



The Different Times

Making waves: charting a path for the future of payments

Michael Miebach
President and CEO-elect of Mastercard

Data-driven decision-making for 2021 and beyond

Raj Seshadri
President of Data & Services at Mastercard

Like many people, I'm looking forward to 2021. Undoubtedly, this year has been one of the hardest in every aspect of life. We've all had to adapt to new and increasingly digital ways of working, living, educating, shopping, recreating and travelling. This accelerated digitisation means that we are also generating increasingly larger quantities and diverse types of data as we complete the tasks essential to our daily lives.

COVID-19 has required businesses around the world to adjust to these new customer needs and shopping patterns. Some have, unfortunately, struggled for a wide range of understandable reasons, feeling their only course was to get rid of product or shut down operations entirely. Others have been able to find ways forward – showing true creativity in the process and demonstrating reinforced commitment as they focus on helping customers get through this uncertain time. But, in some ways, this perseverance should come as no surprise. Many businesses have shown incredible agility in recent years to meet rapidly changing consumer needs and market conditions.

As we look toward next year – and the challenges to business and society it will bring – the desire on the part of organisations to turn new and growing datasets into insights desperately needed to enable the innovation required to overcome those challenges will only intensify. These insights will guide businesses as they make incremental steps to recovery – and help all of us responsibly navigate our way through a still uncertain future.

Strategic decision-making in 2021 will require a deeper understanding of global economic and political changes and how they impact business priorities and customer behaviours. It will also force businesses to deal with a great deal of risk. But data-driven innovation is all about enabling the products, services and solutions of the future – while balancing the scale of current and future risks. Experimenting with ideas and quickly making decisions based on learnings will be key.

■ Discover three ways to embrace data-driven innovation in 2021 on the [Mastercard Content Exchange](#)



The waves of change are surging once again.

The coronavirus pandemic, and the political, social, economic and cultural inequalities it has brought to light, has the potential to fundamentally change the way we live, work and do business. Fighting the tide is a sure way to be drowned, but we shouldn't sit back and let ourselves get carried away by it either.

As we've seen era after era, adversity often necessitates innovation. The twin challenges of preventing the spread of the coronavirus while keeping businesses open and the economy moving has resulted in massive growth of contactless payments and eCommerce. We need to make these habits stick.

So how do we capitalise on the opportunity to drive meaningful change from this crisis and beyond? Well, certainly not alone. It requires input, collaboration and partnership among existing players and new ones: to accelerate the digital shift; to innovate beyond the transaction; to set the new standard in trust and responsibility, and to build a more inclusive digital economy.

Let's make the waves of change work for us and chart a path for the future of payments together.

continued on page 6

Dear reader,

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When we published the first issue of our digital newspaper, *The Different Times*, the novel coronavirus was still – well, novel. We were still getting to grips with remote ways of working, distancing from our loved ones, and sheltering in our homes. We didn't know how long it would last, or how widely its impact would be felt. But I don't think any of us quite expected to be publishing a second issue under much the same circumstances.

The world, and the way we live, work and do business in it, have been profoundly reshaped in the past few months. More of us are shopping online more often, and we're increasingly adopting – and preferring – contactless means of payment. But many workers and businesses need greater flexibility and control over their finances, and new criminal threats have emerged.

We still don't know when the worst will be over, nor when we'll return to normality – if normal at all. So we invite you, once again, to enjoy these stories from across the Mastercard business – and regions around the world – in different times.

In these pages, we hero the innovators of today that are pioneering the innovations of tomorrow. We share stories of how data is being used for good, how digital technologies are driving more inclusive societies, and how ecosystem collaboration is creating a more sustainable future for everyone. Above all, we offer a message of hope and resilience. Together, we will continue to forge a path through and beyond this crisis.

In October and November 2020, we'll take to the virtual stage at Sibos, The Dublin Tech Summit and EBADay; you can join us and our partners around the virtual table in our series of InConversation webinars; you can even catch us in WIRED. Visit mastercard.com/startwithpeople to learn more.

Join us, and share your own stories of the partnerships and initiatives that are enabling and safeguarding the digital economy for people, businesses and governments around the world.

Because when we start with people, we Start Something Priceless.

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Supporting small-business in a COVID-19 economy

Patricia Reynolds, Hakan Eroglu and Brian Wolther at Mastercard

Earlier this year, we published a report entitled 'A Small Business Triangle: Instant, Open, Intelligent'. It showed how the convergence of real-time payments, open banking and artificial intelligence could help small businesses with cash flow issues.

Then the coronavirus hit. And small businesses are currently bearing the brunt. The report couldn't have been timelier or more pertinent.

We've since caught up with three Mastercard Advisors who contributed to the original report, each representing different sides of the triangle. They share their thoughts on how to alleviate the economic impact of COVID-19 on small businesses.

Difficult decisions

Patricia "Patti" Reynolds, real-time payment specialist, notes a subtle nuance: "It's not the concept of a downturn that's unprecedented. It's being subjected to the vagaries of a pandemic that's unheralded." She's referring to the abruptness of the impact and the way it's affected online and offline retailers across various sectors differently. "A major retailer selling daily essentials with a large ecommerce operation is going to fare much better than a small business with a niche offering and a scant online presence," she adds.

If small businesses are facing difficult decisions, so are their banks. "Many of their small-business customers have suddenly become high risk through an event that was beyond their control," says Hakan Eroglu, open-banking specialist. He cautions that "it would be callous, and not in anyone's long-term interest, for banks just to turn their backs on them."

The problem is that financial bailouts, whether credit lines from banks or government disbursements, are only short-term solutions. "Many small businesses don't even qualify for PPP loans" laments Patti in reference to the US government's payment protection program. "That's where this convergence of technology – real-time payments, open banking and artificial intelligence – can help," offers Brian.

Virtuous circles

Brian Wolther, artificial intelligence (AI) specialist, isn't particularly phased by the suggestion that the small-business triangle was written at a time when banks weren't inundated with desperate calls from struggling small businesses and when those small businesses were more able to invest in new technology. "Banks have every incentive

to keep their customers up and running. Going down the debt collection route is in neither parties' best interests. Small businesses are looking for a lifeline and banks want to give it to them," he says.

Still, Brian is realistic: "Financial technology won't solve the underlying problem. It can't fix the socioeconomic situation. But it can help small businesses ride this out for as long as possible." "We're fortunate that technology providers have reached a sufficient level of development that banks can offer this recourse through them," adds Hakan in support.

Attempting to allay any doubts, Hakan elucidates further with a description of what amounts to a virtuous circle: "It starts with small businesses turning to their banks for help. The banks then look to their technology providers and fintech partners for solutions. Their technology solutions can alleviate the pressure on small businesses through this triangular relationship of real-time payments, open banking and AI." The net result is that the banks, having been able to provide solutions, can be far more comfortable with the level of risk posed by their small business clients.

Technological convergence

The virtuous circle described by Hakan has multiple immediate benefits to small businesses. "At a minimum, RTPs can really help small businesses with cash flow efficiency through faster payments," affirms Patti. She's referring to how the ability to make payments as close as possible to due dates, without fear of incurring late penalties, and the ability to receive payments instantly can have big impacts on small businesses' bottom lines.

"And it's open banking that's really enabled real-time payments to function at their full potential," adds Hakan.

"Or, rather, real-time payments have helped open banking find its true calling," retorts Patti.

It's notable that open banking really came into its own through RTPs, and most particularly for the benefit of small-business customers. That's different from a couple of years ago when individual consumers were anticipated to be as

big, if not greater, beneficiaries. Transaction initiation is catching up with data access as the main role for open banking. Hakan describes their combined major benefits as "consolidated views of cash inflows and outflows, easier back-end reconciliation, and efficiently scheduled payments."

Eking it out

"On top of real-time payments and open banking, we have AI as the third piece of the triangle," Brian chimes in, clarifying that "otherwise the masses of data can become too unwieldy." Patti notes that "the advent of enriched transaction data," which includes relevant data beyond what is needed for a basic transaction, "makes the role of AI even more important." Brian and Patti are talking about AI's ability to automatically extract and analyse data. The process generates insights to improve liquidity management and, crucially for small businesses today, accounts payable.

Hakan summarises the small-business triangle accordingly: "AI allows complete automation so real-time payments can run more smoothly in an open-banking environment." "And more safely," adds Brian, qualifying that "real-time payments need real-time security." Cybercrime has spiked as a result of businesses being reliant on ecommerce in the wake of COVID-19. And, although big businesses are more popular targets, small businesses have always been the most vulnerable with limited resources to defend against cyberattacks.

"Although the small-business triangle helps banks conduct better and more favourable credit decisioning for small businesses," notes Patti, "the triangle is really about helping small businesses make the best use of the money they already have or that is owed to them." Technology that enables small businesses to eke out every penny and put each one to optimal use is always going to be recommended for competitiveness. But, in today's unstable environment, it goes beyond just competitiveness.

"It might be the only realistic means of survival," cautions Patti.

■ Read the full report, 'A Small Business Triangle: Instant, Open, Intelligent'

Driving the bill payment transformation with Maximus success

Joe Proto
CEO of Transactis, a Mastercard company



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Customer success is a guiding force of Transactis' business and mission – our products, support strategy and customer relationships are built with this focus in mind. For us, customer success is defined not only by supporting our distributing partners, but also their customers – the businesses that use our digital billing and payment solutions. When Bank of the West, one of our bank partners, was tapped by a new client to save an at-risk project, they knew they could rely on Transactis, a Mastercard company, to complete the project and support new opportunities.

Maximus, one of the world's largest providers of government services, had spent countless hours planning, preparing and executing a plan to provide payment services for a new health programme on behalf of a major state agency. With a tight deadline, there was no room for error. But at the eleventh hour, its existing payments partner introduced last minute technical changes and higher costs that jeopardised the project and threatened Maximus' relationship with the state. Bank of the West was tapped to step in and save the project with its billing and payment offering, which is powered by Transactis.

The payment project was a massive business opportunity – the state's programme was designed to service hundreds of thousands of people with online and automated phone payments in multiple languages; it required the migration of current customer data to the new system. The typical implementation time for a project like this is eight to 12 weeks, but with the change in direction, there were just four weeks left to complete it. Missing the deadline would mean a gap in service that would impact the lives of people accessing important government services, and the loss of Maximus' relationship with the state agency.

With a shared vision, Bank of the West and Transactis collaborated on an ambitious project plan that would allow Maximus to meet its deadline. The entire migration and onboarding were completed in one month allowing the new health programme to launch to massive success. With this strategy, Maximus has seen digital payments from this project continue to rise each month, with the added benefit of high rate of customer paper opt-out. This has saved the company \$1 per payment – tens of thousands of dollars – in bill run fees each month.

"This was a heroic effort not just by Bank of the West, but also our partner, Transactis. This tight timeframe required many individuals to be 100 percent dedicated to the effort," says Micki Burciaga, vice president Product Manager at Bank of the West

The efforts to complete this project and its widespread success are a testament to the value of approaching challenges and opportunities with a customer-centric view. Maximus has strengthened its relationship with the state agency, and continues to explore new opportunities for digital payments with Bank of the West and Transactis. Through our work together, Bank of the West has become one of our fastest growing distributing partners that continues to bring in new business opportunities we win together.

■ To learn more about Mastercard Bill Pay, which is enabled in part by Transactis, and how we're transforming the bill presentation and payment experience, visit vocalink.com/billpay



Enabling Kenyan micro-merchants to 'fill up their stores'

Chao Mwaluma and Karolina Szudrzynska at Mastercard

There are somewhere between 365 and 445 million micro-, small and medium-sized enterprises (SMEs) in emerging economies. They are the backbone of local economies, yet too many small business owners remain disconnected from the vital networks and resources they need to thrive.

When we speak to small shop owners around the world, we learn that access to affordable credit is one of their biggest barriers to growth, especially for women-owned SMEs. According to a survey conducted in 2017, 70 percent of women business owners did not have access to finance – representing a \$300 billion credit gap each year.

But new partnerships and initiatives are helping to close that gap. Mastercard Track™ Micro Credit Program is a global, inclusive credit ecosystem for small retailers that helps them overcome cash constraints and enables them to access short-term credit. The impact of such programmes can be transformational for small shopkeepers, their families, and their wider communities.

In Kenya, Mastercard partnered with Unilever to create Jaza Duka ('fill up your store') as part of Mastercard's Track™ Micro Credit Program. The initiative combines distribution data from Unilever and analysis by Mastercard on how much inventory a store has bought from Unilever over time to provide a micro-credit eligibility recommendation to KCB Bank Ltd.. The bank uses this to assess a retailer's credit worthiness and extend formal credit for stock purchases. It overcomes the problem that banks usually require formal credit history or collateral that these entrepreneurs generally do not have, which can leave them with no option but to borrow from informal lenders at high interest rates and can trap them in a cycle of debt.

As well as access to micro-credit, the initiative also provides store owners with training to help them manage their finances, inventory and forward planning for supply against demand. The entrepreneurs are also being trained on marketing tools and techniques to help sell their products and subsequently increase their opportunity to grow faster.

More than 20,000 Kenyan duka (store) owners are already registered. Local people also benefit from having quicker, more reliable access to the products they need most to support their families.

Lucy Njoki Njoroge runs a small duka in Ngong' on the outskirts of Nairobi. "People here call me Mama Ciku," she says, from 'wanjiku', meaning 'one who is hard working'. "I've had this business for around ten years now. I sell household goods like Omo, BlueBand, sugar, and soaps. I get my goods from Unilever."

She has been able to access credit through the Jaza Duka program to grow her business and create a more prosperous future for her and her family. "I get goods on credit and I am able to pay back later." The amount of money she is able to borrow increases as she proves her credit worthiness over time. "I started with a borrowing limit of 1,500 Kenya Shillings, now my limit is at 6,000 Kenya Shillings."

Encouraged by the support of the programme, Lucy has high aspirations for the business and her family's future: "I hope to expand my shop so it can be bigger than it is now. I want my children to have a good education; I want them to follow their dreams."

"I can say Jaza Duka has helped me a lot. I have money for my house and my children's school fees."

■ To learn more about Mastercard's efforts to include [One Billion people in the digital economy, including 50 million micro-merchants and SMEs](#), visit the [Mastercard Content Exchange](#)



Continued:

Making waves: charting a path for the future of payments

Accelerating the digital shift

For us, innovation starts – always – with people: with the needs of our customers and with the needs of the consumers, businesses, organisations and financial institutions that send and receive money via our network, and those that don't.

When you start with people, you understand what's needed now and what's needed next. You see the pain points and the possibilities – how people are transacting and how they want to transact. What we're seeing now is massive encouragement for our multi-rail strategy: our expansion into account-based (also known as automated clearing house, or ACH) payments and associated services, spearheaded by our New Payment Platforms division.

Our goal is to expand our reach worldwide and into places that card products haven't been – and may never go. Multi-rail is about enabling a different conversation; it's about connecting more payers with more receivers in more ways; it's about allowing people and businesses to access and use their money how they want, using any device – or no device.

Innovating beyond the transaction

One thing we've learnt from the coronavirus pandemic is that the financial system and financial products have been too rigid for too long globally. The new world requires a new way of thinking about how people, businesses, and governments interact and how they transact.

Those needs increasingly reach beyond the payment transaction itself – into realms such as security and identity. So, we're embedding enhanced analytics and artificial intelligence across our network to continually screen for risks and prevent catastrophic fraud in its tracks. And we're continuing to put people in control of their information, providing choice and delivering a universal and consistent experience – setting a new standard in trust and responsibility.

We're also leveraging insights to enable foresight, helping our customers and the people and organisations they serve, to manage risk, improve efficiencies, and grow resilience. These peripheral services are paramount to improving the sustainability of digital economies in an uncertain world.

Building a more inclusive digital economy

I'm proud to be part of a company and community of collaborators that are transforming how the world pays and gets paid. We're driving innovation across the digital ecosystem – not simply reacting to it. And as we innovate beyond cards and beyond the transaction, the future opportunity lies in widening access to the digital economy for everyone.

Our potential in the payments industry was redefined over the past decade as new technologies brought people, players and possibilities together. We're continuing to enable and secure the movement of money and data between people, businesses, governments and other organisations around the world, however they choose to transact.

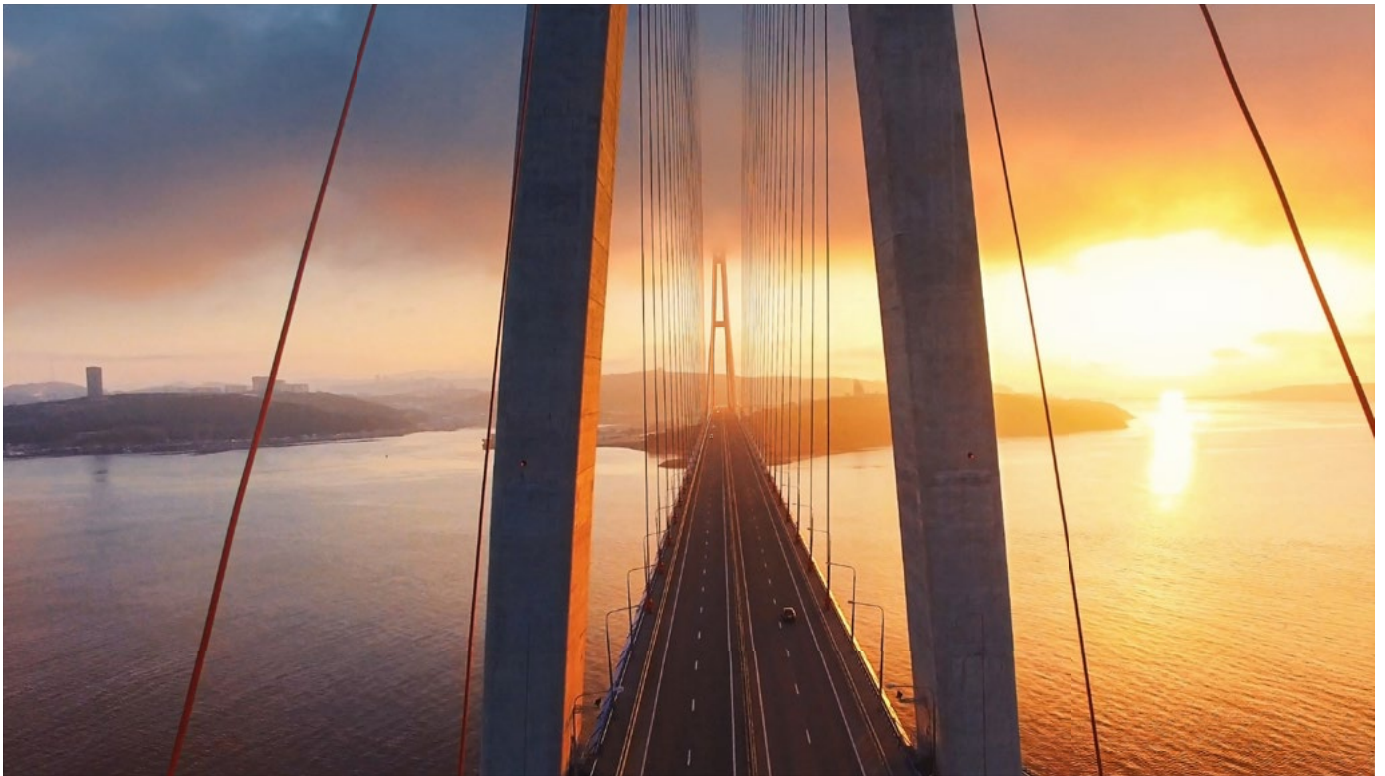
We know that a better future of payments won't be realised in silos – or in one payment rail or another – but in breaking them down and freeing their contents to be more broadly useful. Nor will it be realised in competition with disruptors, but in embracing them.

So, we welcome you to join us; to collaborate across the industry and unlock shared opportunity. Together we will accelerate the digital shift; innovate beyond the transaction; set the new standard in trust and responsibility, and to build a more inclusive digital economy – for everyone.

Let's make waves together.



Doing well by doing good



Sustainability is embedded in everything we do at Mastercard – who we are as a company, how we drive forward our business, and how we support the communities and environment around us.

"If we want to keep growing and thriving – as individuals, corporations or countries – we have to do better... We can put things back the way they were before, or we can work together to rebuild a better, stronger, more resilient and more inclusive digital economy, one that benefits everyone, everywhere."

– Ajay Banga, CEO of Mastercard

Our latest sustainability report, for 2019, outlines our progress towards building a more inclusive and sustainable digital economy. Our impact and commitment align to four areas of focus and highlights of the report include:

- **Inclusive growth:** We achieved our goal to bring 500 million individuals into the digital economy by 2020 and raised the commitment to connect a total of 1 billion people and 50 million micro and small businesses worldwide by 2025.
- **Our people and culture:** Approximately 39 percent of employees supported more than 3,400 charities through monetary donations or by contributing more than 73,000 volunteer hours to support these charities.
- **Environmental stewardship:** We're first in the payments industry to receive approval from the Science Based Targets initiative (SBTi) for our updated emissions target, which aligns to a 1.5-degree Celsius climate trajectory.
- **Ethical and responsible standards:** We launched the Global Data Responsibility Imperative, an effort to ensure all of our data practices respect our customers, individuals and all constituents.

■ [Download the Mastercard Corporate Sustainability Report 2019 from the Mastercard Content Exchange](#)

The evolution of open banking

Jim Wadsworth, senior vice president for open banking at Mastercard
Tony Craddock, director general of the Emerging Payments Association

The trend towards open banking – and open data – shows no signs of slowing down. We invited *Tony Craddock*, director general of the Emerging Payments Association, and *Jim Wadsworth*, senior vice president for open banking at Mastercard, to share their thoughts on how open banking has and will continue to evolve.

■ Read the full [discussion between Tony and Jim at Vocalink Stories](#)

How is open banking progressing around the world?

Jim Wadsworth, Mastercard: In Europe and the UK, it's growing rapidly. June 2020 recorded around 425 million transactions through UK banks' APIs, most of which were for account information services. But we're also starting to see the first few payments use cases emerging as well.

Tony Craddock, EPA: When you start looking at open banking around the world, the underlying drivers are slightly different in each country.

In Mexico for example, it's designed to enable the high percentage of people who are under-banked to gain access to financial services; in the UK and Europe it's to encourage competition between providers, and in places such as Hong Kong and Bahrain it's to help establish them as financial centres of excellence to attract capital, entrepreneurs and other service providers to benefit the economy.

In light of the different drivers, how do the definitions of open banking differ?

Jim: The European regulatory model, which is often used as a baseline for other countries,

is centered around payments accounts. The Australian model, by contrast, is more along the lines of what we might term 'open finance': savings accounts, investment accounts, pension accounts and so on are all in scope.

Tony: If we can get to a point at which there is an open exchange of data between banking and insurance, pensions, property, utilities or telecoms, it opens up extraordinary opportunities. That's something from which both the industry and society will benefit.

So, where are we going next?

Jim: Open banking is a platform for innovation. As it evolves, it'll be driven by the age-old disciplines of understanding where there are unmet customer needs and fulfilling them brilliantly.

Tony: It'll be fascinating to see what the consequences of the pandemic will be over a three to five-year timeframe.

Jim: I think the normalisation of digital technologies will ultimately help drive adoption. We'll see which services thrive and which ones need to be rethought, but – you know – that's the joy of innovation.

Pioneers in the regionalisation of payments

Alana Deighan
Senior specialist for communications at Mastercard

Our 24/7 world is changing people's expectations of payments: we want instant access to products and services, and we expect our money to keep pace. While for many countries this is somewhat new, the Nordic region has been ahead of the curve for a long time. Sweden, Norway, Denmark and Finland have been building and scaling their real-time payment infrastructures for over a decade, and are now among the most digital economies anywhere else in the world.

The danger with any examination of the Nordics is that we tend to treat them as a single market when in fact each country has its own unique and specific traits. Nevertheless, perhaps more than any region, there is considerable amount of cooperation and crossover with all countries sharing many social and economic commonalities.

■ Read more about [Nordic payment pioneers past, present and future at Vocalink Stories](#)

Today, the Nordics embody a culture of collaboration that brings greater benefits to all. This is the one of the founding principles of P27 – a company founded by a group of banks in Denmark, Sweden and Finland. In early 2018, P27 devised the concept for a world-first real-time and batch multi-currency payments platform for the region. Mastercard was awarded the contract to deliver the system, which will connect the 27 million people in the Nordics and enable them to transact seamlessly beyond borders.

When we announced our partnership, Lars Sjögren, CEO of P27 Nordic Payments Platform commented: "This is change for real. By joining forces across the Nordics we will be able to develop instant payment solutions in a way that each country never would accomplish by themselves... further boosting innovation and growth."





A secure leader or a leader of security?

Gene Thai-Low
Manager for B2B marketing at Mastercard

The rise of cyber threats is perceived as one of the highest concerns by global business leaders and has seen the cost of global spend on cyber security and risk management systems reach \$131 billion in 2020. This has highlighted the need for senior executives to acutely understand both the risks and opportunities that the evolutions of cyber technologies will create. This is only increasing with the recent uptick of remote working and dependence upon personal mobile devices which has enlarged the potential for social engineering, consumer scams and malware cyber threats.

Saïd Business School, University of Oxford in partnership with Mastercard has launched an intensive six-week all digital cyber security-focused programme called Oxford Cyber Security for Business Leaders, designed to equip senior executives in addressing the economic challenges of cyber security in business. This programme brings together innovative learning tools alongside contemporary digital and thought-leadership themes from foremost academic and industry experts relating to critical topics in artificial intelligence, cyber security, threat analytics, data privacy, and digital ethics. The aim is to enable leaders to better balance the advances in technology along with the right collective blend of leadership, talent and culture can help alter a fear-based approach into an enabler of opportunity for businesses and its value to society.

“Responsible cyber practice is one of the greatest business challenges of this generation, but also one of our greatest opportunities. We, as leaders, have a responsibility to safeguard customer security, mitigate risk and ensure the right regulatory guardrails are in place,” said Ajay Bhalla, President, Cyber & Intelligence at Mastercard. “To do this, we must stay at the very forefront of technologies that will grow and protect future industry. This course will equip leaders with the skills, insights and tools to do that – and, crucially, in a way that engenders public trust.”

Business leaders in any sector who are seeking to get ahead in understanding the impact of the advances in technology will have on their business should consider this course as a viable option to raise their skills and help them enable innovation. It is not designed for those in a traditional CISO role, but it is informed by their understanding of the risks and explores how a “security by design” approach can significantly enhance business performance and integrity.



■ Further information on this programme can be found at [Saïd Business School Website](#)

Data-driven insights help governments shape relief efforts wisely

Since the beginning of the pandemic, Theo Blackwell has been asking the same question daily: “Will London be okay today?” As the chief digital officer for the city, he relies on data to find out how London’s nine million citizens are faring – their physical health, overall safety, economic well-being and access to public services. And in these unprecedented times, that can change rapidly. “This kind of data collection certainly focuses the mind,” says Blackwell, noting it requires more real-time information than ever before.

Recovery Insights is just one of many initiatives launched by Mastercard to help governments around the globe – as well as business leaders – get a handle on the impact of the new pandemic economy. Since the outbreak of COVID-19, the company has provided insights to municipal and national governments including London, New York City, Arizona and Singapore, free of charge. Blackwell plans to use Mastercard’s insights to help policymakers target recovery funds toward London high streets that are struggling most economically.

Other initiatives are designed to shed light on the impact of various government recovery efforts. In March, the UK Treasury launched the Coronavirus Job Retention Scheme, which funds companies to pay furloughed employees 80 percent of their salary. As of May, the program had protected 7.5 million workers and almost one million businesses. But the Government wanted to understand more, so it enlisted Vocalink, a Mastercard company that provides real-time payment services in the UK and other countries, and other organisations that are central to the UK’s retail payment industry, to

launch a retail payments taskforce. Key activities of the task force include advising on the best payment options available and leveraging data insights to securely and reliably distribute a huge volume of payments to the right people.

“We’re trying to figure out things that no one ever looked at before,” says Mark Greenberg, director of data science for Vocalink’s analytics business. “There are things about the economy that have been hidden that we need to tease out.”

Paul Horlock, CEO of Pay.UK (one of Vocalink’s partners in the retail payments taskforce member) adds: “To reduce unnecessary delays when making such payments in bulk, this taskforce has provided the capability to help HMRC identify a ‘match’ between who is applying for the grant and the account it is to go in to.” Stephen Jones, CEO of UK Finance, another taskforce member, says: “With many businesses and people relying on extra financial support during this period, the industry has worked together to provide its expertise to Government so it can make payments quickly and securely.”

To Blackwell, recent public-private collaborations may herald a new era of using data-driven insights to help people, business and governments navigate a changing world. Beyond the pandemic, he anticipates these insights can be used to shape policies and responses to other global challenges, such as climate change and humanitarian crises. As Blackwell sees it, “If nothing else, the pandemic has proven that the importance of fast and reliable data is undeniable.”

■ Read more about how Mastercard is [supporting cities and governments with data-driven insights on the Mastercard Content Exchange](#)

Supporting the new 'key workers' of the gig economy

Shari Krikorian

Senior vice president for real-time fund transfers at Mastercard

Freelancers now account for a larger proportion of the global workforce than ever before. Our recent report, 'Fueling the Global Gig Economy', suggests they could number nearly one billion globally in the next few years. In fact, freelancers could make up half of the workforce in the US within one decade.

The pandemic's impact on the gig economy has not been uniform, with some segments suffering while others thrived. Sectors that require social proximity, like ridesharing, are experiencing declining demand. Meanwhile, sectors that enable social distancing, such as food and goods delivery, are experiencing surging demand.

But one constant during this time is the financial instability of gig workers, which COVID-19 is bringing into stark focus. Despite the key role many of these workers increasingly play in consumers' and businesses' lives, many gig workers continue to experience volatility in pay and benefits.

As the gig economy grows in prominence, the classification and protection of people currently defined as gig workers is likely to evolve. Regulation, legislation and public support will drive this process. But these workers also need a wage system that works for them rather than the traditional model of work now, get paid later. For workers who support their families from gig and hourly work, quick and convenient access to their earnings is an exceptionally effective way to meet their everyday needs – whether that is to buy gas to complete a ride or to buy food to put on the table.

As gig work permeates every corner of the global economy, and as the financial vulnerability of gig workers continues to make headlines, gig platforms will need to find better solutions to their workforces' challenges. Providing instant access to earnings can improve gig workers' financial health and promote a healthier and more sustainable gig economy, something we can all stand behind in these challenging times.

■ Download our report, 'Fueling the Global Gig Economy', to learn more



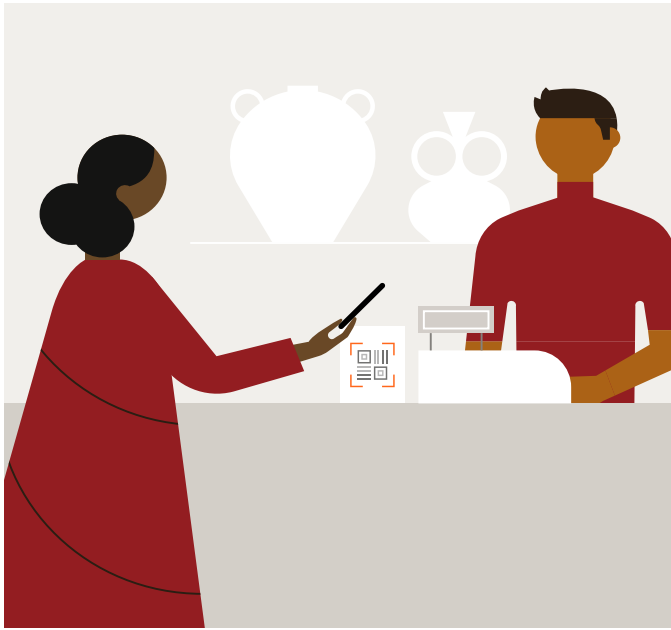
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Low-cost acceptance solutions are driving a digital economy in Pakistan

Atyab Tahir
Country manager for Pakistan at Mastercard

Quick Response (QR) codes are emerging as a popular payment acceptance alternative to point of sale (POS) terminals in Pakistan and across many parts of the Middle East and Asia. These little- to no-cost acceptance solutions not only support digital financial inclusion among micro-merchants, but can also support governments', central banks' and regulators' strategies to remove cash from the banking and payments ecosystem.

Mastercard QR became Pakistan's first interoperable mobile payment solutions when it launched in 2016. To accept payments, the merchant simply registers a unique QR code as a proxy for their bank account details. They display this code as a tent-card or sticker at their store counter, or digitally within their merchant app. When a person checks-out in-store (or online), they simply scan the QR code to pay. Its fast, convenient and secure.

Tahir Ali Agha is the owner of Baily Bachat Superstore – a super store in name if not in nature. Adopting the Mastercard QR acceptance solution has had myriad positive impacts on his micro-business: "We don't have the trouble of managing cash like we used to in the past... and we

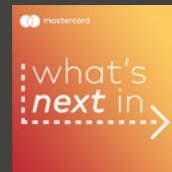
receive fast payments directly into our bank account," he says. Enabling digital acceptance has also boosted his profits: he reports up 30 percent increase in sales. "We are truly satisfied and so are our customers... [it] offers convenience to everyone."

But it's not just micro-merchants that are leveraging QR code acceptance solutions. Four years ago, Pizza Hut (part of the global franchise) in Pakistan became the first big brand to partner with Mastercard to start accepting payments via Mastercard QR. "In [a country] where the major part of the population was still getting used to conventional banking and plastic money," says Arsalan Mahmood, Chief Commercial Officer for Pizza Hut in Pakistan, "digital payments proved to be a catalyst in improving the customer [payment] experience."

The speed, security and convenience afforded to customers by solutions like Mastercard QR has resulted in quick adoption scale. "The instant popularity and acceptance of QR payments in Pakistan was faster than any other country in our region," Arsalan says. For these reasons and more, QR code acceptance is helping to drive a more digital economy in Pakistan – and around the world.

■ Read more from [Pakistan's merchants on the transformational impact of QR codes at Vocalink Stories](#)

Mastercard CXO Donald Chesnut talks customer experience on the podcast 'What's Next In'



In times like these, it's vital for businesses to be close to customers – not so much in the physical sense but in touch with what they need, how they feel, and perhaps most important, how they can deliver goods and services.

Because of this, we see no better time to listen to Mastercard's chief experience officer Donald Chesnut who appeared on the latest episode of the Mastercard podcast 'What's Next In'.

The podcast informally explores big ideas and trends and explains how Mastercard is leading the industry into the future. Each episode, hosted by Arthur Baker, features one of our thought-leading senior executives and explores such dynamic issues as workplace diversity, financial inclusion, smart cities, cybersecurity and artificial intelligence.

Chesnut chats about the strides and efforts Mastercard has made in enhancing our customer experience, how his background in dramatic literature helps his job and an even an examination of the quote, "The experience of the product is bigger than the product itself..."

The duo also tackled the subject of small businesses and the hardships they're currently facing in this global pandemic.

Chesnut says that Mastercard research indicates that consumers want to buy from small businesses – particularly during COVID-19.

There's a real desire to buy local. "They're all under a challenge of trying to respond to how to get more products online and how to accept more payments," he says. "There's just a change in supply chains and mechanisms of delivery that the bigger companies and certainly ourselves need to address."

The global commercial payment market is worth \$125 trillion and ready for a shakeup

James Anderson

Executive vice president for global commercial and B2B products at Mastercard

In offices around the world, millions of dollars are waiting. This year, checks piled up in the mailrooms of corporate offices. What could be vital, working capital fuelling growth is instead spilled across the empty desks of accounting offices. This year's lockdowns spurred by COVID-19 have made clear the drawbacks of manual payment processes for companies.

Companies have digitised much of their operations to realise efficiencies, but across their enterprises, accounts payable and accounts receivable departments have been lagging. COVID-19 has made the digitisation of accounts payables and receivables processes a priority for many corporations, where outdated payments processes are putting a strain on cash flow. According to a report by the Association for Financial Professionals, 42 percent of commercial payments are still made by paper cheques in the United States. It's rare to find an organisation that has fully eliminated paper-based processes.

In September 2019, Mastercard outlined a vision to modernise business payments and in May 2020, we commercialised that solution to drive efficiency for all parties in the transaction – Mastercard Track™ Business Payment Service. Managed through a single, open-loop network, Mastercard Track Business Payment Service allows buyers and suppliers to connect via

payment partners such as banks or specialty players like B2B networks and accounts payable automation companies. As a result of the solution, buyers and suppliers around the world don't waste time going back-and-forth about payment-related issues. Buyers can find out supplier payment preferences via API. Suppliers have access to rich, usable remittance data with every payment, reducing the number of enquiries they need to make and the amount of time they spend on reconciliation.

Mastercard is creating a paradigm shift in the payments landscape, putting an end to the operational and financial challenges created by inefficient processes and multiple varying point-of-origin payment systems.

The global commercial payment market is \$125 trillion of payment flows, and is ready for a shakeup. Businesses that adopt new payment approaches like Mastercard Track Business Payment Service will be able to quickly adjust to changing conditions, optimise working capital, and improve cash flow and will be a part of what it takes to modernise today's commercial payments ecosystem.

■ Visit mastercard.com/track to learn more



Mastercard Track™
We're smoothing the
supply chain so nothing
slows business down.

Start with people and
Start Something Priceless™

Learn more >



Helping farmers bank on a robust future for coffee

Vicki Hyman

Manager for external communications at Mastercard

There are 235 million people around the world who make their money selling agricultural products but remain outside the formal financial system. That can mean hours-long trips to the nearest city to cash paper cheques and no secure place to store and manage their money.

“We are always rushing, we don’t have time,” says Mario Alberto, a smallholder farmer in Chiapas, Mexico. “Sometimes when we visit banking branches, they’re saturated. It’s a difficult situation for us because when we sell the coffee, we need the money to cover all expenses related to the coffee product.”

Helpfully, a robust partnership is brewing in Mexican coffee communities to digitise the coffee supply chain, giving farmers a safer, more convenient and direct way to get paid by the world’s largest coffee merchant Neumann Kaffee Gruppe (NKG).

Through the Café Paga-NKG BLOOM collaboration between NKG’s local subsidiary, Exportadora de Café California in Mexico, Mastercard, and banking partners, farmers are issued a debit card and receive training so they can collect payments electronically, manage their money and save it – reducing earnings lost to intermediaries and increasing transparency between the farmers and their buyers while keeping their money secure. The initiative has since expanded to Colombia.

By creating a digital means through which NKG can directly pay farmers in a safe, fast and affordable way, NKG can then open credit lines for farmers so that they can access needed funds during the “hunger months” before the coffee harvest.

“Through our sustainable sourcing strategy NKG BLOOM, we are providing farmers with critical services, including financing, training and market access, which they need to run their farms at full potential and maximize their incomes from coffee,” says Catalina Eikenberg, Head of Sustainable Business at NKG. “Without the possibility for digital payments, this would be operationally impossible. With digital payments, it cultivates a pathway to full financial inclusion and a road to resilience.”

Access to digital financial services is especially crucial during the COVID-19 pandemic – governments can deliver financial support to those deeply affected by the crisis quickly and easily, with recipients able to access funds while avoiding crowds and risks of infection.

In the case of government-to-person payments, digital financial services function as a flexible and cost-effective way to transfer subsidies and monetary support to a population affected by the crisis.

In Colombia, three of the coffee growers that participated in the project were able to receive, in a quick and timely manner, the government-sponsored Ingreso Solidario – emergency aid for the poorest families in the country to enable them to get through the lockdown period while income-generating activities may have to come to a halt. Our on the ground training partner, Fundación Capital, provided basic financial education around care usage and benefits, and financial savings and planning.



■ Discover lessons from [expanding digital payments to remote communities in Mexico and Colombia](#) from the Mastercard Center for Inclusive Growth

Combatting opportunist fraudsters

Ashley Hart
Head of fraud at TSB

One in four people have been a victim of APP fraud

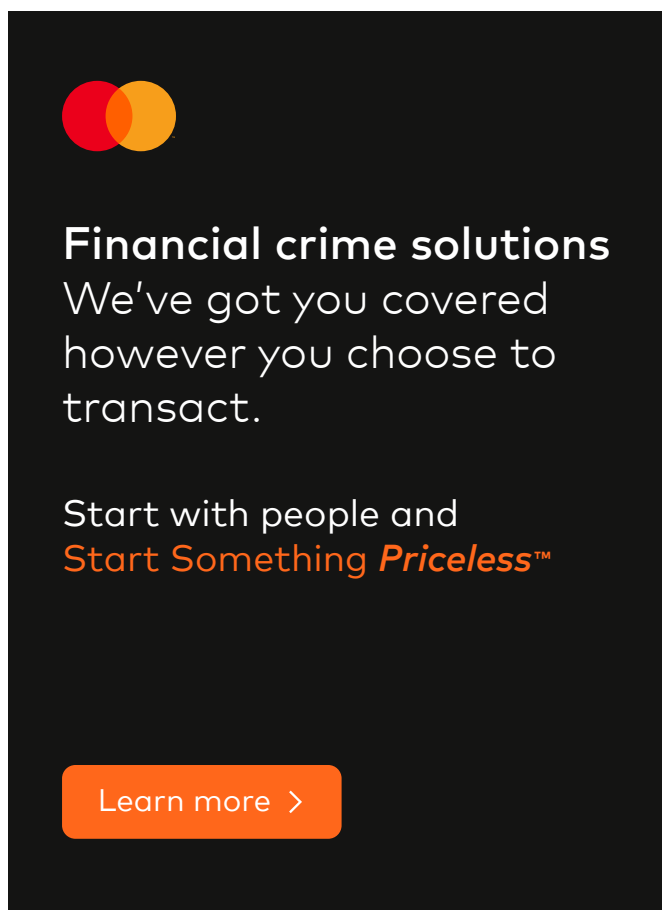
Since the beginning of the coronavirus pandemic, the UK and other countries have recorded a spike in authorised push payment (APP) scams, in which a fraudster advertises something for sale, accepts payment, but doesn't follow through on delivering it. They've been responsive to people's changing behaviours when it comes to the kind of goods they're touting.


At the beginning of lockdown, people began shopping online for goods that were difficult to obtain in supermarkets: electronics; clothing; toilet paper. "Fraudsters capitalised on that," says Hart. As the number of deaths from coronavirus passed 20,000 in the UK, criminals joined digital marketplaces and social media to sell **fake testing kits and personal protective equipment**. Now, as things are opening back up, they're changing their bait.

"We're starting to see more aspirational purchase scams: things like motorhomes, caravans and holiday cottages being advertised for rent or sale that simply don't exist."

Anyone can be targeted by APP fraud. It's not just the elderly or the digitally unsavvy, as many would expect; in fact, 18-35-year-olds are among the most common demographic to fall victim. "They probably have a larger online presence; they're probably more used to interacting with strangers on social media..." offers Hart. That's where the fraudsters approach them, pretending to be a peer.

Businesses, too, can fall foul of APP fraud. The same remote access scams are particularly effective on company executives working at home, and tend to be far more lucrative for a fraudster than targeting an individual.




Financial crime solutions
We've got you covered
however you choose to
transact.
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Though the UK payment industry couldn't have foreseen the events of the past few months, it has long recognised the significant and rising threat of fraud. In 2018, Pay.UK, the UK's leading retail payment authority, introduced Confirmation of Payee to help prevent misdirected payments and certain types of APP fraud.

"The fantastic thing about [Confirmation of Payee] is that it gives the customer complete confidence that the account they are about to pay into is definitely registered in the name they think it is," says Hart.

TSB is leveraging Vocalink and Mastercard's financial crime solution to Verify Account Name to deliver effective confirmation of payee while catering for variations in name spelling and format. By using historical payments data and sophisticated algorithms, our solution helps financial institutions match the vast majority of account name, sort code and account number combinations with a high degree of accuracy even when name variations are high.

"Collaboration is the thing that will defeat the criminals; if we all work together, we all share insights," declares Hart. By coming together to identify and prevent criminal activity, people and businesses can trust that we're making every effort to win the war on financial crime.

■ [Read the full article on collaborating to combat opportunist fraudsters at Vocalink Stories](#)



From the innovators of today
to the innovations of tomorrow

Start with people and
Start Something Priceless™

We're collaborating across the industry to enable and secure the movement of money and data between people, businesses, governments and other organisations however they choose to transact, making all payments safe, simple, smart and accessible — for everyone.

[Learn more >](#)

Advancing digital inclusion to drive financial empowerment

Today, 3.4 billion people, almost half the world's population, still struggle to meet basic needs such as access to food and life-saving healthcare. Often, the lack of a formal and consistent identity creates barriers to receiving fundamental services.

As needs overlap, a simple, digital tool supported by a consistent digital identity lets individuals access and manage essential life services in a more efficient and secure way, increasing their access and usage of those services, improving their livelihoods and putting themselves — and their communities — on a pathway to prosperity.

Advancing digital inclusion drives financial empowerment: It enables safe, secure, and convenient digital transactions — whether an individual is getting healthcare services at the local clinic, checking into a school or even redeeming humanitarian cash aid to purchase goods at a local store.

Earlier this month, Mastercard and Microsoft announced details of a new partnership to enable the future of digital commerce. A focus of the collaboration will be supporting Mastercard's Community Pass initiative, a platform that aims to help underserved communities by providing access to education, basic healthcare and other essential services using a digital tool that gives individuals a 'consistent digital identity'

Leveraging our digital expertise to find scalable models to connect billions of underserved people to life critical services is core to Mastercard. Working with our partners, Community Pass will enable governments, NGOs and service providers to simplify and improve access to essential life transactions.

■ Learn more about Community Pass and how shared digital platforms are providing underserved communities access to essential services and opening up [pathways toward prosperity from the Mastercard Center for Inclusive Growth](#)

Agony Aunt Dee Dee

"I love getting personalized offers but I hate the creepy feeling I get when I do a random web search and then suddenly every bit of advertising I see relates that search. Will I one day get used to it?"

— Discerning European

I swear, I Googled "how to get Cheetos stains out of my pillow" one time, and I'm still being digitally stalked by Chester Cheetah. So I feel your pain — and so do many others. Research shows people aren't convinced they're getting a good deal out of the data they share — a [recent Mastercard-sponsored Harvard Business Review Analytic Services study](#), "The Great Data Exchange," found that while 60 percent of executives believed consumers think the value they get in exchange for data sharing is worthwhile, only 44 percent of consumers actually felt the same. One expert cited in the study said companies need to build trust with consumers first — for example, but being more transparent about how their data is used — then gradually introduce personalisation. As more consumers become vocal about their privacy concerns, that exchange may become more equitable. Oh, and the answer to my question? Buy new pillowcases and keep the snacking to the couch.

"When I used to return home from traveling overseas — remember when that was a thing? — I often noticed that the amount I paid for a meal or a memento would sometimes be a little different when I checked my credit card statement. What's the deal?"

— Wondering Wanderluster

Ah, when foreign travel didn't mean going to the supermarket in the next town after yours ran out of toilet paper. Currency conversion can be complicated, but consumers shouldn't require an advanced economics degree to buy a tchotchke — and they don't need to. Most of the payments industry independently applies currency conversion rates during the authorization and clearing processes, leaving consumers in the dark about the final amount they will be charged. But starting in August, credit card issuers that use Mastercard's new [FX Rate Lock](#) guarantees the same rate will apply throughout the process on our network, so consumers will know the cost of their purchase in their native currency at the point of sale.

"No one signs the back of their credit and debit cards anymore — and no one ever checks them anyway. Yet some restaurants and a few stores still ask me to sign receipts. These days, I'm hesitant to use someone else's pen. Can I refuse?"

— Stateside Germaphobe

For decades, credit card and receipt signatures were used to verify identity — although you'd think my name is spelled D^|~ from my scrawl — and to provide proof in case the cardholder disputes the transaction. With the acceleration of online commerce, the payments world has figured out new ways to detect fraud, and signatures are often only required over certain thresholds. But Mastercard no longer requires signatures to complete a purchase. So yes, you can politely decline and the merchant will still get paid. Emphasis, people, on politely! Civility — now that's priceless.

Securing the Internet of Things: your body language is your ID

What have biometrics got to do with the Internet of Things? After all, biometrics are about human beings, and the IoT is about, well... things, right?

In fact, the two are increasingly interlinked. The line between our physical and digital worlds is blurring. We are rarely offline. We interact both consciously and unconsciously with a burgeoning array of digital devices and sensors. The IoT manages access to connected homes, buildings and cars, operates appliances and controls industrial processes.

That creates a myriad of new vulnerabilities. It's one thing having a hacker take over your computer or bank account, another entirely if they infiltrate the digital brain of your car or home, or smart city. So how to secure the IoT? If the entities within it are to remain accountable to us, the best solution is to ensure they can be identified and their actions authenticated without the creation of further cumbersome accounts and passwords. Biometrics provide a solution: enabling the secure management of devices without the addition of friction to daily lives.

When Mastercard talks about deploying "biometrics", we are referring to far more than a fingerprint or face – known as physical, or explicit, biometrics. We mean the sophisticated interpretation of person, circumstance, device,

behaviour and their relationship to the wider digital ecosystem. After all, in the real world, we rely on more than just physical appearance to identify an individual. Consider a hypothetical example: Sam's neighbour Lynn drops by to borrow his lawnmower. Sam feels confident about lending the mower because he recognises Lynn (her physical attributes), Lynn has borrowed it before (history), and Sam subconsciously assesses the risk of losing the lawnmower as low (intelligence). All of these factors – and more – play a part in building confidence in a particular interaction.

In much the same way that Sam recognises Lynn, advanced machines using AI are capable of learning to recognise those aspects of an individual's behaviour and circumstances that are relevant to the task at hand. These techniques are increasingly being used in authentication to identify bad actors trying to masquerade as legitimate users. In mobile commerce, for example, behavioural analytics can assess the passive biometrics of how an individual interacts with their phone: how they type, swipe, and navigate websites and apps. From those individual data points, a valid user profile can be created that is difficult for fraudsters to spoof. Crucially, authentication techniques that apply intelligence to explicit and passive biometrics don't require extensive knowledge of the individual. They are smart about recognising the individual, the device and the situation at hand.

"How do we know someone is who they say they are? We can exchange knowledge – in the form of passwords, PINs, memorable data or personal details. But these verification methods come at a price – loss of privacy, inconvenience and insecurity. That's where biometrics come in.

In 2023 alone, it's anticipated that 37.2 billion transactions, at a value of \$2 trillion, will be authenticated by biometric technology."

– Ajay Bhalla, President of Cyber & Intelligence Solutions at Mastercard

■ Want to learn more about how Mastercard's biometric authentication solutions are securing the digital economy? [Visit the Mastercard Content Exchange to download our white paper](#)



A frictionless future of seamless, certain cross-border trade

Stephen Grainger

Executive vice president for business partnerships at Mastercard

With a proliferation of digital technologies and tools, the way we live, work and do business is becoming increasingly border-agnostic. If current events have taught us anything it's that the world is connected, and our payment systems must follow suit.

■ To learn more, and download the solution paper, visit crossborder.mastercard.com

Enabling the success of our partners is central to Mastercard's ambition. In recent years, we've been systematically acquiring strategic assets and enhancing our capabilities to improve worldwide connectivity in the account-to-account space. Our combined networks can reach more than 100 countries, more than 50 currencies, and more than 90 percent of the world's population.

We continue to grow our network reach into ever more strategic markets. In July 2020, we announced a partnership with the Bank of Shanghai to enable faster, more cost-effective and transparent cross-border payments into China – now the largest export economy in the world. Business customers will be able to transfer money to any local bank in China, reduce the cost of transactions, and access real-time exchange rates for the Chinese Yuan. They will also be able to benefit from

Mastercard's end-to-end cost transparency, near real-time delivery speed to the beneficiary's bank and a reduced need for additional documents and process.

Bank of Shanghai joins a growing list of global banks working with Mastercard to offer people and businesses a more effective way to pay and get paid – via one connection to reach the world.

Today, Mastercard operates one of the world's largest payments networks, processing transactions in 210 countries and territories and over 150 currencies. Together with our banking partners, we're growing our network reach. We're fast delivering on our joint ambition to enable a frictionless future of seamless and certain cross-border trade.



Join us at Sibos from 5–8 October 2020 and beyond

Not attending Sibos this year?

Catch all the conversation from Mastercard after the event at mastercard.com/startwithpeople

You can also catch us at the following industry conferences:

Dublin Tech Summit
14 October

Open Banking Excellence
15 October

EBAday 2020
24–26 November



Tackling food emergencies with Intesa Sanpaolo

Giuliana Abbate
 Director for communications at Mastercard

Never has our commitment to doing well by doing good been more urgent. That's why we are working with organisations and communities to provide support and recovery efforts for people around the world.

To support people through the health and economic crisis wrought by the coronavirus, Mastercard and Intesa Sanpaolo have launched a three-year technology partnership aimed at promoting and supporting donations to Italian non-profit Caritas Italiana to help tackle local food emergencies.

The collaboration brings together Mastercard's technology expertise in connecting people to the causes they care about most and Intesa Sanpaolo's experience on promoting solidarity campaigns. Together this involves creating new donation methods and platforms that allow people to contribute and support the Caritas Italiana project by helping families in need – one dish at a time.

The first project of this long-term partnership was focused on allowing card holders to donate using their payment cards at one of the eight thousand bank ATMs. The project exceeded its initial target less than three weeks after launch.

In addition, Mastercard, with the support of the Mastercard Impact Fund and the Center for Inclusive Growth, has donated 175 thousand euros to Caritas Diocesana of Rome in support of "Empori della Solidarietà" allowing two thousand families in need to get access to free shopping for food and other grocery products.

■ To learn more about how [technology is transforming how we give](#), visit the [Mastercard Content Exchange](#)

ISOdoku

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Real-time payments market continues to mature

Andrew Neeson

Manager for market intelligence at Mastercard

Real-time payments have come a long way over the last half dozen years or so. When our partner BCS went live in Singapore with the FAST real-time payments system in 2014, there were just 18 other equivalent systems around the world. Fast forward to 2020 and our internal tracker counted 49 live global real-time payments systems covering 58 different countries and territories. These markets account for the equivalent to over 89 percent of global GDP.

The significant growth of real-time payments in 2019 is indisputable. We estimate that there were over 47 billion transactions in 2019, up from around 26 billion in 2018. Arguably the most impressive performer in 2019, however, was Promptpay. In less than three years the Thai real-time services has quickly established itself as one of the largest globally, both in absolute terms (total number of transactions) and in relative terms (transactions per capita).

According to Chavamon Vinijtrongjit, Head of Bancassurance Products at TMB Bank, PromptPay heralded a new era for detail payments in Thailand.

80%
real-time transaction
growth in 2019

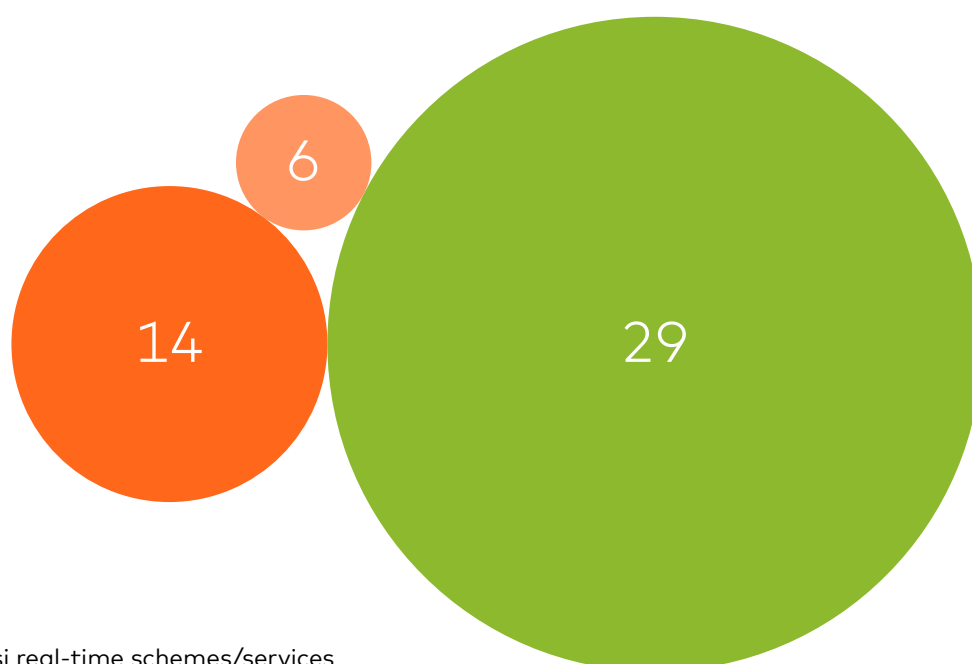
While most Thai people previously had access to online banking, usage was low: “The arrival of real-time payments... removed much of the fear of using digital payments. Security and convenience, coupled with the elimination of interbank transaction fees, has resulted in an explosion of growth.”

Usage of the Vocalink-built service jumped 147 percent in 2019 to 2.6 billion transactions making it the fourth largest globally, equivalent to 38 transactions per capita. To put this in context, India and China are around 10 transactions per capita. The speed of adoption of PromptPay in Thailand is unrivalled.

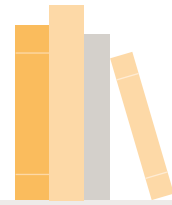
Even as we navigate these uncertain times, our expectation is we will continue to evolve and deepen out usage of real-time payments across those 58 countries and territories that are currently live – and more, supporting strong and sustained growth in the years to come

■ View the [real-time tracker in full at Vocalink Stories](#)

Type and number of real-time systems (August 2020)



- RTGS or instant settlement
- Deferred net settlement
- Other limited real-time or quasi real-time schemes/services



Stories from the frictionless future of payments

Uprooted

"People are getting used to the idea of indoor farms," said Ben. "But it's still fun to see their faces the first time..."

Ella followed him onto the viewing platform and looked out across the warehouse. It was enormous. Thousands of seedlings grew under hot pink lights, and there was piano music playing over speakers.

"It's all hydroponic," said Ben. "The plants feed through water, instead of soil. They grow three times faster this way — and with less waste."

"And the music?" asked Ella. "Does that help the plants grow too?"

Ben stifled a laugh and Ella felt the blood rise to her cheeks. "That's a good one," he said. "Music for courgettes... No. The music's for Zeb, our technician. He's a big Debussy fan."

He pointed to a man in plastic shoes and a lab coat. "Right... better get you to your induction."

Ella might not have known much about plants, but she knew her stuff when it came to running a business' accounts. That's why HydroGrow had hired her.

Within a few months, she'd transformed the finance department — bringing in new systems that automated their antiquated processes. Ben, the Finance Director, was delighted.

One day Ella got a message from HydroGrow's bank. The email flashed up on her smart glasses. It said that the bank's behavioural profiling system had detected a suspicious payment request from the company that made the farm's robotic bees.

Ella told Ben. "But there's no way RoboBees would get mixed up in fraud," he said. "We've been buying from them for years without the slightest trouble. The bank's made a mistake."

"OK," said Ella, nodding her head upwards to close the email. "If you're certain... I'm going for lunch."

On her way to the canteen, Ella walked through the pumpkin warehouse. It was packed full of star-shaped flowers. RoboBees buzzed about, humming their wordless tunes.

Surely, thought Ella, there was no way those suppliers were guilty of fraud. She'd built a good relationship with their finance department. They seemed really nice.

Ella put the thought out of her mind and approved a new RoboBees invoice that same afternoon.

The next day, she received another email from the bank asking her to give them a call. She double-tapped her frames, switching to phone mode.

"RoboBees has been hacked," said the woman at the bank. "Their business account has been linked to a known money mule network."

"How can you know?" said Ella, horrified that she'd been so easily fooled.

"We're part of a fraud detection network," said the woman. "The network uses AI and predictive analytics to build a real-time picture of how money flows — not just within HydroGrow, but across suppliers, other banks, and beyond."

"So the invoice I approved yesterday... all that money's been lost?" Ella kept her voice low, trying to remain calm.

"The mule network has been frozen," said the woman from the bank. "The money has already been returned to your account."

"Oh thank goodness." Ella leaned back in her chair.

After the call, the bank emailed Ella a graphic representation of the data they'd used to catch the fraudsters. It looked like hemlock, with flowers arranged in clusters. Beautiful, but highly poisonous...

Ella removed her smart glasses and went to tell Ben. He was on his lunchbreak, chatting to Zeb in the aubergine room.

The two men were crouched down, staring at one of the shelves.

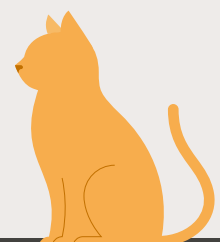
"Hey Ella," said Zeb, as he saw her approach, "look at this."

"What is it?" she asked.

The technician uprooted a plant, holding its stem between gloved fingers.

"I think it's young hemlock!" He gave it a shake. "Deadly stuff... I wonder how that got inside."

■ Learn more about Mastercard's [solutions to secure the digital economy at \[vocalink.com/financialcrimesolutions\]\(https://www.mastercard.com/financialcrimesolutions\)](https://www.mastercard.com/financialcrimesolutions)



Paying bills in the new normal

Dick Paul

Vice president for real-time payment applications at Mastercard



The coronavirus pandemic and its resulting effects on the economy have led many people – particularly furloughed workers, gig workers, freelancers and others whose incomes have been disrupted by nationwide lockdowns – to re-evaluate their personal finances. Some have suspended their recurring payments in an attempt to balance their budgets and gain greater control of their outgoings.

According to data from Pay.UK, the UK's leading retail payments authority, the total value of payments via Bacs Direct Debit declined 7.3 percent in volume and 31 percent in value in May 2020 compared to the same month last year. Volumes have begun to bounce back to growth in June and July, although in value terms it is still a little behind the previous year's numbers.¹ The decline likely results from the cancellation – or temporary suspension – of non-essential bill payments, such as subscriptions for TV services, charitable donations, and gym memberships as people attempted to reduce their overall monthly outgoings.

To a lesser extent, the decline may also result from the cancellation of essential (non-discretionary) bill payments, such as taxes, mortgages and utility bills. Of course, temporary measures such as mortgage and loan repayment holidays introduced during the pandemic have deferred repayments for some, however this is a temporary form of assistance and not something more vulnerable segments in the economy can rely on long-term.

Direct Debit has its clear advantages, providing peace of mind and certainty of payment to those who are in a stable financial position. However, being able to choose how much to pay, when to pay, and how to pay based on circumstances at the time helps people manage their personal finances much more effectively. Our research shows people feel they lose control when the amount taken out by direct debit varies each month; 28 percent find it frustrating not being able to specify when money should be taken.²

“People want to change the date of their payment depending on when they receive their salary, or in relation to other outgoings. Offering flexible payment terms and more choice of payment methods will certainly help to reduce late payments and customer queries” – Accenture

Payer-initiated bank transfers and card payments give the growing segment of people with a variable income the flexibility they need. However, these payment methods can be time consuming, requiring a significant effort from the user to interact with their biller each month. There is also a risk of missed payments; 30 percent of people having missed paying a bill on

time, and in 58 percent cases this is due to people simply forgetting.³ This makes it harder for their billers to predict when payments will be received, impacting their cash flow and liquidity forecasting, and complicating their payment reconciliation processes. In the event a payment is missed, billers incur high costs associated with chasing customers for late payments.

35% of calls into billers' customers call centres relate to billing⁴

“Dealing with billing-related customer calls requires co-ordination between multiple teams such as customer services, billing and accounting. This creates real challenges and can be costly for billers, often leading to further delays and disputes.” – Accenture

A new solution from Mastercard, which leverages ‘request to pay’ based financial messages, provides a next generation alternative that suits payers and billers alike. Mastercard Bill Pay facilitates a dialogue between the biller and the payer, bringing together bill presentment and payment in one place. Payers can receive, manage and pay all their bills seamlessly via their trusted financial institution's app. This experience offers them greater control, convenience and confidence when it comes to managing their financial commitments. They can choose to pay now or schedule their payment for a later date, and can also message billers directly with any billing related queries.

With Mastercard Bill Pay, billers have visibility of whether payers have received and paid their bills via real-time presentment and payment information, removing the need for unnecessary customer communications through other channels and optimizing liquidity forecasting. Billers can communicate directly with their customers, enabling them to respond if customers require more flexibility or show they don't intend to pay much more efficiently. This can help them to strengthen their customer relationships and reduce the risk of attrition.

Our Bill Pay solution is payment agnostic, meaning funds can be sent via account to account payments, direct debit, card, or as a payment initiation request via Open Banking. Our solution is available in the UK to enable billers and financial institutions to participate in Pay.UK's Request to Pay service. Mastercard is one of the first providers to be enrolled in the service, and our solution meets all the rules and requirements outlined in Pay.UK's framework.

It's a better bill payment experience – for the new normal and beyond.

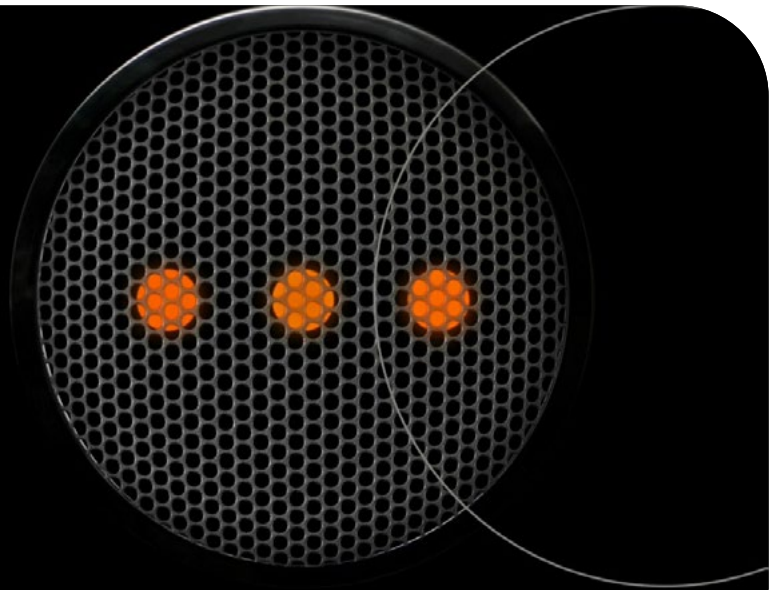
■ Visit [Vocalink Stories](#) to learn more about [Mastercard's Bill Pay solution](#) and [download the research report](#)

¹ Pay.UK, Payment Statistics, 2020

² Mastercard, Consumer research undertaken by Ipsos in Italy & Germany, 2019

³ Intrum, European Consumer Payment Report, 2019

⁴ Mastercard, Biller Interviews, 2020



Season three of Mastercard's flagship podcast Fortune Favors the Bold unpacks how money is tangled up in everything from education and work, to travel and identity, to seek answers that will help everyone feel empowered to navigate an ever-changing financial landscape in a way that makes sense to them.

How can we work together in a crisis?

Fortune Favors the Bold brings you a bonus episode. Our host, Ashley C. Ford, sits down with Trevor Mundel, President of Global Health at the Bill and Melinda Gates Foundation, and Mike Froman, vice chairman and president for Strategic Growth at Mastercard to answer the question on all of our minds: How can we work together in a crisis?

Listen to the full series of Fortune Favors the Bold on the Mastercard Content Exchange or on Apple Podcasts, Google Music Play and all other listening platforms

The sound of security, acceptance and trust

Sound has the power to connect and create lasting associations. Whenever you check out with your card, wearable or device – in store or online – the Mastercard Checkout Sound and Animation instantly confirm payment approval. Mastercard’s established brand presence is recognised worldwide, on storefronts, on payment terminals, in apps and online. The Checkout Sound, a unique, six-note tone that plays upon transaction approval, is a new way for merchants to leverage the reassuring effect of Mastercard’s familiar brand to reinforce trust and peace of mind.

“While we knew our strategy was strong, the initial impact from our Mastercard Checkout Sound is both fantastic and incredibly rewarding. The numbers tell a brilliant story of the reciprocal value and relationship between brand and business,”

says Raja Rajamannar, chief marketing and communications officer at Mastercard.

Indeed, research tells us that when hearing the Mastercard Checkout Sound:

- 65% of consumers feel the store or website is trustworthy
- 78% feel better shopping at a store or website
- 80% are more likely to return to the store

So next time you shop, listen for the signature Mastercard Checkout Sound and leave the guesswork out of it, knowing we’ve got you covered.

Source: Mastercard Sonic Research Study, (GFK, August 2019 and May 2020), a Mastercard commissioned study

■ Ask your Mastercard business contact to learn more

Payment crossword

Across

- How online fraudsters reel you in
- Regulations that changed the face of digital privacy
- We hear this is a growing way to pay
- What Mastercard enables (and the unironic location of its global headquarters)
- Abbreviation for what your refrigerator and your watch have in common
- Where the transaction magic happens
- The secret code to securing sensitive data
- There’s nothing minute about this engine of the global economy
- The handwriting is on the wall for this authentication method

Down

- Making a little loan go a long way for small entrepreneurs
- Tap into this accelerating payments trend
- This type of prepaid card never has to go out of style
- Campaign that hit a home run for Mastercard since its 1977 launch
- Let’s get physical ... authentication
- Why you keep coming back to a certain card

