extent pushing the industry towards a collaborative ecosystem enabled by integrated and seamless payment experiences.

Large-scale strategic partnership for digital payments

A significant deal in Q2 was Softbank's US\$418m investment in PayPay Corporation, a Japanese technology company that lets users make payments using barcodes on their smartphones. PayPay is expected to play a central role in providing a payments platform among the SoftBank group companies. The company will raise funding through the third-party allotment method.¹² The deal is part of SoftBank's plan to invest US\$4b in increasing its stake to 45% in PayPay's parent company Yahoo! Japan and raise profits by 24%.¹³

In Q2 2019 asset manager firm Invesco injected an additional US\$300m in Grab, the Southeast Asian ride hailing, mobile payments and food delivery app. The new funding raises Invesco's total funding of Grab to US\$703m, following the investment firm's acquisition of Oppenheimer funds, which originally provided US\$403m in funding to Grab in July 2018. The funding is expected to be used to accelerate the growth of financial services and mobility-enabled services businesses.¹⁴

¹² Press Release

¹³ Reuters

¹⁴ Press Release



We [Invesco] have been closely watching Southeast Asia and have every confidence in Grab's ability to unlock new opportunities across on-demand mobility, delivery and financial services in the region.

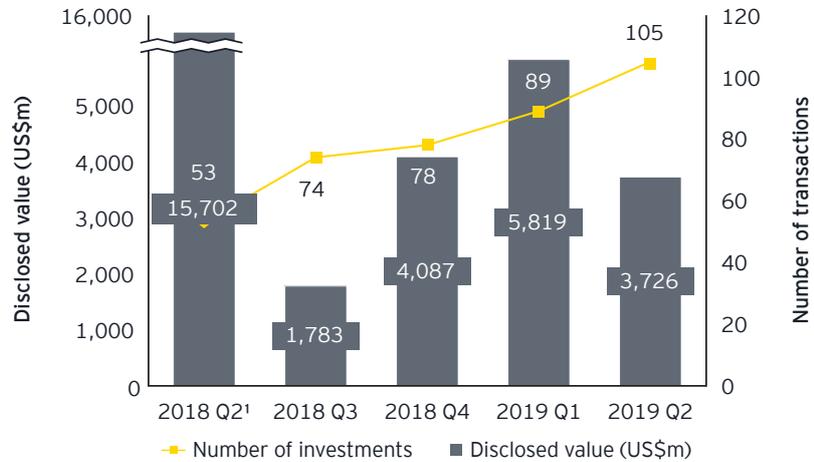
Grab is well-positioned, as a super app that is second-to-none in the region, to spearhead the evolution of user-driven technologies that will accelerate progress in Southeast Asia.

VC investment trends

Throughout 2019, we expect:

- ▶ Non-payments providers to move into payments and associated payments services
- ▶ More investment in crypto currency-driven e-wallets, which are gaining traction in certain markets

Fig. 5: Venture capital deal



Note: 1. Includes US\$14.0bn funding raised by Ant Financial from Temasek Holdings, GIC and other investors

Fig. 6: Number of deals by funding stage (in %)

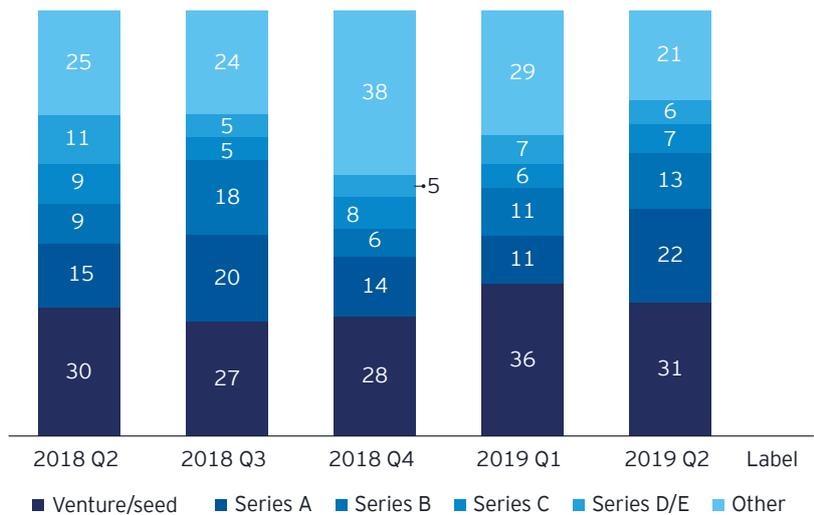


Fig. 7: Investment by sectors (in %)

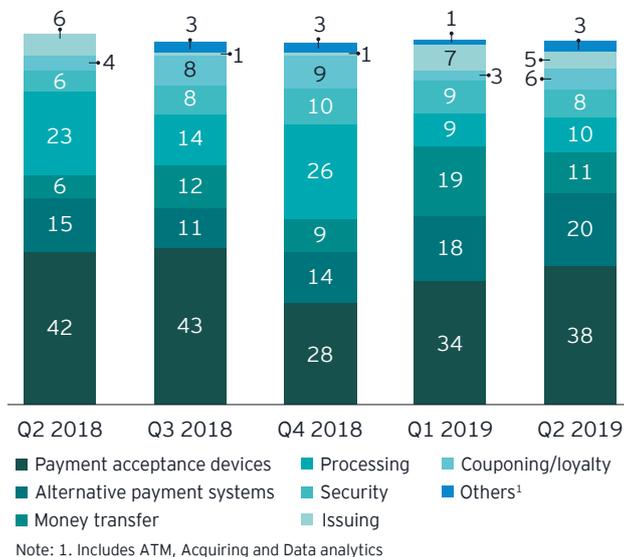
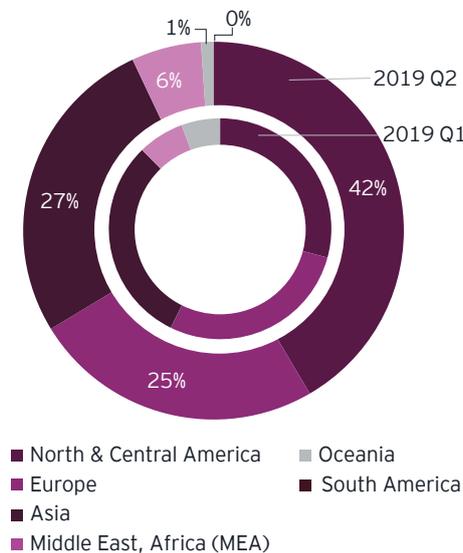


Fig. 8: Investment by region (in %)



Andreas Habersetzer



Dawei Wang

M&A

	Date announced	Target company	Country or region	Target description	Buyer(s)	Country or region	Enterprise value (US\$m)	Stake (%)
1	03 April 2019	iBank Marketing Co., Ltd.	Japan	iBank Marketing Co., Ltd. develops an application to manage personal finances. The company's application, Wallet+, allows balance inquiry, balance control, earn coupon, store digital coins.	The Nanto Bank, Ltd.	Japan	-	-
2	03 April 2019	iBank Marketing Co., Ltd.	Japan	iBank Marketing Co., Ltd. develops an application to manage personal finances. The company's application, Wallet+, allows balance inquiry, balance control, earn coupon, store digital coins.	The Juroku Bank, Ltd.	Japan	-	-
3	04 April 2019	Segovia Technology Co.	United States	Segovia Technology Co. provides payment gateway which handles thousands of simultaneous transactions with low latency.	Helios Investment Partners LLP; Crown Agents Bank Limited; CABIM Limited	-	-	100%
4	08 April 2019	ATM Group, Corp.	United States	ATM Group, Corp. owns and operates Automated Teller Machines (ATMs). The company provides ATM solutions to retailers. It offers ATM deployment services. The company was founded in 2004 and is based in San Juan, Puerto Rico. As of April 8, 2019, ATM Group, Corp. operates as a subsidiary of Paramount Management Group LLC.	Paramount Management Group LLC	United States	-	100%
5	10 April 2019	LLC Inspired	Uzbekistan	LLC Inspired, doing business as Payme, owns and operates a payment platform. The platform facilitates utility payments, person-to-person (P2P) transfers, loan repayments, mobile portable point of sale (mPOS) for Quick Response (QR) based payments, and e-commerce purchases. The company was founded in 2011 and is based in Tashkent, Uzbekistan. As of April 30, 2019, LLC Inspired operates as a subsidiary of TBC Bank Group PLC.	TBC Bank Group PLC	United Kingdom	10.8	51%
6	12 April 2019	Wibmo Inc.	United States	Wibmo Inc. provides payments solutions and processing services to customers, banks, and merchants. The company offers WIBMO Mobile Payments Network, a mobile payment ecosystem that enables credit and debit card holders to make mobile payments directly from their cards at VISA and MasterCard merchants; and WibmoPay, a payment ecosystem and marketplace for consumers. It provides e-commerce authentication services, online mobile payments, one-step payment, mobile money account, merchant integration, payment gateway, and recharge and bill payment services, as well as enables users to make and accept payments with mVisa. Wibmo Inc. was formerly known as enStage, Inc. The company was incorporated in 1999 and is based in Cupertino, California with a data center in Bengaluru, India. As of April 12, 2019, Wibmo Inc. operates as a subsidiary of PayU Group.	PayU Group	Czech Republic	70.0	100%

M&A

	Date announced	Target company	Country or region	Target description	Buyer(s)	Country or region	Enterprise value (US\$m)	Stake (%)
7	16 April 2019	Novo Mundo Corretora de Câmbio S/A	Brazil	Novo Mundo Corretora de Câmbio S/A engages in the intermediation of foreign exchange operations and practice of foreign exchange market operations. Its services include buying and selling currencies, remittances and international transfers, market monitoring, delivery/travel money, and purchase of foreign checks. The company was founded in 2006 and is based in São Paulo, Brazil. Novo Mundo Corretora de Câmbio S/A operates as a subsidiary of TTT Moneycorp Limited.	TTT Moneycorp Limited	United Kingdom	-	-
8	16 April 2019	Vyze, Inc.	United States	Vyze, Inc. provides point-of-sale payment options to match the flexibility and convenience of today's shopping experiences.	Mastercard Incorporated	United States	-	100%
9	17 April 2019	Touchtech Payments Ltd.	Ireland	Touchtech Payments Ltd. provides services, which aid in online transaction authentication for financial institutions. It offers a transaction authentication platform to increase transaction rate and reduce fraud. The company was founded in 2014 and is headquartered in Dublin, Ireland. As of April 17, 2019, Touchtech Payments Ltd. operates as a subsidiary of Stripe, Inc.	Stripe, Inc.	United States	-	100%
10	18 April 2019	Payzone plc	Ireland	Payzone plc, through its subsidiaries, operates a consumer payments acceptance network that provides payment services in Europe. It offers a suite of in-store, online, and mobile payment solutions that include mobile top-ups, tolling payments, electronic gifts, transport ticketing, bill payments, and pre-payment meter services in Ireland; and supplies terminals to retail outlets in the convenience sector, such as convenience stores, newsagents, and off-licenses that accept payments on behalf of its partners, as well as terminals to small to medium-sized businesses in the general retail sector, including beauty salons, clothing stores, restaurants, bars, and car servicing and motor accessories outlets that allow those businesses to accept credit and debit card payments in the United Kingdom. The company also operates as a mobile prepay distributor in Romania; handles electronic cash payments from card payments to loyalty programs in the Nordic countries; and offers mobile top-up, fixed line, pre-paid Internet, bill payment, video on demand, and prepaid credit card solutions in Greece. The company was formerly known as alphyra Holdings Ltd and changed its name to Payzone plc in December, 2007. Payzone plc is headquartered in Dublin, Ireland.	First Data Corporation; AIB Group plc	United States, Ireland	-	100%

M&A

	Date announced	Target company	Country or region	Target description	Buyer(s)	Country or region	Enterprise value (US\$m)	Stake (%)
11	22 April 2019	Innova Solutions Inc.	United States	Innova Solutions Inc. provides information technology (IT) services. The company offers cloud services that include cloud transformation, cloud optimization, continuous compliance, enterprise cloud services, CI/CD enablement, container enablement, and cloud application services; data services; and payment solutions. It also provides SmartEdge, a decentralized digital payment platform that empowers financial institutions to build, operate, and deliver payment network for their customers; build, operate, and transfer services; and IT managed services. Innova Solutions Inc. was formerly known as Clairvoyant Techno Solutions Inc. The company was founded in 2003 and is based in Santa Clara, California. It has field offices in New York, New York; Chennai, Bengaluru, Hyderabad, and Visakhapatnam, India; and Taipei, Taiwan. As of March 14, 2019, Innova Solutions Inc. operates as a subsidiary of American CyberSystems, Inc.	American CyberSystems, Inc.	United States	–	100%
12	23 April 2019	GreenSky, Inc.	United States	GreenSky, Inc., a technology company, provides point-of-sale financing and payment solutions to merchants, consumers, and banks. It offers a proprietary technology infrastructure that supports the full transaction lifecycle, including credit application, underwriting, real-time allocation to bank partners, document distribution, funding, settlement, and servicing functions. The company was incorporated in 2017 and is headquartered in Atlanta, Georgia.	–	–	–	–
13	25 April 2019	Payment Partners, Inc.	United States	Payment Partners, Inc., a payment processor, provides electronic funds transfer and payment services. It offers payment services in two formats, En-point Online, an online service for businesses and individuals for making infrequent international payments or transfers to receivers; and En-point Direct, a Web service system for B2B and C2B applications involving transactions from multiple senders. The company is headquartered in Irvine, California. As of April 25, 2019, Payment Partners, Inc. operates as a subsidiary of Revint Solutions.	Revint Solutions, LLC	United States	–	100%

M&A

	Date announced	Target company	Country or region	Target description	Buyer(s)	Country or region	Enterprise value (US\$m)	Stake (%)
14	29 April 2019	MINDBODY	United States	MINDBODY, Inc. operates a cloud-based business management software and payments platform for the small and medium-sized businesses in the wellness services industry. Its platform enables businesses to run, market, and build scheduling and online booking, performance tracking, staff management, client relationship management, integrated payment processing, retail point-of-sale, purchase tracking, inventory, hardware integration, analytics and reporting, branded Web, mobility, social integration, client acquisition dashboard, security and compliance, and integration with other cloud-based partners for yoga, Pilates, indoor cycling, group and personal training, boutique fitness, salons, spas, and integrative health businesses. The company offers its software platform to its subscribers as a subscription-based service. It also connects consumers with businesses through its MINDBODY app, a consumer-facing mobile application that allows consumers to discover, evaluate, book, and pay for wellness services; MINDBODY Network, a fee-based platform that connects its customers with local consumers through the MINDBODY app and third-party partner applications, or Websites; and MINDBODY API Platform and Partner Ecosystem, a platform focuses in areas, such as marketing automation, accounting, loyalty, mobile, and social interactions. The company sells its subscriptions through a direct sales team primarily in San Luis Obispo, California; the United Kingdom; and Australia. MINDBODY, Inc. was founded in 2001 and is headquartered in San Luis Obispo, California.	Deutsche Bank AG	Germany	-	-
15	02 May 2019	Cash Plus SA	Morocco	Cash Plus SA manages financial remittances of emigrants between Europe and Morocco. The company was founded in 2004 and is based in Casablanca, Morocco.	Le Groupe Richbond	Morocco	-	29%
16	02 May 2019	NXGEN Payment Services, Inc.	United States	NXGEN Payment Services, Inc. provides online payment services. The company offers monthly statement generation, online reporting, merchant processing, recurring billing, currency conversion, and verification and processing checking services. Its products include credit, debit, and gift and loyalty cards. Additionally, the company organizes bank and credit union referral programs. It caters to retail, Internet, hospitality, mail order, lodging, and government sectors. NXGEN Payment Services was founded in 1999 and is based in Whitefish, Montana. As of May 2, 2019, NXGEN Payment Services, Inc. operates as a subsidiary of First Financial Merchant Services, LLC.	First Financial Merchant Services, LLC	United States	-	100%

M&A

	Date announced	Target company	Country or region	Target description	Buyer(s)	Country or region	Enterprise value (US\$m)	Stake (%)
17	03 May 2019	Transactis, Inc.	United States	Transactis, Inc. develops and provides Software-as-a-Service based electronic bill presentment and payment solutions for businesses in the United States. The company offers BillerIQ, a cloud-based electronic bill presentment and payment platform that enables businesses to deliver electronic bills and invoices, as well as accept payments online, by phone, and through mobile devices. It also provides DocumentIQ, a digital document management and storage solution that allows companies to transform, archive, and present documents electronically. The company serves financial service, insurance, public sector, utility, real estate and property management, healthcare, education, collection, food and beverage, hospitality and leisure, media and telecommunication, retail and wholesale, business services, and manufacturing/distribution/logistic markets. It offers products through a network of resellers, including financial institutions, technology companies, and business process outsourcers. Transactis, Inc. was incorporated in 2001 and is based in New York, New York. As of May 16, 2019, Transactis, Inc. operates as a subsidiary of Mastercard Incorporated.	Mastercard Incorporated	United States	–	100%
18	03 May 2019	Lotte Card CO.,LTD.	South Korea	Lotte Card CO.,LTD. operates as a credit card company in South Korea. The company offers L.POINT cards, which can be used as cash in various LOTTE stores; and partnership and specialized cards. Its service network covers LOTTE Group infrastructure, including department stores, hypermarkets, home shopping, cinemas/theaters, and coffee shops. The company was founded in 2002 and is based in Seoul, South Korea.	Hahn & Company	South Korea	–	80%
19	06 May 2019	Texas P.O.S., Inc.	United States	Texas P.O.S., Inc. provides point of sale systems and software for restaurants, hotels, and clubs. It offers products that help staff to enter orders and payments, streamline food preparation and delivery, and improve operations; and manage guest details, mobile ordering and payments, and takeout and delivery. The company also provides products and solutions to manage operations, control costs, monitor restaurants, view and print reports, access sites, monitor and diagnose remotely, manage database, and defense network, as well as for console reporting; and kitchen display systems and EMV chip card readers. In addition, it offers products to deploy gift card programs, deliver rewards and incentives, and order online; products for self-ordering; and customer loyalty, retention, and referral tool that provides feedback of the customer's experiences. The company was founded in 1992 and is based in Houston, Texas. As of May 6, 2019, Texas P.O.S., Inc. operates as a subsidiary of NCR Corporation.	NCR Corporation	United States	–	100%

M&A

	Date announced	Target company	Country or region	Target description	Buyer(s)	Country or region	Enterprise value (US\$m)	Stake (%)
20	09 May 2019	Walletron, Inc.	United States	Walletron, Inc. provides a platform that enables enterprise clients to automate the entire life cycle of distributed wallet items. Its portfolio includes cloud-based solutions, such as Walletron moBills, a solution that allows billers to open a new payment and presentment channel in a centralized location on smartphones; and Walletron Loyalty solution, which enables to systematically maintain a branded presence on customers' mobile devices, notify customers within close proximity to their locations, send instant over-the-air updates, gather real-time performance data, and leverage built-in segmentation to push highly-targeted content to the right individuals at the right time. The company's platform integrates into iOS and Android mobile wallets; and facilitates client system integration and app-less notifications. It serves billers and retailers, as well as the hospitality industry in the United States and internationally. The company was incorporated in 2012 and is based in Ardmore, Pennsylvania. As of May 9, 2019, Walletron, Inc. operates as a subsidiary of ACI Worldwide, Inc.	ACI Worldwide, Inc.	United States	3.4	100%
21	14 May 2019	Infinity International Limited	United Kingdom	Infinity International Limited provides foreign exchange and payment services to individuals, and companies and organizations. It offers facilities to buy and sell currencies worldwide. The company was founded in 2007 and is based in London, United Kingdom with additional offices in the United Kingdom, Spain, Portugal, and France. As of May 14, 2019, Infinity International Limited operates as a subsidiary of Foreign Currency Direct Plc.	Foreign Currency Direct Plc	United Kingdom	–	100%
22	20 May 2019	Payment Plus, Inc.	United States	Payment Plus, Inc. offers electronic payment processing services and equipment to businesses. The company was founded in 1999 and is based in Paducah, Kentucky. As of May 20, 2019, Payment Plus, Inc. operates as a subsidiary of NXGEN Payment Services, Inc.	NXGEN Payment Services, Inc.	United States	–	100%
23	21 May 2019	Lotte Card CO.,LTD.	South Korea	Lotte Card CO.,LTD. operates as a credit card company in South Korea. The company offers L.POINT cards, which can be used as cash in various LOTTE stores; and partnership and specialized cards. Its service network covers LOTTE Group infrastructure, including department stores, supermarkets, home shopping, cinemas, theaters, and coffee shops. The company was founded in 2002 and is based in Seoul, South Korea.	Woori Financial Group Inc.; MBK Partners	–	–	80%

M&A

	Date announced	Target company	Country or region	Target description	Buyer(s)	Country or region	Enterprise value (US\$m)	Stake (%)
24	21 May 2019	Aconite Technology Ltd	United Kingdom	Aconite Technology Ltd develops Europay MasterCard and Visa and smart card products. The company issues smart cards and manages their lifecycles, authenticates cards and transaction data during authorization processing, and implements risk management by updating card settings in the field, as well as captures, distributes, and changes PINs electronically. Its products include Aconite Payment Application Manager, a solution for the issuance and management of Europay, MasterCard, and VISA (EMV) payment cards and cards with other smart applications, such as transit, eID, and healthcare; Aconite EMV Transaction Manager, a solution for EMV transaction authorization, data analytics, and EMV scripting; and Aconite PIN Manager, a solution for electronic capture and distribution of PINs through digital channels, including web and mobile banking, SMS, and interactive voice response. The company was founded in 2000 and is based in London, United Kingdom. As of May 21, 2019, Aconite Technology Ltd operates as a subsidiary of Cryptomathic A/S.	Cryptomathic A/S	Denmark	–	100%
25	22 May 2019	Cloud Payments International, LLC	Latvia	Cloud Payments International, LLC designs online payment solutions for the e-commerce market. It offers CloudPayments system, a universal processing system for processing payments with bankcards via international payments systems, such as Visa and MasterCard. It also provides payment and return of funds (refund) in rubles and other world currencies. Cloud Payments International, LLC was founded in 2014 and is based in Riga, Latvia. As of October 11, 2017, Cloud Payments International, LLC operates as a subsidiary of Joint Stock Company Tinkoff Bank.	Joint Stock Company Tinkoff Bank	Russia	–	35%
26	22 May 2019	SafeCharge International Group Limited	Guernsey	SafeCharge International Group Limited, together with its subsidiaries, provides omnichannel payment services and risk management solutions in Europe and internationally. The company offers SafeCharge Payments Engine, an end-to-end proprietary payment platform, including omnichannel checkouts services across online, mobile, and point of sale channels; Rules Engine that provides real-time fraud screening rules that can block or flag customers transactions; and optimization solutions. It also provides SafeCharge Marketplace Manager, which allows marketplaces to outsource a part or full payment function, including payment flow and splitting, such as on-boarding, payment management, and compliance solutions. In addition, the company offers pay-in methods; and pay-out methods, including local and real-time bank transfers, and credit funds transfer on cards and wallets, as well as PAY.COM for issuing prepaid cards. It serves customers in the retail, travel, gaming, digital goods, and financial services industries. The company was founded in 2006 and is based in St Peter Port, Guernsey. SafeCharge International Group Limited is a subsidiary of Northenstar Investments Limited.	11411802 Canada Inc.	Guernsey	771.3	100%

M&A

	Date announced	Target company	Country or region	Target description	Buyer(s)	Country or region	Enterprise value (US\$m)	Stake (%)
27	27 May 2019	MyCheck LLC	United States	MyCheck LLC develops a mobile payment application. The company offers MyCheck, a mobile payment application that allows users to pay straight from their smartphone at full-service restaurants, quick-service shops, hair salons, spas, and more; and check themselves without waiting for the check or the credit card slip. Its MyCheck solution also provides services for merchants, including loyalty and promotional programs, and access to a real-time dashboard that provides analytics on MyCheck users. In addition, the company offers MyWallet SDK, which allows developers to enable the secure and convenient management of multiple payment methods across various native applications and Websites with a single integration. MyCheck LLC has a strategic partnership with Isracard. The company was founded in 2011 and is based in New York, New York.	Shiji Group	China	-	100%
28	27 May 2019	MonPay	-	"MonPay provide a easy to integrate payment gateway to businesses, accept credit cards, PayPal, Paysafecard and Bitcoin today."	Vingroup	Vietnam	-	100%
29	28 May 2019	Sureswipe (Pty) Limited	South Africa	Sureswipe (Pty) Limited is a card payment acceptance company that enables card payment acceptance services to independent retailers and service providers. It provides card payment, integrated payments, prepaid vouchers, and loan services. The company was founded in 2008 and is based in Bryanston, South Africa with additional offices in Westville and Cape Town, South Africa.	Apis Partners LLP; Apis Growth Fund I, L.P.; Crossfin Technology Holdings	United Kingdom, South Africa	-	100%
30	28 May 2019	Total System Services, Inc.	United States	Total System Services, Inc. provides payment processing, merchant, and related payment services to financial and nonfinancial institutions worldwide. The company operates through three segments: Issuer Solutions, Merchant Solutions, and Consumer Solutions. It offers general purpose reloadable prepaid and payroll cards, demand deposit accounts, and other financial service solutions to the underbanked and other consumers and businesses. The company also provides third party processing and related services for credit card issuers, merchant acquirers, independent sales organizations, and financial institutions; and issuer processing services, as well as operates as a prepaid program manager. Total System Services, Inc. was founded in 1983 and is headquartered in Columbus, Georgia.	Global Payments Inc.	United States	26213.4	100%

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	Date announced	Target company	Country or region	Target description	Buyer(s)	Country or region	Enterprise value (US\$m)	Stake (%)
31	03 June 2019	Pace Payment Systems, Inc.	United States	Pace Payment Systems, Inc. provides payment and transaction solutions for businesses in the United States. It offers payment processing services for Visa, MasterCard, Discover, American Express, ATM, debit cards, EBT state and government cards, and electronic gift and loyalty cards. The company also provides retail, wireless, E-Commerce, PC based, PIN based debit, electronic check conversion processing, merchant advance, ATM placement, and graphic design solutions; and gift and loyalty cards. It serves retail stores, restaurants, supermarkets, and lodging merchants; and mail order and telephone order, e-commerce, Internet, and home-based clients. The company was founded in 1999 and is based in Chatsworth, California. As of May 31, 2019, Pace Payment Systems, Inc. operates as a subsidiary of i3-SDCR, LLC.	i3-SDCR, Inc.	United States	134.5	100%
32	03 June 2019	Hallmark Business Connections, Inc.	United States	Hallmark Business Connections, Inc. provides business relationship marketing services for organizations. It offers solutions to recognize and reward employees; attract, retain, and re-engage customers; deliver turnkey, custom sales programs; and create incentives for corporate health and wellness programs. The company provides creative, marketing, personalization, and client services. It serves businesses ranging from small to medium sized companies up to the Fortune 50 to 500 companies. The company is based in Minneapolis, Minnesota with locations in Kansas City, Missouri; and Duluth, Minnesota. As of June 3, 2019, Hallmark Business Connections, Inc. operates as a subsidiary of InComm, Inc.	InComm Inc.	United States	-	100%
33	04 June 2019	PayMate India Private Limited	India	PayMate India Private Limited offers cloud-based electronic business-to-business payment solutions. The company provides vendor payment, customer payment, invoicing, and cash flow automation and management services. It caters to large, and small and medium-sized enterprises. PayMate India Private Limited was founded in 2006 and is based in Mumbai, India. As of January 31, 2019, PayMate India Private Limited operates as a subsidiary of WorldQuest International.	WorldQuest International	Malaysia	-	100%
34	05 June 2019	Flinto	Mexico	As of June 5, 2019, Flinto was acquired by Grow Mobility. Flinto develops a wallet that enables people to make peer-to-peer payments, add minutes and text messages to their phone, and pay bills and merchants. The company was founded in 2017 and is based in Mexico City, Mexico.	Grow Mobility	Mexico	-	100%
35	07 June 2019	YuuPay Secure Pte Ltd.	Singapore	YuuPay Secure Pte Ltd. provides payment services for online and mobile merchants. The company was founded in 2012 and is based in Singapore. YuuPay Secure Pte Ltd. operates as a subsidiary of YuuZoo Networks Group Corporation.	-	-	154.8	3%

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	Date announced	Target company	Country or region	Target description	Buyer(s)	Country or region	Enterprise value (US\$m)	Stake (%)
36	11 June 2019	iyzico Teknoloji Ödeme ve Elektronik Para Hizmetleri A.S.	Turkey	iyzico Teknoloji Ödeme ve Elektronik Para Hizmetleri A.S. develops and operates an online platform that enables online merchants to accept credit cards and other alternative payment methods. The company also operates an e-commerce platform. The company was founded in 2012 and is based in Istanbul, Turkey. As of June 16, 2019, iyzico Teknoloji Ödeme ve Elektronik Para Hizmetleri A.S. operates as a subsidiary of PayU Global B.V.	PayU Global B.V.	Netherlands	165.0	100%
37	11 June 2019	VIMO Technology JSC	Vietnam	VIMO Technology JSC operates a mobile wallet for fund transfers, bill payments, online shopping, top-ups, and cash withdrawal channels. The company is based in Hanoi, Vietnam.	MPOS Vietnam Technology Joint Stock Company	Vietnam	-	100%
38	13 June 2019	allpago GmbH	Germany	allpago GmbH develops payment solution for merchants in Latin America. The company provides gateway services, payment collection, risk management solution, business intelligence platform, customized reporting, tax advisory, multilingual 24/7 customer support, professional services and proactive support. The company was founded in 2010 and is based in Berlin, Germany with additional offices in São Paulo, Brazil; Mexico City, Mexico; Buenos Aires, Argentina; Bogotá, Colombia; Santiago de Chile, Chile and Lima, Peru. As of June 13, 2019, allpago GmbH operates as a subsidiary of PPRO Financial Ltd.	PPRO Financial Ltd.	United Kingdom	-	100%
39	13 June 2019	National Payments Corporation of India	India	NPCI is an umbrella organization for all retail payments in India.	-	-	-	-
40	13 June 2019	Satoshi Citadel Industries Inc.	Philippines	Satoshi Citadel Industries Inc. provides bitcoin solutions in the Philippines. Its products include Rebit.ph, a rebittance site that allows users to pay out in cash via banks and local pawnshop networks, or via mobile airtime load and bills payment; Bitbit, an e-wallet that allows users to send, receive, and share money with friends and family through email, mobile, and social media; BuyBitcoin.ph, a consumer exchange to buy, sell, and learn about Bitcoin; and Bitmarket.ph, a Bitcoin payment processor that provides merchants with the ability to sell their products using digital payments. The company's products also include Prepaidbitcoin.ph that provides prepaid Bitcoin cards; a Bitcoin faucet that allows users to earn Bitcoin through winning daily contests, getting Bitcoin tips, and liking posts; a Bitcoin exchange for coinage; a bills payment system that utilizes Bitcoin to facilitate payment for utilities, phone, cable, insurance, credit cards bills, and mobile credit; a Bitcoin donation platform; and a buy Bitcoin direct service. Satoshi Citadel Industries Inc. was founded in 2014 and is based in Makati City, the Philippines.	Cebuana Lhuillier Services Corporation	Philippines	-	-
41	13 June 2019	eWise Group Inc.	United States	"eWise Group (PayWithMyBank) is an online payment alternative that allows customers to log into online banking to pay, directly from the merchant site."	Trustly Group AB	Sweden	-	100%

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	Date announced	Target company	Country or region	Target description	Buyer(s)	Country or region	Enterprise value (US\$m)	Stake (%)
42	18 June 2019	ISA-Ecash	United States	ISA-Ecash is a trusted ATM managed services provider to banks, credit unions, which merchants rely on for cost-efficient ATM operations.	Payment Alliance International, Inc.	United States	–	100%
43	18 June 2019	Elmhurst Financial Services, LLC/Tandem Innovative Payment Solutions	United States	Elmhurst Financial Services, LLC/Tandem Innovative Payment Solutions represents the combined operations of Elmhurst Financial Services, LLC and Tandem Innovative Payment Solutions in their sale to Celero Commerce LLC. As of June 18, 2019, Elmhurst Financial Services, LLC/Tandem Innovative Payment Solutions was acquired by Celero Commerce LLC. Elmhurst Financial Services, LLC provides electronic payments processing services. The company is based in Brentwood, Tennessee. Tandem Innovative Payment Solutions operates as a credit card processing company. The company is based in Greenville, South Carolina.	Celero Commerce LLC	United States	–	100%
44	21 June 2019	PT Jalin Pembayaran Nusantara	Indonesia	PT Jalin Pembayaran Nusantara offers payment switching services. The company's services include ATM Switching and Debit Switching. PT Jalin Pembayaran Nusantara was founded in 2016 and is headquartered in Jakarta, Indonesia. As of June 19, 2019, PT Jalin Pembayaran Nusantara operates as a subsidiary of PT Danareksa (Persero).	PT Danareksa (Persero)	Indonesia	41.6	67%
45	24 June 2019	Vibe Group Holdings Limited	United Kingdom	Vibe Group Holdings Limited is a holding company. The company, through its subsidiaries, operates both a peer to peer ticket resale platform and payments platform. Its social community marketplace Vibe Tickets connects fans and allows them to resell tickets. Additionally, the company's peer to peer payments platform Vibe Pay offers direct to bank money transfers. It develops APIs which connects banks, infrastructure, and consumers. Vibe Group Holdings Limited was founded in 2018 and is based in Lancaster, United Kingdom.	Candy Ventures Sarl	Luxembourg	11.1	23%
46	24 June 2019	Shopkick, Inc.	United States	Shopkick, Inc. develops a mobile shopping companion application that helps users to save money and get rewarded. It allows users to find the deals and trending products at various stores, as well as earn rewards for everyday actions, such as store visits, product scans, and purchases. Shopkick, Inc. was formerly known as Cross-Platform Corporation. The company was founded in 2009 and is based in Redwood City, California with additional locations in San Francisco, California; New York and Chicago, the United States and Seoul, South Korea. As of June 24, 2019, Shopkick, Inc. operates as a subsidiary of Trax Technology Solutions Pte Ltd.	Trax Technology Solutions Pte Ltd.	Singapore	200.0	100%
47	24 June 2019	EZ Payments, Inc.	Spain	EZ Payments, Inc provides ATM processing and turnkey solutions to retailers. The company was founded in 2000 and is based in Porto Rico, Spain. EZ Payments, Inc operates as a subsidiary of Paramount Management Group LLC.	Paramount Management Group LLC	United States	–	100%

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	Date announced	Target company	Country or region	Target description	Buyer(s)	Country or region	Enterprise value (US\$m)	Stake (%)
48	24 June 2019	Eazy Collect Services Limited	United Kingdom	Eazy Collect Services Limited offers online debit services to business or organizations. Eazy Collect Services Limited was founded in 2002 and is based in Cheltenham, Gloucestershire, United Kingdom. As of June 24, 2019, Eazy Collect Services Limited operates as a subsidiary of Access UK Limited.	Access UK Limited	United Kingdom	–	100%
49	25 June 2019	CardChamp	United States	CardChamp is a payments company providing merchant services and payment processing solutions.	Pineapple Payments	United States	–	100%
50	27 June 2019	Transaction Services Holdings Limited	New Zealand	Transaction Services Holdings Limited, through its subsidiaries, provides direct debit billing solutions and services. The company manages the payment processing function for clients in industries including health and fitness facilities, sports clubs, property management companies, maintenance providers, home service providers, and insurance companies. Transaction Services Holdings Limited was incorporated in 2007 and is based in Auckland, New Zealand.	Advent International Corporation	United States	–	–
51	28 June 2019	Verifi, Inc.	United States	Verifi, Inc. provides a Software-as-a-Service platform that provides global electronic payment and risk management solutions for card-not-present (CNP) merchants. It offers a global payment gateway that provides real-time and batch, credit card, ACH, and eCheck payment processing for CNP merchants; and fraud and risk management solutions, including rules engine, intelligence suite, payer authentication, merchant cooperative transaction database, transaction filters and controls, and velocity controls. The company's global payment gateway that provides various networks support, transaction routing, payment vault tokenization, hosted payment page, billing management, multi-currency, and enterprise reporting solutions. It also provides Order Insights that enables issuing banks and cardholders to determine the legitimacy of a sale at the time a billing inquiry or dispute arises; managed services, which include chargeback representation, cardholder dispute resolution network, decline salvage, and data analytics solutions; and transaction risk management and mitigation, business optimization strategies, and cardholder authentication services for various credit card brands. Verifi, Inc. has a strategic alliance with Retail Decisions. The company was founded in 2005 and is headquartered in Los Angeles, California.	Visa Inc.	United States	–	100%
52	28 June 2019	Lotte Card Co., Ltd.	South Korea	Lotte Card Co, Ltd. is a Korean credit card company. Headquartered in Seoul, Lotte Card has a partnership with Lotte Capital, and both companies are part of the Lotte Corporation.	Lotte Shopping Co., Ltd.	South Korea	1422	20%
53	28 June 2019	Neos	France	NEOS, a Scan & Go mobile shopping app, to allow retailers to streamline the shopping experience for their customers.	Lyf Pay	France	–	–

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	Date announced	Target	Country	Round	Volume (US\$m)	Funding (US\$m)	Investor(s)	Segment	Description
1	02-04-19	Koku	Singapore	Seed	2.00	2.50	Decent Capital	Payment acceptance devices + Software	Provides software solutions which allow their clients to provide their agents, corporate and retail customers across the world with cheaper, quicker and digital-first remittance and FX services.
2	02-04-19	Bill.com	USA	Venture	88.00	347.10	Franklin Templeton Investments	Payment acceptance devices + Software	Provides cloud-based business payments platform which automates the steps of paying and getting paid, making it easier for businesses of all sizes.
3	05-04-19	Boost Payment Solutions	USA	Debt		7.00	North Atlantic Capital	Processing	Provides solutions and technology to optimize commercial card payments and acceptance, also providing greater payment flexibility, a lower cost of processing, and automated reporting.
4	08-04-19	Aino Indonesia	Indonesia	Venture	4.00	4.00	TIS	Processing	"Aino Indonesia is a payment processing company and system integrator for public transportation."
5	09-04-19	Cashfree	India	A	5.50	5.60	Smilegate Investment	Processing	Offers Payment Gateway, Money transfer API, NEFT Reconciliation, marketplace, settlements and subscriptions to Indian businesses.
6	09-04-19	Buckzy Payments	Canada	Seed	1.35	1.35	Revel Partners	Money transfer	Enables consumers and small businesses to send and receive money instantly.
7	09-04-19	MoneyMatch	Malaysia	Seed		0.61	Cradle Seed Ventures	Money transfer	Enables cross-border international payments and remittances.
8	10-04-19	Extend	USA	A	11.00	14.00	Point72 Ventures	Issuing	Offers digital credit card distribution platform for banks, FinTechs, businesses, and their customers.
9	10-04-19	PointCheckout	UAE	Seed	0.60	0.60		Couponing or Loyalty	"Offers digital payment method for reward points and miles."
10	10-04-19	Soldo Limited	UK	N/D	28.15	39.00		Other	Provides family spending account which allows users to make purchases and online payments.
11	11-04-19	Flexa	USA	N/D	14.10	14.10		Alternative payment systems	Provides instant blockchain payments.
12	12-04-19	Dashlane	USA	Debt		52.40	Hercules Capital, Inc.	Security	Dashlane is a password manager and digital wallet, designed to make identity and payment simple and secure.
13	16-04-19	Brex	USA	Debt		182.10	Barclays Investment Bank	Issuing	Provides a corporate credit card called the "Brex Visa" for technology companies.
14	16-04-19	Citcon	USA	B	5.00	5.00	East West Bank	Money transfer	Offers cross-border mobile payment and marketing platform which connects brands with Chinese consumers by integrating all forms of payments.
15	16-04-19	Cred	India	A	25.89	25.89		Couponing/ Loyalty	It is a members-only app which rewards a customer with exclusive rewards for paying credit card bill.
16	16-04-19	AtomX	India	N/D			BookMyShow	Alternative payment systems	Provides cashless payment facilities through NFC(Near-Field-Communication) technology in mobiles.
17	16-04-19	Chainalysis	USA	B	6.00	53.60	Sozo Ventures	Security	Offers anti-money laundering software for Bitcoin businesses.

Venture Capital

	Date announced	Target	Country	Round	Volume (US\$m)	Funding (US\$m)	Investor(s)	Segment	Description
18	16-04-19	Cashlez	Indonesia	A		2.00	Sumitomo Corporation	Processing	Offers payment solutions which include card-present payment gateway and merchant centric reporting tools.
19	17-04-19	Bolt Labs	USA	Seed	1.50	1.50	Dekrypt Capital	Alternative payment systems	Provides payment channel on which consumer can use Zcash, Bitcoin, Ethereum and other digital currencies for everyday payments and purchases.
20	17-04-19	Centbee	South Africa	A	1.31	1.31	Calvin Ayre	Alternative payment systems	Offers wallet for sending, receiving or storing Bitcoin.
21	17-04-19	Kantox	United Kingdom	Debt	5.65	27.19	Silicon Valley Bank	Payments acceptance devices + Software	Provides payment automation software to manage all foreign currency payments from one place.
22	17-04-19	Payfone	USA	G	24.00	112.10	TransUnion	Security	Develops mobile and digital identity authentication solutions for businesses.
23	17-04-19	KudiGo	Ghana	Seed	0.45	0.45	Founders Factory Africa	Payments acceptance devices + Software	Offers a mobile based integrated retail, accounting, payments and analytics engine for informal consumer retailers in Africa.
24	18-04-19	Bankin	France	B	22.60	31.70		Payments acceptance devices + Software	Offers a mobile banking app that enables users to get an overview on all their accounts, transfer money, savings and expense management.
25	19-04-19	ZenGo	Israel	Venture	4.00	4.00	Samsung Electronics	Alternative payment systems	Develops and provide crypto wallet.
26	23-04-19	Payrix	USA	Venture	22.00	22.00	Blue Star Innovation Partners	Payments acceptance devices + Software	Provides marketplaces, SaaS businesses, and ISOs white-label solutions for payment facilitation.
27	23-04-19	Alt Thirty Six	USA	A	10.00	11.60		Payments acceptance devices + Software	Offers a digital payment platform that connects cannabis merchants, vendors, suppliers, and consumers by setting transactions in real time on the dash blockchain.
28	24-04-19	Enkash	India	A	3.00	3.00	Axilor Ventures	Payments acceptance devices + Software	Offers software and platform to send and accept online payments, initiate financial discounts, bring cost efficiencies.
29	24-04-19	Ledger	France	C	2.90	88.00	Samsung Electronics	Security	Develops security and infrastructure solutions for cryptocurrencies as well as blockchain applications for individuals and companies.
30	26-04-19	Core State Holdings, Corp (PTPwallet)	USA	Venture	1.00	1.00		Alternative payment systems	Offers PTPWallet, a platform that which allows users to send and receive cryptocurrencies through QR Code, addresses, Email, SMS, and social network.
31	29-04-19	SWIKLY	France	A	1.68	1.68		Payments acceptance devices + Software	Provides third party online payment system that allows users to secure reservations or security deposits via a credit or debit card imprint.
32	29-04-19	Chezhubang (Beijing) Technology Co., Ltd.	China	B	40.86	43.80	GSR United Capital	Alternative payment systems	Offers an app that helps drivers locate gas stations and pay cardless for fuel.

Venture Capital

	Date announced	Target	Country	Round	Volume (US\$m)	Funding (US\$m)	Investor(s)	Segment	Description
33	30-04-19	DivvyPay, Inc.	USA	C	200.00	502.50	New Enterprise Associates	Payments acceptance devices + Software	Provides software solutions which allows payment by Virtual cards, send & request funds and pay bills.
34	30-04-19	Masabi	UK	C	20.00	40.80	Smedvig Capital	Payments acceptance devices + Software	Offers mobile ticketing and payments.
35	30-04-19	Ordo	UK	D	64.64	64.64	Nationwide	Payments acceptance devices + Software	Offers reliable and secure one click payment platform.
36	01-05-19	Matic-Network	India	Venture				Alternative payment systems	Offers a network that enables users to pay and transfer cryptographic tokens. Its products include Matic wallet that helps users to manage their ethereum accounts, wallets, and contracts.
37	02-05-19	Checkout	UK	A	230.00	230.00	Insight Venture Partners	Payments acceptance devices + Software	Provides of online payment solutions.
38	02-05-19	NomismaNomisma Mobile Solutions Pvt. Ltd.	India	A	7.20	7.35		Payments acceptance devices + Software	Develops digital payment solutions and provides financial loans, software and hardware based payment solution, point of sale solution, and payment processing.
39	02-05-19	QuantaVerse	USA	Debt		2.75		Data analytics	Develops a customer data analytics platform for banks. The company also provides users with revenue growth solutions that deliver insights about their customers to enhance their ability to inform and influence their purchase or usage of their product and service offerings.
40	06-05-19	Clip	Mexico	C	100.00	101.30	SoftBank	Payments acceptance devices + Software	Allows businesses to easily accept all electronic payments methods.
41	06-05-19	Thunes	Singapore	A	10.00	10.00	GGV Capital	Processing	Offers P2P remittance processing, corporate mass payouts and digital payment services.
42	06-05-19	Payment Reservations	USA	Venture	5.00	5.00		Security	Provides payment fraud prevention solution for businesses and agents.
43	07-05-19	Tu Identidad	Mexico	Venture	0.60	0.60		Security	Offers an integral solution to validate the identity of customers, suppliers, staff, users and business partners.
44	08-05-19	PayPay Corporation	Japan	Venture	417.61	417.61	SoftBank Group Corp.	Alternative payment systems	Provides barcode-based smartphone payment services that allow users to store money from a bank account in their PayPay wallet and make payments.
45	08-05-19	TransferGo	UK	B	3.40	44.40	Vostok Emerging Finance	Money transfer	Provides digital international money transfers for migrants and businesses.
46	09-05-19	Twisto	Czech Republic	B	15.68	38.63	Finch Capital	Alternative payment systems	Provides app that enables customers to pay for their online purchases with just one click.

Venture Capital

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47	09-05-19	Chipper Cash	USA	Seed	2.40	2.40	Deciens Capital	Money transfer	Offers instant cross-border mobile money transfers in Africa as easy as sending a text message.
48	10-05-19	Payitup	Zimbabwe	A	13.00	13.00	Thawer Capital Management	Payments acceptance devices + Software	Provides services as payment provider for MultiChoice's DSTv service.
49	13-05-19	Global PayEx	India	Venture			JPMorgan Chase & Co.	Payments acceptance devices + Software	Develops a cloud based platform for business payment solutions.
50	14-05-19	CarePay	Netherlands	A	44.90	44.90		Payments acceptance devices + Software	CarePay has developed a health payment platform that operates on a mobile phone. Users can save, receive and spend money, but the funds can only be used to pay for healthcare.
51	14-05-19	Pleo	Denmark	B	56.00	78.30	Stripes Group	Alternative payment systems	Offers smart payment cards for employees for them to buy things they need for work, while keeping the companies in control of spending.
52	15-05-19	4stop	Germany	A	2.47	2.47	Ventech	Security	Provides global KYC, compliance and anti-fraud solutions, allowing businesses to grow their business around the globe with confidence.
53	15-05-19	KOHO	Canada	B	31.25	38.74	Portag3 Ventures	Issuing	Provides customers with a prepaid, reloadable Visa backed debit card, and a mobile application that gives users tools and suggestions to manage their spending.
54	15-05-19	VGI Global Media Public Company Limited	Thailand	N/D	1.36	1.36		Payments acceptance devices + Software	Provides electronic payment services for mass transit system and retail stores.
55	15-05-19	Guangdong Utrust Investment Holdings Co., Ltd.	China	A			Poly Capital	Payments acceptance devices + Software	Provides cryptocurrency payment solution which offer instant transactions, buyer protection and crypto-to-cash settlements.
56	16-05-19	MatchMove Pay	Singapore	Venture		30.00	NTT DOCOMO Ventures	Payments acceptance devices + Software	Offers a platform that empowers B2B businesses and their customers to spend both online and offline, via instantly issued prepaid cards on major card networks.
57	16-05-19	YouTrip	Singapore	Seed	25.50	25.50	Insignia Ventures Partners	Alternative payment systems	Provides a multi-currency travel wallet with a prepaid Mastercard for travelers to pay overseas in various currencies.
58	16-05-19	Wuhan Yibaotong Network Technology Co., Ltd.	China	Venture	1.45	1.45	Beijing Yuanlong Yato Culture Dissemination Co.. Ltd.	Alternative payment systems	Develops and designs software as a service (SaaS) platform for financial industry. The company offers payment solutions as one of its services.
59	20-05-19	Modulr	UK	Venture	17.80	31.15	Frog Capital	Payments acceptance devices + Software	Provides digital payment services to businesses
60	21-05-19	TransferWise	UK	N/D	292.00	687.52	Vitruvian Partners	Money transfer	Provides international money transfer services.

Venture Capital

	Date announced	Target	Country	Round	Volume (US\$m)	Funding (US\$m)	Investor(s)	Segment	Description
61	21-05-19	Marqeta	USA	E	260.00	376.30	Coatue Management	Payments acceptance devices + Software	Develops platform for innovators who want a simplified way of managing payment programs so they can power new modes of commerce.
62	22-05-19	Niki.ai	India	Debt		2.44		Alternative payment systems	Offers AI-based personal assistant which helps you Pay bills, book tickets, etc.
63	24-05-19	Zero	USA	A	20.00	47.00	New Enterprise Associates	Issuing	Offers a modern banking experience that combines debit-style functionality with credit card rewards.
64	25-05-19	LumoXchange	USA	Debt		0.55		Money transfer	Offers currency exchange marketplace for cross border peer-to-peer payments.
65	28-05-19	BeePay	China	Seed			Linear Venture	Money transfer	Offers cross-border payment and remittance services.
66	28-05-19	Splitit	USA	N/D	20.77	22.07		Payments acceptance devices + Software	Provides global payment solution enabling customers to pay for purchases by splitting the cost into interest-free monthly payments.
67	28-05-19	Stamp Italy Srl	Italy	Venture	1.90	1.90	b-to-v Partners AG	Payments acceptance devices + Software	Develops payments application which allows non-European visitors to make VAT-exempt purchases in partnered stores.
68	29-05-19	Cherri Tech, Inc.	Taiwan	Venture				Payments acceptance devices + Software	Develops and sells TapPay, a payment gateway which offers products such as software for e-commerce authentication and a software that provides payment token service.
69	29-05-19	Roger.ai	Denmark	A	7.40	7.40	QED Investors	Payments acceptance devices + Software	Provides a bill pay and accounts payable automation for SMBs and accountants.
70	29-05-19	Yapily	UK	Seed	5.40	5.40	LocalGlobe	Payments acceptance devices + Software	Offers an open banking-based API platform which enable instant payments directly from bank accounts and bypass payment fees.
71	30-05-19	Dashlane	USA	D	110.00	162.40	Sequoia Capital	Security	Provides password management and secure digital wallet services.
72	03-06-19	Mindgate	India	Venture			ACI Worldwide	Payments acceptance devices + Software	Develops digital payments and collections platform
73	03-06-19	WorldRemit	UK	D	175.00	362.70	TCV	Money transfer	Offers a money transfer service that helps migrants send money.
74	03-06-19	Finality International	UK	A	63.13	63.13		Payments acceptance devices + Software	Provides a digital cash system that uses blockchain technology to settle financial transactions.
75	04-06-19	Tink	Sweden	N/D	11.20	105.60	PayPal	Payments acceptance devices + Software	Offers products such as Account Aggregation, Payment Initiation, Data Enrichment and Personal Finance Management.
76	04-06-19	BharatPe	India	B	75.00	92.50	Insight Partners	Alternative payment systems	Offers a QR code-based payment app for offline retailers and businesses.

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	Date announced	Target	Country	Round	Volume (US\$m)	Funding (US\$m)	Investor(s)	Segment	Description
77	04-06-19	TrueLayer	UK	C	35.00	46.80	Tencent Holdings	Payments acceptance devices + Software	Provides a platform to build financial apps that connect to bank data, verify accounts, and access transactions in real time.
78	05-06-19	Softlab9 Software Solutions Inc.	Canada	N/D	0.75	5.71		Couponing or Loyalty	Provides an App which helps users collect the coins then exchange them for real cash rewards.
79	06-06-19	PaySend	UK	B	5.59	25.60	Plug and Play	Money transfer	Provides platform which enables users to send and receive money worldwide.
80	06-06-19	SynapseFI	USA	B	33.00	50.00	Andreessen Horowitz	Payments acceptance devices + Software	Develops and provides software solutions which include payment solutions and card issuance etc.
81	06-06-19	Amazon Pay	India	N/D	65.04	293.39	Amazon Corporate Holdings Pvt. Ltd., Amazon.com.incs Limited	Alternative payment systems	Allows users to make online payment transactions.
82	07-06-19	Orails	USA	N/D	0.87	7.00		Processing	Provides processing services to traditional issuers as well as new payment service providers.
83	10-06-19	Alkami Technology	USA	E	55.00	228.40	MissionOG	Payments acceptance devices + Software	Develops and delivers digital banking solutions such as money transfers and bill pay with P2P, card controls, rewards, shared access, PFM, analytics etc.
84	11-06-19	Brex	USA	C	100.00	282.10	Kleiner Perkins	Issuing	Provides and issues corporate credit card.
85	11-06-19	SpotOn	USA	Venture	40.00	60.00	Franklin Templeton Investments	Payments acceptance devices + Software	Provides POS terminals which accept payments from cards, mobile and gift cards.
86	11-06-19	Verrency	Australia	A	6.97	14.60		Payments acceptance devices + Software	Provides an Open-API based 'Innovation-as-a-Service' platform to card issuers.
87	13-06-19	Bitrefill	USA	Seed	2.00	2.00	Coin Ninja	Alternative payment systems	Helps in purchasing eGifts cards & pay mobile bills with Bitcoin and other cryptocurrencies.
88	13-06-19	Glint Pay	UK	Venture	6.36	18.82		Alternative payment systems	Provides multi-currency account and debit card that enables physical gold to make instant payments using a debit Mastercard.
89	13-06-19	GroundSwell SPC	USA	Debt				Issuing	Provides debit cards as a service to their customers at lesser transaction costs, redirecting the costs saved on transactions to non-profit organizations as donations.
90	13-06-19	Payveris	USA	D	7.00	21.20	Mosaik Partners	Money transfer	Operates as a cloud-based digital payment and money transfer platform.
91	18-06-19	MoneyGram International	USA	N/D	30.00	30.00	Ripple	Money transfer	Operates as a money transfer company to securely and quickly send or receive money.
92	18-06-19	Razorpay	India	C	75.00	106.70	Sequoia Capital India	Processing	Allows businesses to accept, process and disburse payments with its product suite.

Venture Capital

	Date announced	Target	Country	Round	Volume (US\$m)	Funding (US\$m)	Investor(s)	Segment	Description
93	18-06-19	token	USA	B	16.50	35.00		Payments acceptance devices + Software	Develops and provides banks-hosted payment system.
94	19-06-19	POSaBIT Systems Corporation	USA	N/D	3.74	12.69		Processing	Offers point of sales systems and blockchain enabled payment processing services.
95	25-06-19	Chosen Payments	USA	Venture	4.00	4.00	Aurora Payments	Processing	Offers payment processing services for retail, restaurant, and e-commerce merchants.
96	25-06-19	Ozow (Pty) Ltd/I-Pay	South Africa	A		0.70	Kalon Venture Partners	Processing	Provides online payment gateway and instant EFT payment services.
97	25-06-19	Open Financial Technologies Pvt Ltd	India	B	30.00	37.40	Tiger Global Management	Payments acceptance devices + Software	Develops and offers an online platform for banking and intercompany settlement and payment processing services.
98	25-06-19	Car IQ	USA	A	5.00	6.30	Quest Venture Partners	Alternative payment systems	Provides a payment platform for cars that enables autonomous validation and payment for their services.
99	25-06-19	FunJumping Inc.	China	Venture	10.00			Alternative payment systems	Provides payments and gameplay and also provides a user-friendly wallet.
100	25-06-19	MX Technologies	USA	B	100.00	175.00	Battery Ventures	Data analytics	Offers FinTechs and all financial institutions with the ability for aggregating, enhancing, analyzing, presenting and acting on financial data
101	27-06-19	WeGift	UK	A	5.07	5.07	Stride.VC	Coupons or Loyalty	Offers a platform for real-time on demand digital incentives, payouts and rewards.
102	27-06-19	Prepaid2cash Holdings, Inc.	USA	Venture			Alabama Futures Fund	Payments acceptance devices + Software	Provides redemption of network branded (Visa, MasterCard, Amex, Discover) prepaid cards. Its web-based service allows users to receive payment by direct deposit or mailed check.
103	27-06-19	ConnexPay LLC	USA	A	7.00	7.00	BIP Capital	Payments acceptance devices + Software	Develops payment acceptance and issuance solution for travel and e-commerce markets.
104	27-06-19	Grab	Singapore	H	300.00	9100.00	Invesco	Alternative payment systems	Offers mobile wallet payment solution under its financial services division. It provides transportation, logistics and financial services as a whole.
105	29-06-19	loyalBe Ltd	Ireland	Seed			techstart NI	Coupons or Loyalty	Offers a marketing platform that improves customer engagement between retailers and their customers and helps earn reward points.

EY Global contacts



Jan Bellens
EY Global Sector Leader,
Banking & Capital Markets,
Tel: +65 932 961 92
jan.bellens@sg.ey.com



Kai-Christian Claus
EY Global Payments Leader,
EY Innovalue
Germany, Hamburg
Tel: +49 163 413 1363
kai-christian.claus@ey-innovalue.de

EY EMEIA contacts



Hamish Thomas
EY EMEIA Payments Advisory Leader,
London
Tel: +44 796 717 6593
hthomas@uk.ey.com



Andreas Habersetzer
EY EMEIA Payments Transaction
Advisory Leader, London
Tel: +44 795 735 8698
ahabersetzer@uk.ey.com



Christopher Schmitz
Partner,
Germany, Frankfurt
Tel: +49 160 939 135 45
christopher.schmitz@de.ey.com



Olivier Perrin
Associate Partner,
France, Paris
Tel: +33 1 46 93 70 56
olivier.perrin@fr.ey.com



Jeroen van der Kroft
Executive Director,
Netherlands, Amsterdam
Tel: +31 621 251 175
jeroen.van.der.kroft@nl.ey.com



Gael Denis
Partner,
Luxembourg
Tel: +35 269 183 0782
gael.denis@lu.ey.com



Karin Sancho
Partner,
Sweden, Stockholm
Tel: +46 703 189 767
karin.sancho@se.ey.com



David Frias Blanco
Partner,
Spain, Madrid
Tel: +34 660 815 863
david.friasblanco@es.ey.com



Dhaval Madlani
Executive Director,
India, Mumbai
Tel: +91 987 020 3606
dhaval.madlani@in.ey.com

EY Americas contacts



Jennifer Lucas
EY Americas Payments Advisory Leader,
United States, Charlotte
Tel: +1 704 277 3782
jennifer.m.lucas@ey.com



Sara Elinson
EY Americas Payments Transaction
Advisory Leader, New York
Tel: +1 718 915 4269
sara.elinson@ey.com



Edgar Barbosa
Senior Manager,
Canada, Toronto
Tel: +1 416 799 2646
edgar.barbosa@ca.ey.com



Sean Viergutz
EY Wholesale Banking Technology Head,
Atlanta
Tel: +1 404 817 5537
sean.s.viergutz@ey.com



Gustavo Jurado
Partner,
Mexico, Mexico City
Tel: +52 (55) 5283 1447
gustavo.jurado@mx.ey.com



Ivan Habe
Executive Director,
Brazil, São Paulo
Tel: +55 11 96900 5012
ivan.habe@br.ey.com

EY Asia-Pacific contacts



James Lloyd
EY Asia-Pacific Payments Leader,
Hong Kong
Tel: +852 9666 4747
james.lloyd@hk.ey.com



Robert Colwell
Partner,
Australia, Sydney
Tel: +61 449 144 577
robert.colwell@au.ey.com



Joongshik Wang
Partner,
Singapore
Tel: +65 820 156 04
joongshik.wang@sg.ey.com

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