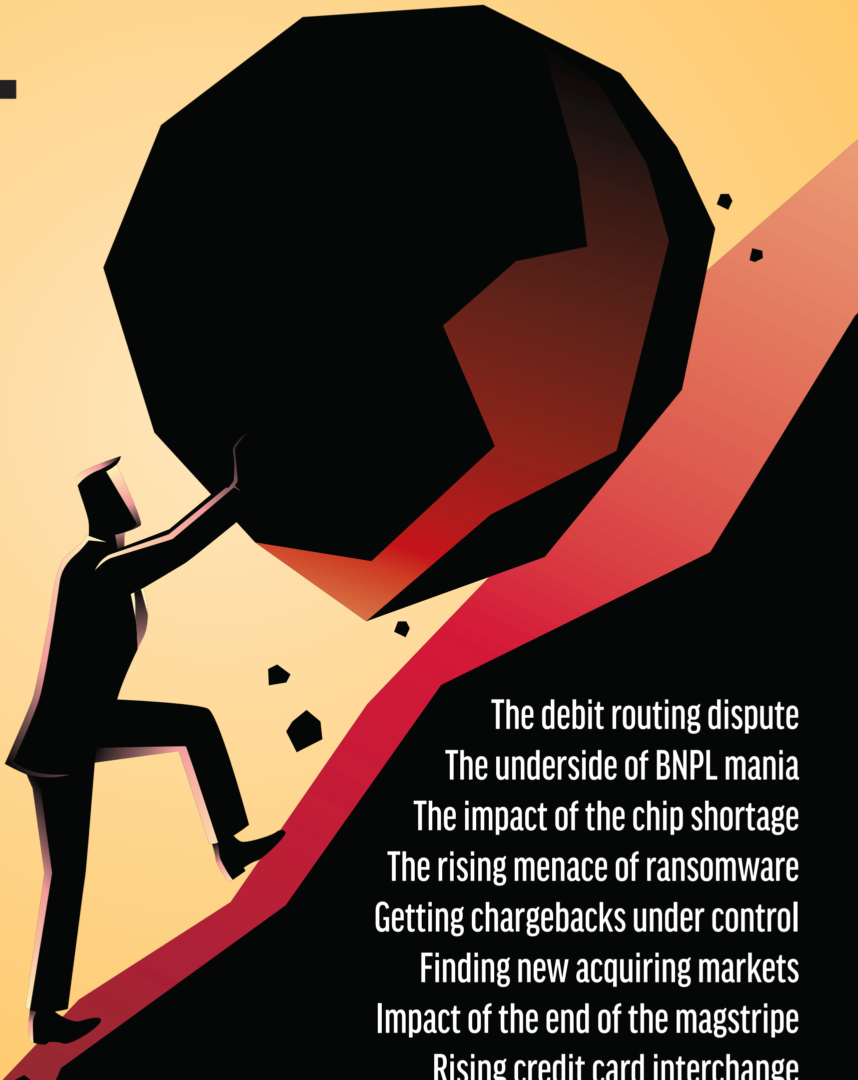
DIGITAL TRANSACTIONS®
Trends in the Electronic Exchange of Value

15TH ANNUAL

THE 10 MOST PRESSING ISSUES IN E-PAYMENTS



The debit routing dispute
The underside of BNPL mania
The impact of the chip shortage
The rising menace of ransomware
Getting chargebacks under control
Finding new acquiring markets
Impact of the end of the magstripe
Rising credit card interchange
Mergers and platform consolidation
Same-day ACH vs. RTP?

Volume Eighteen, Number Eleven • DigitalTransactions.net • November 2021

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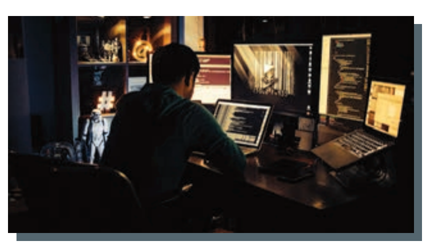

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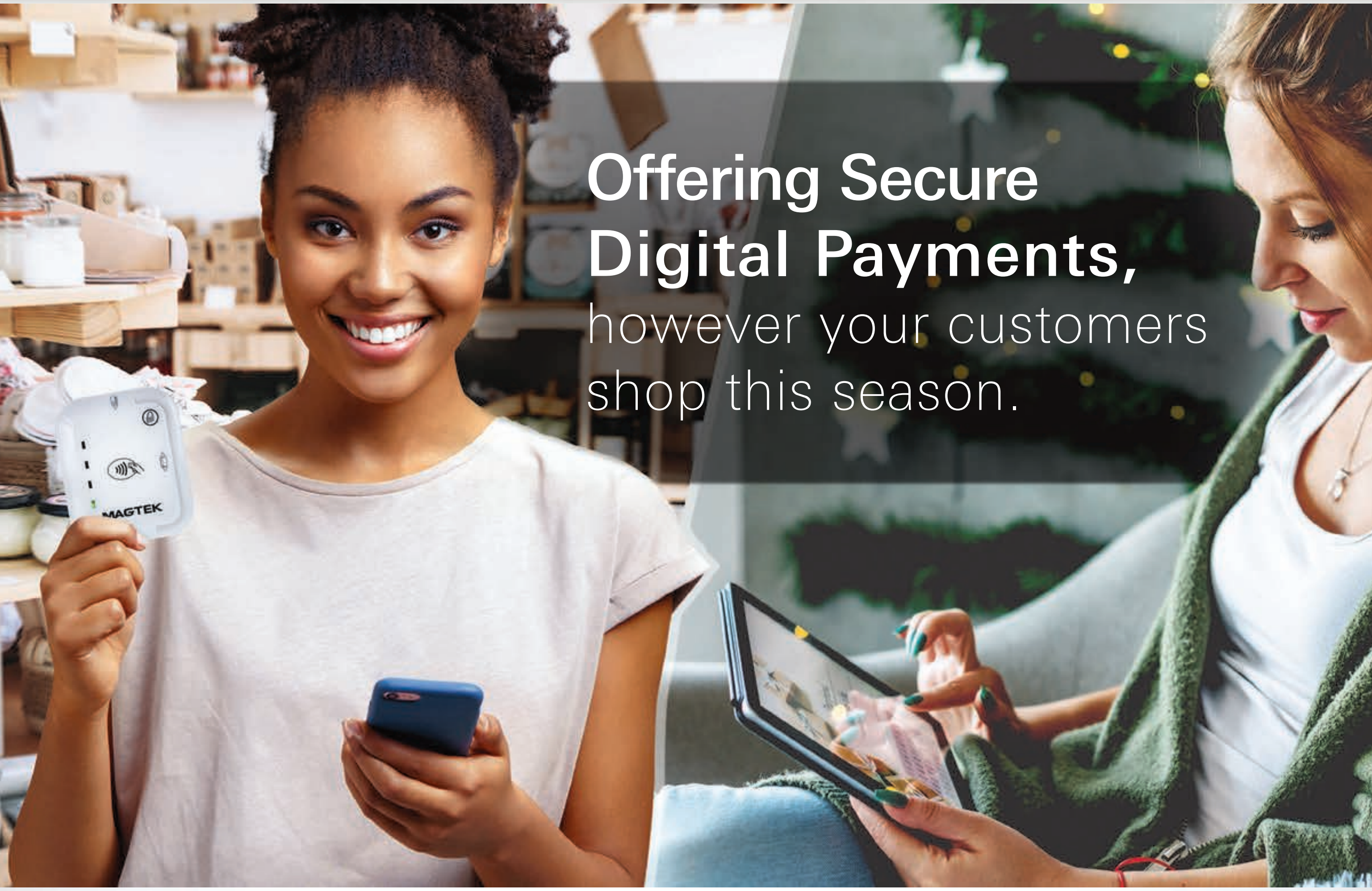

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the gimlet eye

A RAY OF LIGHT?

THE PAST 20 MONTHS HAVE BEEN DIFFICULT, to say the least, and the virus behind all the headline misery is still with us. And that's without accounting for Delta and other variants of this plague.

One of the most frustrating logistical problems created by Covid has been the shortages of key components across industries of all sorts caused by snarled supply lines and labor shortages. But one of the more interesting stories emerging from these issues is how they have underscored the key importance of technology that had been on the periphery and now has the potential to be front-and-center.

A case in point: The global shortage of semiconductor chips that's whipsawing makers of point-of-sale terminals and other payment devices ("Out of the Chips," September) has left at least one technology firm sitting pretty.

That's because MagicCube's technology enables users of off-the-shelf mobile phones to process card transactions on their devices. No other hardware is needed. In the face of a pandemic whose duration can't be accurately predicted, despite vaccines, MagicCube CEO Sam Shawki told *Digital Transactions* in August the company is attracting greater interest. "It's wind in our sails," Shawki said, referring to the terminal industry's frustrations with the chip shortage. The interview was part of the research for Peter Lucas's September cover story, "Out of the Chips."

"This [the chip shortage] has been an element that encourages some players to look at us more closely … Everyone that stopped talking to us are back as they are looking at alternatives," Shawki said during the interview.

The Santa Clara, Calif.-based company announced last month Mosaik Partners had led a $15-million funding round in MagicCube. Bold Capital, Epic Ventures, and IDTech, a maker of card readers, participated in the round.

The shortage, which began to emerge last year, continues to frustrate makers of conventional payment terminals. One supplier told *Digital Transactions* that lead times have stretched to 26 to 30 weeks for orders that took 12 weeks to fill before Covid emerged.

By contrast, MagicCube's software, known as i-Accept, allows merchants to run card transactions on their own mobile devices. So far, the company has introduced the technology, which enables acceptance of contactless cards branded by American Express, Discover, Mastercard, and Visa, in the United States, Brazil, and, most recently, the United Kingdom, and Ireland.

MagicCube could still stumble. And it may not have this burgeoning market to itself. Apple Inc. last year acquired Mobeewave Inc., a Montreal-based company whose technology enables smart phones equipped with near-field communication to act as point-of-sale devices with no other hardware. But it's helpful to see what could be a ray of light in an otherwise gloomy picture.

John Stewart, Editor | john@digitaltransactions.net

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SPECIALIZED PLAYERS CLAIM A RISING SHARE OF MERCHANT ACQUIRING

Despite a temporary setback at the start of the pandemic, merchant acquiring is getting back on a growth track that will see revenue expand at an 11.3% annual clip through 2025, nearly equaling the 11.8% rate chalked up from 2015 to 2019, according to a report and forecast released last month by The Boston Consulting Group.

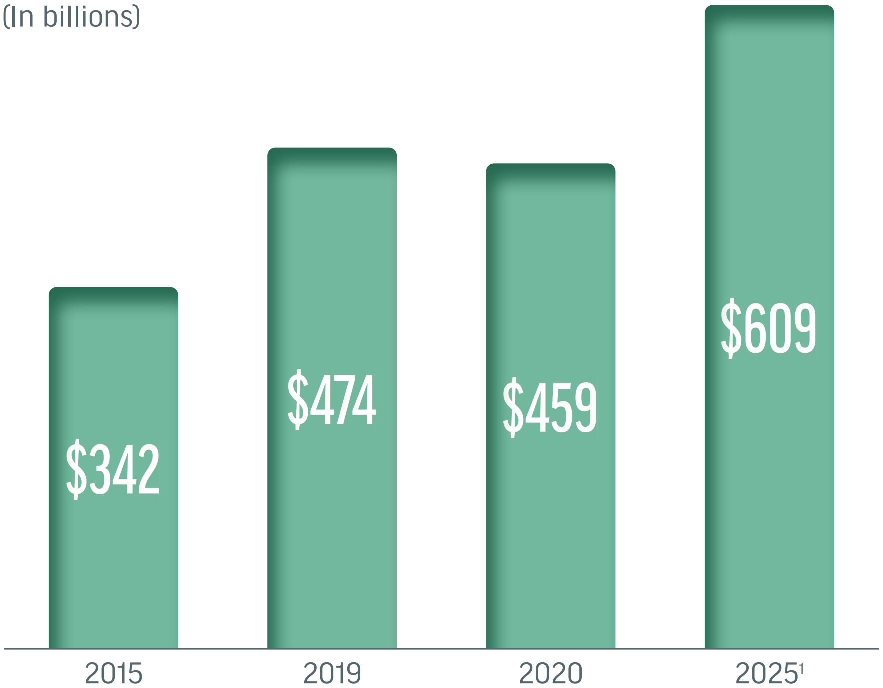
At the same time, traditional acquiring players—banks and independent sales organizations—are giving up revenue share to newer entrants, including software developers and marketplaces. The report indicates traditional providers controlled 66% of acquiring revenue last year, down from 90% only five years earlier. Integrated software vendors alone commanded a 10% share in 2020, up from 4% in 2015.

The fast expansion of e-commerce and such newer markets as the so-called sharing economy is helping drive market share for ISVs and marketplaces, according to the report.

"As the sharing economy expands beyond car services and lodging, ISVs and online marketplaces will embed payments capabilities—such as onboarding for small, local merchants; checkout for consumers; and recurring or subscription-based payments—into their platforms, commoditizing the core transaction product," add the BCG analysts. "To remain

PAYMENTS REVENUE IN NORTH AMERICA

(In billions)



1. Projected   Source: Boston Consulting Group

competitive, established payments players will need to offer specialized [value-added services] and rethink their direct-to-customer distribution models."

Acquirers in coming years will need to redouble investments in innovation and risk management in particular, the analysts advise, as financial institutions react to recent trends.

"The spike in credit and fraud risks (notably in segments where the spread between purchase and service delivery is wide), the Wirecard accounting scandal, and the need to implement anti-money laundering and sanctions provisions have increased institutional concern over risk management in merchant acquiring, especially for nonbank acquirers that have not been subject to bank-style regulations in the past," the authors say.

Once a major payments processor in Europe, Munich-based Wirecard AG filed for insolvency last year after it was discovered that $2.1 billion in cash was missing from its balance sheet and likely never existed.

Overall, the resiliency of the payments market surprised the BCG analysts. They had projected total payments revenues in North America would grow at an anemic 2% annual rate for several years following the lockdowns and other restrictions stemming from the pandemic. But the market recovered faster than forecast, and they now expect a 5.8% average annual growth rate through 2025. That forecast results in $609 billion in 2025, up from $459 billion last year.

By comparison, North American payments revenue (chart, page 6) grew at an 8.5% clip from $342 billion in 2015 to $474 billion 2019 before stumbling in 2020, which saw a 3.2% drop.

—John Stewart

USERS ARE HITTING TOO MANY BRICK WALLS IN E-COMMERCE

Despite consumers' expectation that checkout during an e-commerce purchase should be fast and instinctive, most online merchants still have checkout procedures that add unnecessary friction, says a survey from online-payments powerhouse Stripe Inc.

The report, released in October, reveals that 96% of 200 North American e-commerce merchants surveyed had committed at least five basic errors in their checkout process. Some 56% of customers took more than three minutes to complete a purchase, Stripe says.

When errors occur that complicate and extend checkout, consumers are more likely to abandon a purchase if it takes more than a minute. During the past year, 17% of consumers that abandoned their shopping cart cited a lengthy and complicated checkout process as the reason, says Stripe.

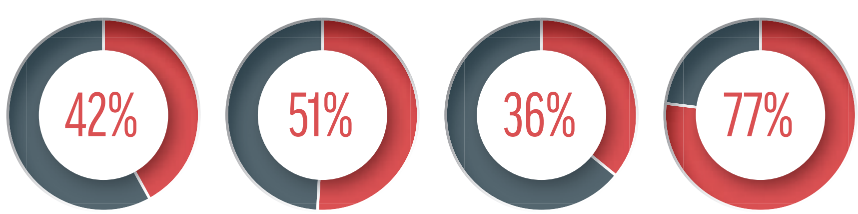
"The user experience for online shoppers has not included the essential optimizations that create a high-performing (and high-converting) checkout experience," Josh Ackerman, senior product manager for Stripe, says by email. "There are dozens of optimizations that can make it seamless for consumers to complete the checkout process."

Ways e-commerce merchants can streamline checkout include displaying descriptive error messages when inaccurate payment details are entered and auto-completing addresses. "Merchants have also seen the massive benefits of saving consumers' payment-instrument details for future use," Ackerman adds.

One of the most common mistakes at checkout is having a poorly designed payment form into which consumers enter their card data, as well as shipping and home addresses.

Of the merchants surveyed, 42% made at least three mistakes when formatting payment information or displaying error messages. Mistakes

THE TOP PAYMENT FORM ERRORS



42% of top businesses made at least three mistakes when formatting payment information or displaying error messages[1]

51% did not support address auto-complete

36% did not format card numbers in blocks of four digits for easier data entry

77% did not allow customers to save their payment information for future use

1. Mistakes include not alerting customers when they entered an invalid card number or tried to pay with an expired card

Source: Stripe

include not alerting customers when they entered an invalid card number or tried to pay with an expired card. In addition, 51% did not support address auto-complete,

Thirty-six percent did not format card numbers in blocks of four digits for easier data entry, and 77% did not allow customers to save their payment information for future use.

A prominent factor behind the mistakes and omissions is that e-commerce merchants tend to focus nearly all of their time and resources on servicing customers, as opposed to the checkout experience. "At the end of the day, many businesses simply don't have the resources to spin up an optimized, end-to-end user-checkout experience," Ackerman adds.

As an example, an e-commerce site that adjusts the display of content to the screen size of the device is critical. Indeed, 62% of consumers surveyed by Stripe say it's "very" or "extremely" important for a Web site to be mobile friendly, as half of those respondents say they do more than 50% of their shopping from a mobile device.

Supporting digital wallets, such as Apple Pay or Google Pay, can create an opportunity for e-commerce merchants to offer a one-click payment process that, on average, is three times faster than manually entering payment information, according to the report.

"It's clear more and more consumers strongly prefer making purchases via mobile. But merchant adoption of essential payment methods like Apple Pay and Google Pay are significantly below what you may expect," Ackerman says. "Oftentimes, this is either because the merchant isn't aware of just how much of their business is driven by mobile traffic, or they've yet to make the investment to enable Apple Pay and Google Pay within their checkout flows."

That being the case, one design feature that can significantly enhance checkout on a mobile device is to display a numeric keypad at checkout for entering credit card numbers or expiration dates, Ackerman says.

—Peter Lucas

MONTHLY MERCHANT METRIC

Q2 2021 Account Attrition and Growth

Account Attrition:
Total attrited accounts in given period divided by total portfolio active accounts from same period of the prior year.

New Accounts Added:
Total new accounts in given period divided by total portfolio accounts from same period of the prior year.

Beginning	Account Attrition	New Accounts	Ending
100.0%	-20.4%	+21.7%	101.2%

Note: This is sourced from The Strawhecker Group's merchant data warehouse of over 3 million merchants in the U.S. market. The ability to understand this data is important as small and medium-size businesses (SMBs) and the payments providers that serve them are key drivers of the economy. All data are for SMB merchants defined as merchants with less than $5 million in annual card volume.

Payments Experts. Powerful Data. THE STRAWHECKER GROUP

THE LATEST EMVCO UPDATE AIMS AT STREAMLINED AUTHENTICATION

Stronger authentication for voice-activated payments, as well as streamlined identity checks and support for a wider array of authentication technologies for online payments generally, are included in the latest version of EMVCo's 3-D Secure standard, the global payments-standards body said in October.

EMVCo said its latest update, version 2.3, responds to the increasing use of technologies to initiate payments through smart speakers and other devices connected to bank accounts and other funding sources through the Internet of Things.

The update provides for an SDK model to make it easier to apply 3-D Secure to payments through "traditional" and "non-traditional" channels and devices, EMVCo says in its announcement. An SDK, or software development kit, is a set of tools packaged to ease the creation of new applications.

The update also reflects a collaboration among EMVCo and two other standards bodies, the World Wide Web Consortium (known as W3C) and the FIDO Alliance, that is intended to broaden the tools issuers and merchants can deploy to identify users, EMVCo says.

Other provisions of the update include support for: device binding, which can link a user to his or her device for future authentication; so-called automated out-of-band transitions, in which a consumer might move from a merchant application to an app used for authentication; and more data linked to recurring transactions, which is expected to make it easier for issuers to authenticate consumers when they buy repeatedly from the same merchant.

In total, the enhancements to the standard are meant to help simplify the process of making sure persons making transactions online are who they say they are, EMVCo says. "Fighting payment fraud and reducing checkout friction is key to businesses delivering a safe and convenient online shopping experience for their customers," said Robin Trickel, chair of the EMVCo Executive Committee, in a statement.

The update is the first since version 2.2, which was published in December 2018, and comes at a time when online transactions have risen sharply as a result of the pandemic and the restrictions various governments have imposed in response.

Founded in 1999 to develop technical standards for payment security, EMVCo is owned jointly by American Express Co., China UnionPay, Discover Financial, Japan's JCB card network, Mastercard Inc., and Visa Inc.

—John Stewart

WHAT TO EXPECT FROM CHOPRA'S CFPB

Payments observers are expecting a tougher regulatory approach from the Consumer Financial Protection Bureau with the confirmation last month of Rohit Chopra as executive director of the 10-year old federal agency.

"The agency will likely return to the days of director Cordray," predicts one close observer who asked not to be named. Richard Cordray served as the CFPB's first director before stepping down in 2017. His aggressive enforcement approach came in for frequent criticism from the financial-services industry.

"The consumer financial-services and payments industries are in for a rough patch," adds Eric Grover, principal at Minden, Nev.-based payments consultancy Intrepid Ventures.

Indeed, the 39-year-old Chopra, who was confirmed by the Senate on a 50-48 party-line vote with Democrats lining up behind him, is considered a stringent critic of financial-services firms' practices. In a previous stint at the CFPB as an assistant director, he was particularly concerned with the practices of lenders financing student loans. In 2018, he joined the Federal Trade Commission as a Democratic appointee to one of five commissioner seats.

DIRECTORS OF THE CFPB SINCE ITS CREATION

(with date they took office)

Richard Cordray
January 4, 2012

Mick Mulvaney
November 25, 2017

Kathy Kraninger
December 11, 2018

David Uejio[1]
January 20, 2021

Rohit Chopra
October 12, 2021

1. Named an acting director

At the CFPB, Chopra now succeeds acting director David Uejio, who took over the bureau in January upon the resignation of Kathy Kraninger, who had been appointed by former President Donald Trump in 2018.

Chopra joined the FTC as a commissioner in 2018 and now will lead the nation's financial-service regulator.

Chopra is widely seen by Democratic legislators as a strong advocate for consumers and a keen defender of working families. Republicans fear he will return the CFPB to what they saw as its readiness during Cordray's directorship to act beyond the limits of the bureau's legislated powers.

The CFPB's major thrust into payments is a massive rule governing prepaid products. The 1,600-page regulation, which had been in the works for years, became final in 2019 and extended beyond prepaid cards to other products, including in some cases digital wallets.

That same year, PayPal Holdings Inc. sued the bureau over the agency's definition of PayPal's wallets as prepaid products. A federal district judge in December issued a ruling favoring PayPal, but the implications of the case are likely to take time to play out, observers say. DT

—John Stewart

QUANTUM MONEY: GOOD NEWS, BAD NEWS

BY GIDEON SAMID
gideon@bitmint.com

QUANTUM ENTITIES ARE FUNDAMENTALLY OFFENSIVE to our experience and intuition. They are like a four-dimensional physical universe. We can't imagine a world with length, width, and height plus a fourth dimension. But we can handle this notion mathematically. The same is true for quantum entities.

The illustrious Richard Feynman, one of the framers of quantum physics, spilled the beans: "Nobody," he said, "understands quantum physics." But we can math-handle it and draw benefits from its weird behavior. The sharpest departure of quantum entities from ordinary, Newtonian entities lies in the recognition that quantum entities don't have measurable features unless and until we measure them. You are in good company if this sounds ridiculous.

And, what's more, we measure quantum with quantum. The combination of the quantum state of the measurement device and the measured entity is described in the mathematics that underlies quantum computing and also dictates that, if we measure one way, we get one reading, but if we measure in another way, we read something else.

What this means is that, by looking at quantum entities, we change them. We can use this weird feature to solve a very troubling cyber challenge. Hackers can sneak in, read your data, and, if they don't change anything, you will never be the wiser. Data written in quantum, by contrast, cannot be read without leaving the readers' footprints. This means that one can be convinced of the "virginity" of data. Using "quantum money," a payee and a payor can be sure that no one copied this coin.

Money is a means to get members of society participating in an organized plan of action, solving problems. Quantum money could be much more efficient as a motivator, activator, and problem-solver. The consequences hidden in the switch from Newtonian entities to quantum implements may be far greater than we can imagine so early in the game. Indeed, quantum money is still a far-off destination on the technological roadmap.

Still, small but important steps have been taken. For one, money is constructed from a "capsule" of meta data, plus a "payload" comprising regular but quantum-randomized bits. This separation of the capsule and its payload allows for digital cash registers, where the payload is housed while the capsule is handed over and traded the way checks have been for years.

Payment is settled when a check is cashed. Similarly, with quantum digital coin, the communication of the payload is the act of settled payment. The payloads are preserved in a digital cash register. These digital cash registers may be housed and protected in financial institutions, but they may also be stored (capsule and payload) in one's phone or hard wallet, and be used for cash-equivalent payment with privacy, thus achieving payment continuity when the Internet is down.

Payment systems hinge on data ledgers, which are vulnerable to hackers. The blockchain is one innovative solution to maintain ledgers' integrity. Alas, it relies on shaky protective mathematical trusses. Quantum technology, by contrast, can be used to secure ledgers in a quantum-technology "rock." The data in the rock is off the digital grid and is expressed through the atomic structure of the rock.

The downside of the new money technology is that it may create a currency that can flow, accumulate ,and be totally undetectable, creating hidden power centers that are rich enough to change the course of history and make democracy an empty shell. If we choose to design the future of money with the power of quantum, we should be alert to the harm the same technology can inflict. DT

THE CHIPS ARE DOWN. SO ARE THE CARDS

BY BEN JACKSON
bjackson@ipa.org

WALLETS COULD BE A LOT EMPTIER by this time next year, and it will have nothing to do with the spending capacity of consumers.

As *Digital Transactions* reported in September ("Out of the Chips"), a pandemic-driven shortage in computer chips is hitting the payments industry. Now, as cards expire, issuers might find it difficult to get new plastic into customers' wallets.

The chip shortage has drawn attention from Congress, and there is the possibility that the federal government may step in. Industry sources tell me that card production requires a small number of chips in comparison with other products, so they are worried that cards will not get access to a fair share of chips. The risk is that the squeakiest wheels may get the most attention as everyone from the payments industry to auto manufacturers vie for a limited supply.

In the U.S. market in 2020, there were almost 1.2 billion chip-enabled cards in circulation, accounting for almost 73% of card-present transactions, according to EMVCo. The Federal Reserve's 2019 Payments Study showed there were more than 131 billion card transactions in 2018, a number that has surely grown since the onset of the pandemic.

With this kind of volume running over chip-enabled cards, it is easy to see how even a minor disruption in the availability of chips, and thus cards, could hamper sales at retailers, restaurants, and anywhere else that accepts cards.

Consumers and businesses may also have a problem. With an ongoing coin shortage, it is not as though the economy can just flip to cash for all our commerce needs. Even then, cash would not help online sales, which, according to the Census Bureau, account for 13.3% of U.S. sales. The second quarter 2021 e-commerce estimate increased 9.1% from the second quarter of 2020, the Bureau said.

In the short term, the industry is looking for solutions, but even ideas that seem obvious have pitfalls.

Could providers just extend the life of cards by reprogramming the chips? Doing this would require reprogramming for merchants' point-of-sale terminals and for systems at the issuer level. Additionally, issuers would need to find a way for cardholders to get their chips reprogrammed. The logistics alone are daunting, especially if consumers need to reprogram multiple cards. Also, this solution does nothing to address the problem of lost and stolen cards.

Will all this lead to a cardless future? One workaround would be to provision replacement cards to mobile devices or online wallets. That's a possibility, but even now about one-third of merchants still do not accept contactless, according to a study from the National Retail Federation.

The payments industry does have some tools to navigate the crunch. It is taking stock and managing inventory by tracking it closely, ordering cards early to accommodate longer lead times (up to 36 weeks by some reports), and carefully assessing whether there are ways to extend the life of older inventory. Another tool for issuers is reconsidering the timing of events, like rebranding, that would require mass reissuance of cards. Finally, payments providers are recognizing that the law of supply and demand still applies. Accordingly, they plan to budget for higher chip prices.

Even so, if the federal government, or even manufacturers themselves, start to develop plans to allocate chips, they need to do so with a holistic view of the economy in mind. Merchants, product manufacturers, and card providers are interdependent. Any attempt to pick winners and losers when it comes to who gets the chips will result in everyone losing. DT

ATTRITION'S COMPLEX CALCULUS

Merchant attrition is actually a little lower than it was before the pandemic. But don't get too excited. The total picture is a little more complicated than that.

BY **JOHN STEWART**

FIRST, THE GOOD NEWS. Merchant attrition, expressed as a percentage of all accounts with $5 million or less in annual credit and debit card volume, has not only returned to pre-pandemic levels, it's actually somewhat lower (chart, page 14).

After soaring to a disturbingly heady 26.7% in the second quarter of 2020, the attrition rate had calmed to a level of 20.4% a year later, below the rates seen even in the same quarter of 2018 and 2019, according to The Strawhecker Group, an Omaha, Neb.-based research firm.

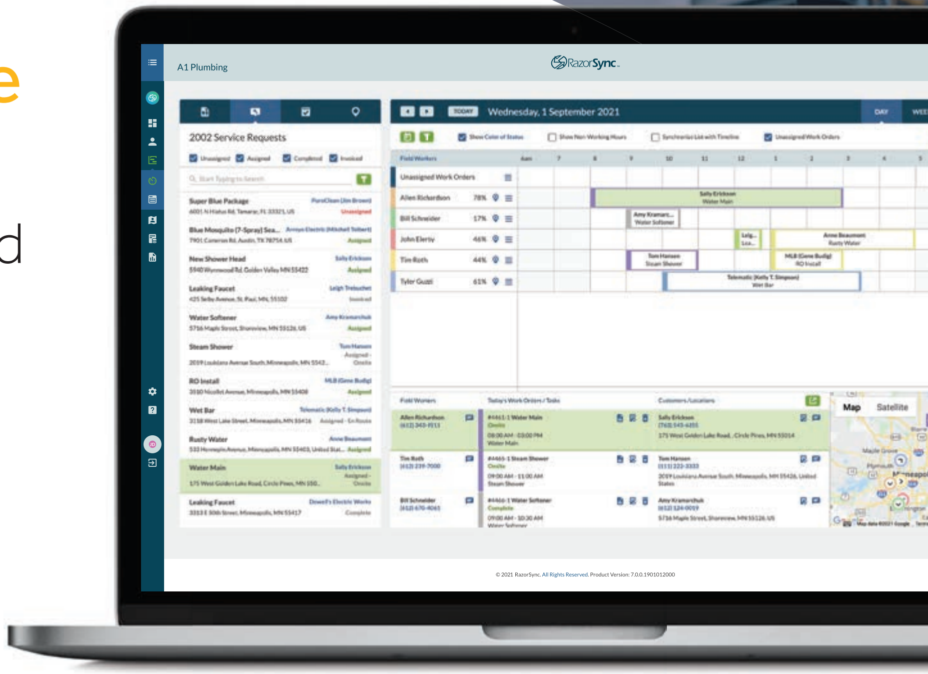
"It was a little rough 12 months ago," notes Josh Istas, senior director of analytics at Strawhecker, with a hint of understatement. "Things are trending in the right direction." Then, he adds a caveat: "There are a lot of things we don't know yet."

Indeed, there are. The pandemic claimed its share of victims among merchants, but many sellers have contrived to tame it with technologies like online ordering and contactless payment. Now, a more complex—and quite possibly, more difficult to master—set of problems confront the independent sales organizations and other merchant-service providers looking to capitalize on the improvement inherent in those attrition numbers.

'SO MUCH FRUSTRATION'

The complicating factors aren't new, but they are taking on greater salience as ISOs and independent software vendors vie for merchants that aren't on the cusp of failure but are eager to switch to any provider that can cut them a better deal or provide new services.

The general movement to digital technology in retailing and hospitality—a legacy of the pandemic—has much to do with this, as some ISOs struggle to meet client demands. "Agents are losing merchants because they can't give proper support, and they're frustrated. There's so much frustration out there," says Denise Shomo, president of Cutter


A1 Plumbing
RazorSync
2002 Service Requests
Wednesday, 1 September 2021

LLC, a Wyomissing, Pa.-based firm that specializes in acquiring merchant portfolios.

At the same time, conventional ISOs must contend with competition from integrated-payments providers, the outfits that weave payments capability into the general business software they develop.

“There’s increased attrition if all [ISOs are] doing is transaction processing. With tightly embedded payments, attrition is next to nothing,” contends Todd Ablowitz, co-chief executive of Denver-based Infinicept Inc., a platform provider for payment facilitators, the practitioners of embedded payments.

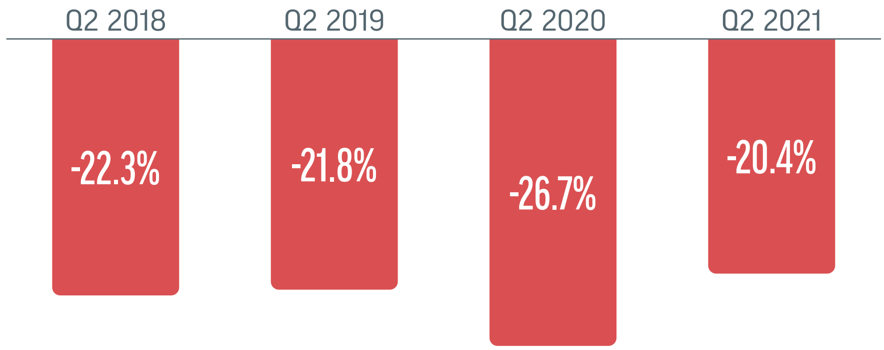
As processors scramble, not so much to keep merchants afloat as to keep them, period, that embedded-payments concept is not without it adherents. Greg Cohen, chief executive of Novi, Mich.-based ISO Fortis Payment Systems LLC, admits merchants “don’t always tell you” why they’re leaving for a rival processor, but, he adds, “a more integrated business will win where a less-integrated business will lose.”

So, how are conventional ISOs—if such a phrase is still meaningful—responding? They’re far from conceding defeat in the battle against attrition. For VizyPay LLC, based in Waukee, Iowa, much of the attrition they’re seeing in their portfolio can be chalked up to changes in ownership. It’s a crap shoot whether the new owner will stay with VizyPay, says Frank Pagano, the company’s executive sales director, and sometimes he or she doesn’t.

His strategy is to detect signs of attrition and get to merchants before they even start talking about moving on. “When we get a cancellation call, there’s not much we can do,” he says.

ATTRITION BY THE NUMBERS

Small and medium business (SMB) annual account attrition



Notes: Total attrited accounts in given period divided by total portfolio active accounts from same period of the prior year. SMB is defined as merchants with less than $5M in annual credit/debit volume.

Source: The Strawhecker Group’s Acquiring Industry Metrics (AIM) platform of 4 million small and enterprise card-accepting merchants in over 300 industries.”

“Once they’ve made that decision, it’s too late.” Instead, the company uses the information it has to try to predict which merchants may be itching to switch, and then confront the underlying issue.

Then there’s the question of merchants that could be at the start of a downslope financially. One particularly effective tool here, Pagano adds, is a cash advance to help merchants before they lose the struggle to stay solvent. “A lot of the attrition we see is because the merchant is not able to pay the standard fees,” he says.

‘SIGNING UP’

The tool in the effort to get to merchants before they announce they’re leaving is called predictive analytics, and it’s starting to win popularity among processors as they work to keep merchants from moving to competitors. Once these merchants are identified, the solution can be new payments technology.

“[M]erchants with NFC are 5% less likely to leave than merchants without NFC. Additionally, merchants with an online presence are 2% less likely to leave than merchants without an online store,” notes Arcum Partners, a firm that specializes in helping acquirers predict attrition, in a paper posted on its Web site. “NFC” refers to near-field communication, the technology that makes contactless payments possible.

VizyPay has been busy developing this approach. It keeps a list of the 50 or so merchants it believes are most likely to leave the portfolio in the coming month. Then, it works on “how we reach out and offer a solution,” says Pagano. “We’d love to get in front of an individual before it’s too late.”

The “solution” for some processors could be to enable merchants to discount for cash. With just two states—Connecticut and Massachusetts—still prohibiting the practice, some ISOs are looking to it as a means of tethering merchants to their platforms.

And merchants’ willingness to at least consider the idea has grown in recent months, another legacy of the pandemic, some observers say. “Before Covid, merchants were not terribly receptive. Now, merchants are signing up,” says Paul Rianda, a

California-based attorney who specializes in merchant acquiring.

Programming at the terminal for cash discounting—sometimes called surcharging—allows merchants to offer a lower price at checkout if the customer pays in cash rather than using a credit card. By encouraging cash sales, the practice allows the merchant to sidestep the discount fees card networks set for acquirers, which pass the levies on to merchants, typically with a markup.

'HARD TO DISCERN'

The practice could win yet more adoption if Visa Inc. and Mastercard Inc. follow through this spring on adjustments in credit card interchange rates that could net issuers nearly $900 million in additional revenue,

'With tightly embedded payments, attrition is next to nothing.'

—**TODD ABLOWITZ**, CO-CHIEF EXECUTIVE, INFINICEPT INC.

according to estimates calculated last year by research firm CMSPi. That total is the net of rate increases in various categories and cuts in a few others. The two big networks have postponed the adjustments for two years running, and aren't expected to hold off yet again.

The technique can help bind a merchant to an acquirer portfolio, since it benefits merchants' bottom line and may not be available from another provider. To be sure, not all observers are seeing growing demand. "Sales agents are pushing [cash-discount software], but we don't see a lot of merchants asking for it," observes Cutter's Shomo. She adds, however, "I do think we'll see more of that with the coming price increases."

One thing is for sure. Predicting attrition and managing technology to reduce its toll on merchant portfolios are two trends likely to only grow stronger in the wake of the pandemic. Attrition rates have calmed down remarkably in the past year, but, as Strawhecker's Istas says, "it's hard to discern" at the moment whether that trend has staying power. DT

security

NEW TWISTS IN ONLINE FRAUD

No longer content to use a stolen credit card, criminals are targeting e-commerce merchants for everything from customer account data to loyalty points to BNPL fraud.

BY **PETER LUCAS**

CRIMINALS FOLLOW THE MONEY, and, with e-commerce booming and more merchants selling online than ever before, it's no surprise that fraudsters are flocking to the online channel. Fraud is nothing new for e-commerce merchants. What's changed are the methods criminals are using to perpetrate it.

They're actively targeting consumer accounts on merchant sites to commandeer those accounts and gain access to the data within them. They can use this data to create synthetic identities or sell it on the black market.

Criminals' focus on account takeover is tied to the fact that identity verification is a primary element in the payment process. Taking over a consumer's account on a merchant's Web site gives criminals access not only to the consumer's personal data, but also to any payment information the consumer may have stored in the account.

With access to the customer's payment data, criminals can make purchases with that e-commerce merchant. To ensure they receive the goods, criminals simply need to change the shipping address on file or make the purchase online and pick-up curbside.

'MASSIVE ACCELERATION'

One of the most common methods used for account takeover is credential stuffing. Thanks to data breaches becoming a common occurrence, criminals can purchase lists of consumer passwords and user names on the dark Web. The cyberthieves then launch an attack that forces that data into customer accounts until a combination is found that opens an account.

Once in control of that account, criminals can use the password to try to take over other accounts the victim may have elsewhere on the Internet, cybersecurity experts say.

Criminals are even using the information in a customer's account to fraudulently apply for a buy now, pay later loan that will never be repaid, says Erika Dietrich, head of merchant payments analytics & optimization at ACI Worldwide Inc.

"We're seeing a huge increase in credential stuffing as part of account-takeover attempts," Dietrich says. "Once in control of an account, criminals can change the attributes of the account to perpetrate fraud, such as changing the shipping address on the account after making a fraudulent purchase."

Besieged by so many attack vectors, e-commerce merchants are at risk of losing more than $20 billion in 2021 to online fraud, compared to $17.5 billion in 2020, according to Juniper Research. The projected losses represent a 14% year-over-year increase.

"When the pandemic hit, there was a massive acceleration of digital fraud in the space of a few months, and that acceleration is continuing," says Rich Stuppy, vice president and senior customer experience leader at Kount Inc., which provides fraud-prevention and detection solutions.

'A STEP AWAY FROM CASH'

Helping fuel the rise of e-commerce fraud is that many merchants that did not have an online presence prior to the pandemic raced to launch a site. In their rush, many merchants did not take all the necessary precautions against fraud.

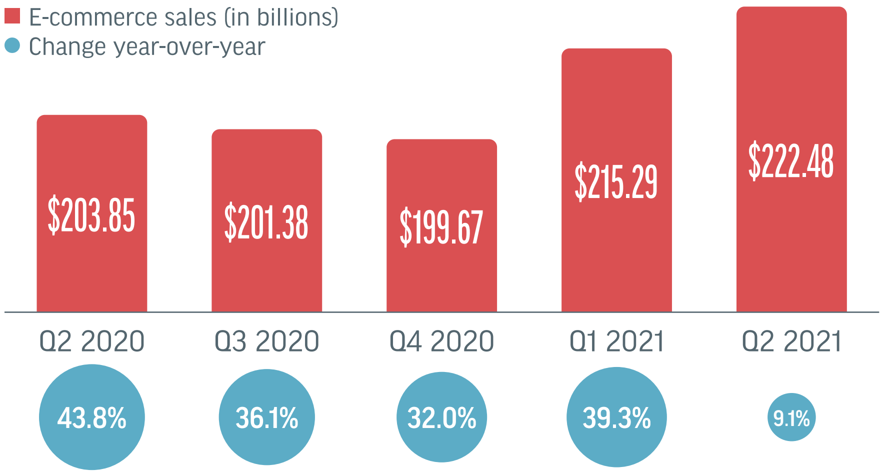
That opened the door for criminals to get creative. "Criminals are attacking e-commerce merchants differently now and targeting all touchpoints in the customer journey to extract data they can monetize or fraudulently [use to] obtain items of value," Stuppy says.

One targeted item of value is loyalty points. Once in control of a consumer's account on a merchant site, criminals can access any loyalty points in the account. If there are enough points, criminals will use them to purchase a product that can easily be resold or cash them out, if that option exists.

Another tactic is to transfer loyalty points from a consumer's account to another controlled by the criminal, who can then sell access to them online.

Prior to the pandemic, airline and hotel miles were popular targets, but with air travel and hotel stays dropping off considerably, criminals have turned their attention to retail loyalty programs, fuel rewards, and even supermarket loyalty programs, cybersecurity experts say.

ONWARD AND UPWARD WITH ONLINE



Source: U.S. Department of Commerce

Cybercriminals will also sell loyalty points direct to unsuspecting consumers by advertising on a social-media site, such as Twitter or Instagram. The deal might allow a consumer to purchase $100 worth of loyalty points for $50, for example. The unsuspecting consumer is typically instructed to pay using cryptocurrency, which makes the transaction even more anonymous. Once payment is received, the points are transferred.

A big part of what makes loyalty points a prime target for criminals is that most consumers forget they have accrued them and often neglect their loyalty accounts. That means they are likely to discover their points have been stolen well after the fact. "Loyalty points are a step away from cash," Stuppy says.

Another new wrinkle in the fraud threat is the use of Internet bots—applications programmed to perform repetitive, pre-defined tasks—to attack merchant inventories by placing bulk orders using thousands of different customer identities for popular items that can be quickly resold.

Such attacks are a nightmare for e-commerce merchants as they not only lose the inventory to fraud, they also have to turn down sales to legitimate customers. That can hurt customer loyalty, says Dan Holden, vice president of cybersecurity at e-commerce platform provider BigCommerce.

Criminals are also using bots to test thousands of stolen credit card numbers at one time preparatory to credential-stuffing attacks. "Malicious bot attacks really ramped up during the pandemic, particularly inventory scams," says Holden. "These types of campaigns are increasingly complex and sophisticated, and detecting them can be really challenging, since they're built to mimic human behaviors and appear like real customers to the unsuspecting retailer."

'FRAUD IS A PROFESSION'

To guard against the increasing sophistication of criminal attacks, cybersecurity experts recommend merchants deploy fraud-detection engines.

This technology uses artificial-intelligence applications that continually learn about customer-behavior patterns to reduce the risk of false positives, which can cause legitimate transactions to be declined. Decline rates for e-commerce purchases are in the 15% range, compared to about 1% in the physical world, Stuppy says.

Another advantage of artificial intelligence is that it makes it harder for criminals to beat fraud screens. "Rules-based systems are built around data points, and criminals have shown they can engineer fraud schemes that get around those data points to beat the rules," says Colin Sims, chief operating officer at Forter, a provider of fraud-prevention technology. "Rules-based solutions began showing their limitations about 10 years ago,"

Effective fraud prevention also requires e-commerce merchants to take a multi-layered approach by deploying fraud-detection tools at every stop along the customer journey. "Frauds trends can change daily, hourly, even by the minute," ACI's Dietrich says. "Merchants need to deploy multiple fraud-detection tools at every customer touchpoint, not just one or two."

With no sign of e-commerce fraud slowing down any time soon, cybersecurity experts say e-commerce merchants must be more diligent when it comes to fighting fraud and preventing false positives. The latter can be quite harmful, as many consumers who took to shopping online during the pandemic have made it a regular habit. They could be easily driven away if declined because of a false positive, experts say.

"Fraud is a profession, and criminals have better access to data that can help them perpetrate fraud by manipulating identities," says Sims. "The challenge for merchants is to unmask a criminal when he shows up with a manipulated identity." DT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15TH ANNUAL

THE 10 MOST PRESSING ISSUES IN E-PAYMENTS

After more than 18 months of pandemic, are you on the road to normal? In this, our annual catalog of woes and worries, we shine the spotlight on that road's biggest potholes.

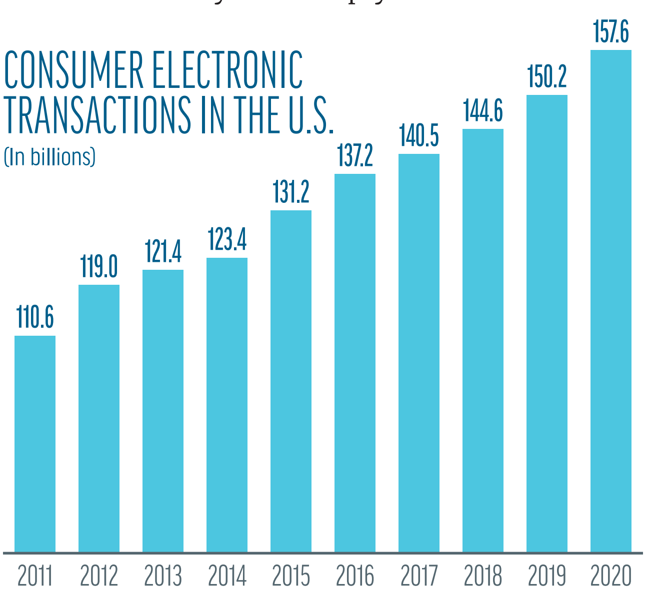
BY PETER LUCAS, JOHN STEWART, AND KEVIN WOODWARD

WELL, NOBODY SIGNED UP FOR THIS, RIGHT? More than a year-and-a-half after what had been a booming economy came to a screeching halt, the ill effects of the Covid pandemic are still asserting themselves in the payments economy: chip shortages, hard-to-find labor, shipping delays, merchant attrition, inflation, online fraud, you name it.

We don't have any special wisdom on when all this will be resolved and business will return to its pre-Covid state. Much, after all, depends on how soon the virus can be tamed and the overall economy recovers. We wish we could say when that will be.

But we can lay out what we see as the biggest issues payments professionals are now facing, in the hope that by being aware of these issues, professionals can face them squarely and work out solutions sooner. Yes, many of the issues you'll read about in the following pages were caused or exacerbated by the pandemic. But that doesn't mean you have to wait for Covid to wither to begin tackling them.

In fact, delay is likely only to make matters worse. And there is cause of optimism. Not only can these problems be solved or reduced, there is reason to believe the payments economy is more resilient than some may believe. There is a great deal of ruin in a nation, as the great 18th-century Scots economist Adam Smith said, meaning it takes a whole lot of bungling at the top to collapse a national economy. Same for payments.



Note: Figures include all consumer-based card and ACH volume.
Source: Digital Transactions estimates

1 Debit's Routing Rumble

The ink was barely dry on the law 10 years ago that required all debit cards to offer merchants at least two unaffiliated networks for processing before trouble started. That law was the Durbin Amendment, and its routing requirement was supposed to help hold down debit-interchange costs for merchants by fostering more competition among networks.

But merchants have complained almost from the start that they're not getting that network choice. The increasing use of PINless debit, which came with consumers' adoption of online commerce, along with special technologies like tokens to mask account numbers, have complicated the picture. Merchants say the big global networks have effectively gutted the routing requirement and largely kept debit volume to themselves. The networks argue nothing is standing in the way of network choice.

The dispute has the ear of the Federal Reserve, which is working to revise the rule it wrote 10 years ago to implement the Durbin law. And much has changed in that decade. The so-called single-message networks, so-called because they combine authorization and settlement in one message, say they can handle PINless debit just as adroitly as Mastercard and Visa.

So the routing dispute, instead of having been solved, is as hot at ever ("Debit Card Pricing at Full Boil," October). Merchants accuse issuers of favoring the two big networks. Issuers argue merchants are oversimplifying a complicated picture. Who's right? It may take yet more litigation—along with the new Fed rule—to sort it out.

Meanwhile, other regulators are nosing in. Both the Department of Justice and the Federal Trade Commission have probed Visa's practices. So the Fed may issue a revised routing rule, but it's far from certain that will be the end of the matter.

2 The Dark Side of BNPL Mania

Despite the popularity of buy now, pay later—44% of consumers say they have used BNPL options to purchase an item they needed, according to personal-finance company Credit Karma LLC—delinquencies are becoming a serious problem.

Of the consumers that have used BNPL—which has been heavily promoted to consumers as a way to stretch their buying power during the economic meltdown that occurred as a result of the pandemic—a whopping 34% have missed at least one payment, Credit Karma says.

One culprit behind mounting delinquencies is that consumers who are not used to financing purchases they would otherwise pay for in full at checkout are more inclined to forget to pay their bill when using BNPL.

"[With BNPL] it's easier than ever to purchase [an item], and finance it, without even thinking about the implications of the purchase," says Colleen McCreary, consumer financial advocate at Credit Karma. "It's this disconnect between making a purchase and actually paying for it where consumers can get in trouble … for some it comes down to forgetting to make the payment versus. not actually having the funds to make the payment."

Surprisingly, 50% of BNPL users surveyed by Credit Karma aren't using BNPL to purchase big-ticket items, but instead to pay for purchases of $250 or less, on average.

Among the heaviest users of BNPL are Gen Zers and millennials, more than half of whom have used BNPL compared to 42% of Gen Xers and 35% of Baby Boomers, who tend to be more financially stable, McCreary says.

3 No Near-Term End to the Chip Shortage

It's been nearly two years since the shortage of semiconductor chips used in point-of-sale terminals began, and terminal manufacturers are still scrambling to recover. Lead times of 26 to 30 weeks for terminal orders that, pre-Covid, took 12 weeks to fill are not uncommon, payment industry experts say.

While it's still too early to predict when the shortage will ease, expectations are for capacity constraints to continue well into 2022, experts say.

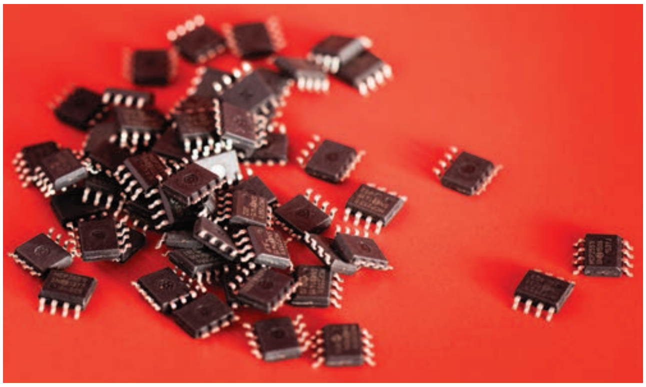
Not surprisingly, the shortage is raising chip prices, especially on the spot market, as terminal manufacturers routinely have to settle for orders about half the size of what they typically received prior to the shortage, says Andrew Dark, executive chairman for Miura Systems, a United Kingdom-based provider of mobile payment solutions.

Further complicating matters is that finding alternative chip suppliers is not a sure-fire solution. In many case, new suppliers must undergo certification to meet processor and network specifications.

"Even if you find a new chip source, you have to get them certified, which can take 12 to 14 months. That's not a scalable solution," Dark says.

The best remedy is to temper customers' expectations from the outset. "There is nothing worse than telling a customer you can't meet their order after it's been placed," Rob Hayhow, vice president, North America, for Equinox Payments LLC, told Digital Transactions in August as part of the research for the magazine's September cover story, "Out of the Chips."

"The entire supply chain is stressed, not just for chips themselves, but the raw materials to make them, and customers need to know that," Hayhow said.



4 The Rising Menace of Ransomware

One of the biggest cybersecurity threats any company faces is a ransomware attack. The attack, while not new, involves criminals infiltrating databases, locking up the information inside the database by encrypting it, and demanding payment that can total millions of dollars in exchange for the decryption key.

Three drivers behind the rise in ransomware attacks are: they are a successful and lucrative business for criminals; criminals can be paid huge sums of money in cryptocurrency without drawing the attention of bank regulators, making their activity more anonymous; and criminals can set the ransom at a price they are confident the victim will pay, such as below the cost of repelling an attack once it occurs.

Flexibility when setting a ransom also reduces the odds of demanding a payout the company cannot afford. In these instances, even if the criminal erases the data, he still walks away empty-handed.

"Hackers used to copy large databases with customer data, then look for wholesale buyers that can be trusted, which is a headache," says Gideon Samid, chief technology officer for Bitmint, a McLean, Va.-based provider of cybersecurity solutions. "With ransomware, they need no partners, collect no data, and, most important, they can pare down their demand to make it [uneconomical] to recover their data from backups and other pricey, but useless protections."

Savvy criminal rings are even franchising the opportunity to launch a ransomware attack, because it is a more efficient way to monetize their efforts, cybersecurity experts say.

It is reasons such as these that are making ransomware the crime of choice, says Samid.

5 Contending With Chargebacks

Chargebacks—the ability of consumers to claim a refund through the credit card systems—have been a standard feature of the card business for years. But so have fraudulent chargebacks. And now, with e-commerce booming as more and more consumers buy more online, the problem is getting bigger and more complicated ("Many Unhappy Returns," April).

Part of the issue is that many consumers have resorted to the chargeback system to claim easy refunds once they decide they don't like the item they've ordered. Indeed, some observers say chargeback fraud committed by criminal gangs probably accounts for no more than 10% of all such losses. Most, they say, stems from so-called friendly fraud, where a dissatisfied consumer simply misuses the chargeback system to claim a refund instead of returning the merchandise. Mobile apps have made that sort of thing much easier, allowing consumers to start a chargeback with the touch of a button.

The result is that U.S. card-not-present fraud losses, which stood at $5.6 billion in 2019, are projected to climb to $7.9 billon this year, according to the research firm Aite-Novarica Group.

Merchants are frustrated because consumers are going straight to their banks to initiate chargebacks instead of dealing with the merchant, which would give sellers a chance to work things out. Again, those mobile apps have made this route a faster and smoother one, they say.

The result: Some observers figure that, while the industry might blunt their steady rise, chargebacks are unlikely to return to their pre-Covid volume.

6 Finding New Acquiring Markets

This one is that rare pressing issue that suggests its own potential solution—though pursuing that solution requires some grit and ingenuity.

Most acquiring markets, like hospitality and general retail, are pretty crowded with acquiring services. Even specialized niches, such as legal and medical offices, have attracted their own payments specialists. That's a problem, particularly for newer companies looking for an entry point. But some of the biggest acquirers in the industry are pointing the way into some brand-new markets that are hungry for transaction services. The big drawback? There are two: high risk and potential regulation.

Take online sports betting, which, as of October, was legal in more than two dozen states. Also, consider consumers' growing acceptance of cryptocurrency as a payment option. Both businesses represent new opportunities for acquirers.

In 2020, the global online-gaming market generated $21.1 billion in revenues, up 21.9% from 2019, according to Statista, a provider of market and consumer data. The increase is largely attributable to the Covid pandemic, which prompted consumers to turn to digital entertainment, including online gaming. As of year-end 2020, there were an estimated 1 billion online gamers worldwide. That figure is projected to reach 1.3 billion in 2025, according to Statista.

In the United States, about 90% of all sports bets were placed through digital channels, according to consulting and research firm Eilers & Krejcik Gaming. That's a significant amount of volume that didn't exist a just few years ago.

Another burgeoning market for acquirers is cryptocurrency acceptance at the point of sale. Several processors have added cryptocurrency acceptance for merchants in the past year, including New York-based OLB Group, whose chief executive, Ronny Yakov, believes crypto acceptance is the next logical contactless step for merchants.

Merchants that do not adopt systems to allow customers to transact in a variety of digital currencies may very well be left behind, Yakov says.

These two markets beckon, but payments providers must tread carefully. Reversals—both economic and legal—could happen at any time.

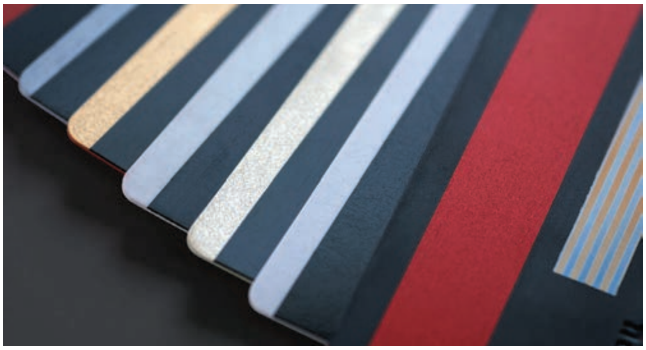
7 The End of the Magstripe

Though no other card brands have indicated they have end-of-life plans for the venerable magnetic stripe on payment cards, Mastercard Inc. announced this year it will cease requiring its credit and debit cards to bear the 3/8-inch-wide stripe by 2027 for U.S. issuers, and by 2024 in regions such as Europe. By 2033, the magstripe will be gone from Mastercard credit and debit cards.

Why now, when the magstripe has been in use for decades on payment cards? Globally, 86.1% of card-present transactions are chip-on-chip—the card and the point-of-sale terminal are both chip enabled. Of the seven regions monitored by EMVCo, the organization behind the EMV standard, only Asia, at 81% and the United States, at 72.8%, are below at least 95%.

While issuers will adapt, what's the impact overall on the payments industry? "The significance of the elimination of the magnetic strip beginning in 2027 is that it is simply the end of a technology's era," says Sarah Grotta, director of debit and alternative products advisory service at Mercator Advisory group. "The magnetic stripe [has] been on cards since the 1960s. Card manufacturers will need to alter their operations to skip the magnetic stripe encoding process."

That leaves merchants. How will they react? The U.S. EMV migration beginning in 2015 converted a lot of merchants to card acceptance, but many lack point-of-sale terminals that can accept chip cards. A potential risk is their reaction. "There are still many small merchants in the U.S. who will now need to swap out their terminal for one that accepts chip cards, or possibly simply stop accepting Mastercard cards if Visa, Discover, American Express, and other networks don't follow suit and continue to allow cards to use the old technology," Grotta says.



8 Credit Card Interchange

Visa and Mastercard earlier this year postponed changes to their credit card interchange pricing that would have cost merchants some $889 billion. That's according to estimates by researcher CMSPi, a retail payment consultancy, which took into account interchange increases but also some price breaks the two networks were planning.

The decision to hold off on the changes came as merchants continued to battle the doleful effects of the Covid-19 pandemic. Indeed, both networks were set to raise interchange rates in 2020 before backing off as the pandemic grew worse. Few industry observers believe the networks will postpone these changes yet again, though it's hard to tell how much they may tweak the rates.

Merchant acquirers pay interchange to issuers and then pass it on to merchants, typically with a markup. The pricing has been a bone of contention with merchants for years, sparking bitter arguments with the networks as well as massive litigation.

Now, some observers figure that if the two global networks follow through on raising rates this time, the move could spur merchants to do more than litigate. One possible move could be widespread adoption of discounts to consumers who pay with cash. Nearly all states have removed legal barriers to cash discounting, and many independent sales organizations now offer technology to ease the process at the point of sale.

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9 Platform Consolidation

Acquisition after acquisition can create a complicated array of platforms within a payments company. In years past, many sought to streamline the multiplication of platforms with the goal of reducing costs, simplifying the merchant experience, and making it easier to get a clearer picture of all of a company's transactions.

Today, the task is no easier as consolidation, acquisitions, and mergers proliferate. "A number of large card processors (primarily legacy providers) have multiple platforms, data centers, etc.," says Jared Drieling, senior director of market intelligence and insights at The Strawhecker Group, in an email message. "Most of these platforms can be considered legacy or dated, at least for some of the large processers."

"A lot of these platforms came with acquisitions," Drieling continues. "Thus, with these types of organizations, there is always a need to understand what systems are duplicate or complimentary (some may be underutilized or not utilized at all but still require maintenance), a need to reduce cyber-attacks and data-security events, the need to reduce overall costs, and the need for a single platform to remain flexible with the ever-evolving competitive landscape."

Platform consolidation, he says, allows companies to deal with these challenges. That's a key consideration, considering the competition from emerging fintechs. "To make omnichannel a reality for merchants, a processor offering a single platform may offer a more frictionless merchant experience as well as a more efficient means to managing such clients," says Drieling. "Matter of fact, a lot of the emerging players market a single platform as a key differentiator compared to the legacy card processors."

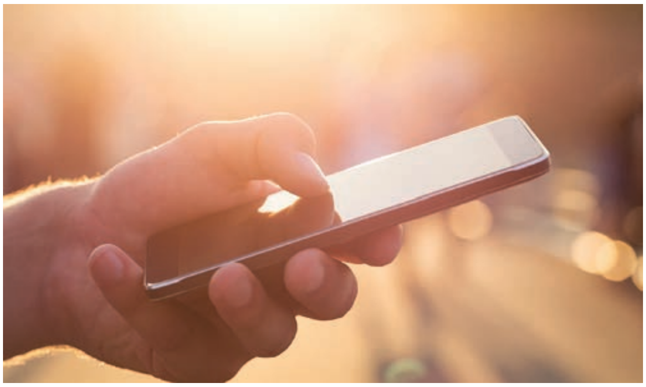
10 Will Same-Day ACH Hamper RTP?

Same-day ACH in the United States can track its origins to 2010, when the Federal Reserve began processing certain automated clearing house transactions on the same day. Now commonplace, same-day ACH was joined by real-time payments with the 2017 launch of the RTP network from The Clearing House Payments Co. LLC, an ACH operator along with the Fed, which intends to launch its own real-time payments service—FedNow—in coming years.

With both falling under the concept of faster payments, will they compete for the same customers and mirror each other's products? For now, the answer may be yes. Same-day ACH, given its breadth of availability within banking and payments, may be ahead of real-time payments for the moment, suggests Patricia Hewitt, principal at PG Research and Advisory Services, a Savannah, Ga.-based consultancy. "But ultimately, these are not the same transaction types, presuming their operation remains the same as we understand it today," Hewitt says.

"ACH is designed from the ground up to offer inexpensive access to funding accounts with enriched data using multiple settlement windows throughout the day," she adds. "The other, Real Time Payments, is designed to enable money to be moved in real-time or near-real time. So, it will depend on the use cases."

The Clearing House says its RTP network is accessible to financial institutions that hold 73% of U.S. demand deposit accounts. Same-day ACH transactions totaled 142.8 million in the quarter ended Sept. 30, up 52% from the year prior, says Nacha, the ACH administrator. Some organizations will "have a more natural affinity to ACH and others to RTP." There's room for both, Hewitt asserts. The industry fervently hopes she's right. DT



BILLING MEETS THE AGE OF THE APP

Bills and bill payments are going digital much faster now. That's good for some e-payment providers—but consumers are seeing benefits, too.

BY **KEVIN WOODWARD**

EVEN BEFORE THE PANDEMIC, a foundational shift in bill payments was under way. Now, digital bill payments have even more momentum.

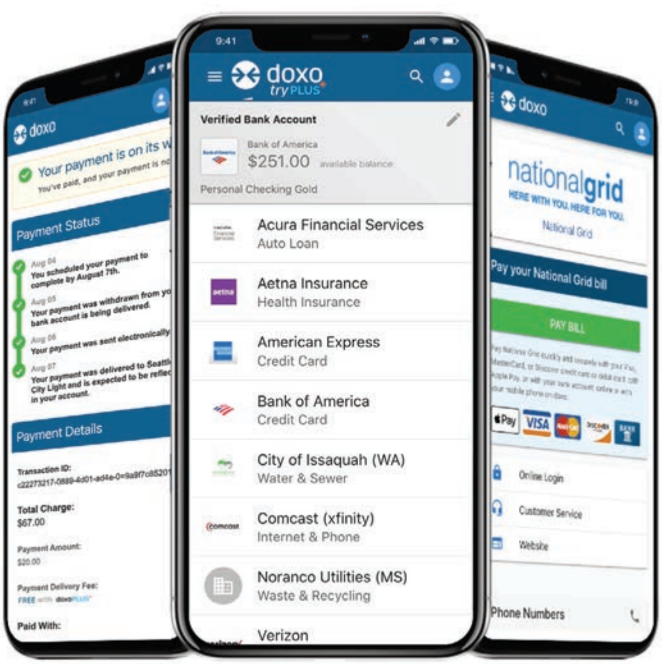
The push to digital payments prompted by the onset of the Covid-19 pandemic in 2020 definitely had an impact on the electronification of bill payments. But many observers assert that was going on even before the pandemic struck and shows little signs of waning.

One striking piece of data is that, according to Fiserv Inc.'s Expectations & Experiences research, based on data collected in the fourth quarter of 2020, 46% of seniors 75 years old or more used electronic billing, compared to 40% in 2019. And senior use of automatic payments jumped to 79% in 2020 from 65% in 2019. The report also found mobile bill pay use increased to 45% in 2020 from 40% in 2019.

Before the pandemic, the payments industry was changing as consumers gravitated to online devices, whether desktops, tablets, or mobile phones, and check use has fallen. In the most recent Federal Reserve triennial payments study released in 2019, the number of checks written fell to 16 billion in 2018 from 20.2 billion in 2015.

The continuing digitization of bill payments is significant. Household bill payments now total $2.75 trillion per year in the United States, found a report released in December from bill-payment provider doxo Inc.

"Even before March 2020, there was an ongoing trend to digital transactions, with an ongoing rise in the use of mobile phones, and the move from cash and checks to digital channels," says Sanjay Gupta, executive vice president at Miami-based ACI Worldwide Inc. "The pandemic accelerated that in a few dimensions."



More than 66% of payments made with doxo are done with a mobile device.

NO MORE STAMPS

One trend is non-paper billing options, Gupta says. More companies are offering, and more consumers are choosing to receive, bills in electronic format only. Consumers during the pandemic had an aversion to using stamps and the postal services. While U.S. Post Office locations were open during the peak of the 2020 lockdowns, many services, such as passport applications, were by appointment only.

Another trend is the use of mobile channels and mobile wallets, Gupta says. “We have seen growth of 50% in the use of mobile wallets in the past year,” he says. The third trend is the increasing ease consumers have in using digital services. In August, ACI added the PayPal and Venmo wallets from PayPal Holdings Inc. as options for consumers to pay their bills.

At doxo, vice president and cofounder Roger Parks sees similar trends. “For bill pay, it was as simple as people don’t go to the post office to get stamps,” Parks says. “They were forced to try online bill payment.”

Earlier this year, doxo and InComm Payments announced a service to enable billers to receive digital payments from customers that prefer to pay in cash. To initiate a payment, consumers capture a barcode generated via the doxo mobile app and scan it at the register of a merchant in InComm’s VanillaDirect network.

After scanning the barcode, the consumer pays his bill in cash through the merchant. Now, as consumers have set up their billing payments online, many are sticking with the electronic payment option, Parks says.

A related change is how the U.S. Postal Service is changing its delivery and pricing. Beginning in October, the Post Office changed its current three-day delivery metric for first-class mail to include an additional day or two for some pieces traveling longer distances. “They’re making mailing a check less desirable,” Parks says.

MAKE IT FREE

It’s not just bill-payment providers that are experiencing growth. Bill payments made with automated clearing house transactions are increasing, too. “Online bill payment is an inherent use case for remote payment that doesn’t rely on physical in-person delivery or processing of paper payments, statements, invoices, and remittances,” says a spokesperson for Nacha, the governing body for the nation’s ACH network.

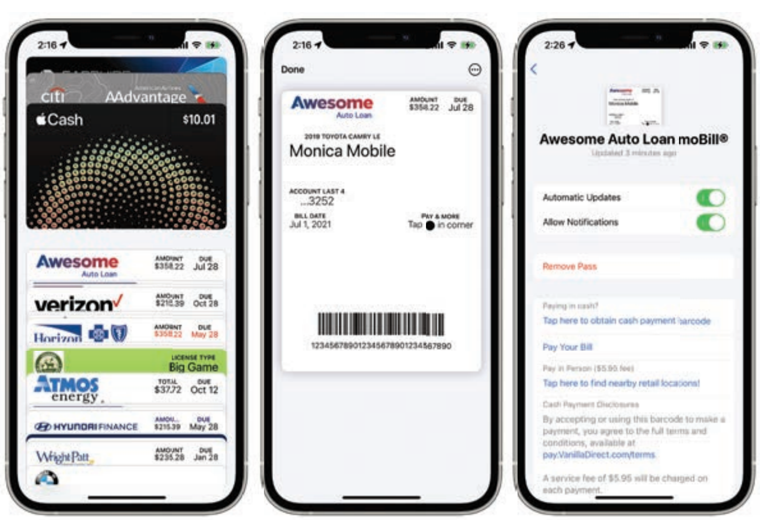
In the second quarter, Nacha says there were 2.2 billion consumer-initiated ACH payments on the Internet, an increase of 14.3% from the year prior and up 37.5% from the same quarter in 2019.

While external factors may be pushing many consumers to electronic bill payments, billers and their vendors are relying on that alone to motivate consumers.

Nacha says many billers provide an immediate credit when consumers pay a bill directly on the biller’s Web site. “This is a key benefit for consumers in paying bills online,” the spokesperson says. “During the pandemic, many consumers experienced delays in mail delivery, both for statements and for payments, so the reliability of online bill payment is also a key strategy.”

At Seattle-based doxo, making bill presentment and payment mobile friendly is a top priority, Parks says. More than 66% of the payments made with doxo—it works with more than 100,000 billers—are made on a mobile device, he says. Overall payment volume is up 70% year-over-year for doxo. More than 6 million U.S. households pay bills using doxo, he says.

Though the number of billers providing online payment is impressive, Parks says there are many more without that capability. If the holdouts now want to capitalize on the electronic payments surge, Parks says, the key is to ensure paying a bill is free, though he acknowledges many government entities charge a convenience fee.



ACI’s moBills: Bill pay and presentment in the wallet.

"If [users] have to pay a fee there's going to be less adoption," he says. Enabling the ability to link to a bank account for payment is another driver. And as more billers enable online payment, the broader inventory will result in more transactions.

RELIEVING APP FATIGUE

ACI's Gupta says today's strategy for online bill payments must keep the user experience paramount. "It's not just that it's a digital method, it needs to be convenient," he says. "People are coming to expect that in all areas."

Another element is to focus on a mobile-first experience, he says. Consumers are using the latest smart phones and have developed a comfort and expectation about what they can do with the mobile devices.

> 'Bill pay is a utility. You just want it to work.'
>
> —**ROGER PARKS**, VICE PRESIDENT AND COFOUNDER, DOXO

In 2018, ACI announced moBills, a service that puts bill presentment and payment in the mobile wallet on a smart phone. Participating billers send the information to consumers, and it appears in the Apple Pay or Google Pay wallet. Payments can be made directly in the wallet. Gupta says the wallet presentation may also alleviate some app fatigue consumers could develop from trying to manage separate apps for each business.

A good user experience is essential, Parks says. "We work with billers to make sure [the online bill pay option] is easy to find on their Web sites," he says.

These types of maneuvers will likely aid the digitization of bill pay, or at least these providers expect so. "We're seeing ongoing activity moving from checks and cash to digital," Gupta says. "We're seeing the rapid acceleration of the mobile channel. It's happening."

Concrete evidence is in the data, Parks says. "People react with the wallets and their time," he says. "Bill pay is a utility. You just want it to work. If it works, you do it again." DT

Another sort of unicorn.

endpoint

THE MYTH OF THE SUPER APP

Here's why it's more accurate to speak of super-power apps.

BY **PATRICIA HEWITT**

Patricia Hewitt is principal at PG Research and Advisory Services, Savannah, Ga.

MOBILE PAYMENTS IN THE UNITED STATES remain a minority, accounting for just under 4% of all payments made in-person. Even worse, 25% of U.S. consumers are still using paper forms of payment, including checks. Fintech-supplied bank accounts can be found on any street corner, all dependent on plastic cards.

Yes, the U.S. mobile-payments market has some catchup to do. And what better way to get the job done than to turn it over to a super hero? What we need is a solution that is faster than a speeding bullet, more powerful than a locomotive, and able to leap tall buildings in a single bound. Look, up in the sky, it's a bird, it's a plane, it's Super … App!

So, what makes a super app super? The origin—I call it the "originating service"—of any super app is the one feature that seeds its market share, such as chat in WeChat or ride-sharing in Grab or Go-Jek. From that market scale, one builds out more and more usability within the app.

The key characteristic of these originating services is that they must be used every day, even multiple times per day, which pins the app to its users' lifestyle. A lot of apps in the U.S.fit this bill, including top banking apps, the Starbucks App, PayPal, the Apple Wallet, Amazon, and Google. Also, other apps like Facebook, Tik Tok, and YouTube.

Next, let's consider the business model for these apps. The revenue source is a combination of businesses paying to be included in the app, value-add services, and advertising. Not included in this list is interchange fees and interest on loans or other penalty or usage fees. That's one reason most banking wallets have failed.

Culling our list of solutions with this filter leaves us with PayPal, Amazon, and Google, as well as social-commerce platforms like Facebook, Tik Tok, and YouTube.

How about acceptance? In the U.S., 56% of merchants have enabled digital-wallet payments at the point of sale. Anyone who's on the road a lot also knows that NFC terminals vary by retailer and by region of the country. Thus, our list gets smaller, now including PayPal and Google. But we can add in Apple Pay, Venmo, and any number of retailer-issued payment/shopping/ordering apps.

What about the available user base? In the U.S., 41% of the adult population is age 18 to 49. Some 36% are 50 plus. Our 2021 population growth rate is 0.58%. So the payments digital-first generations are smaller than payments' first-generation population, and our overall population growth is stagnant. Finally, the U.S.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is a relatively small market compared to geographies where super apps were born, such as China.

A REAL UNICORN

All this means that, in a mature payments market where population growth is slowing and digital-first groups are smaller than the legacy market, motivating a consumer to use one app over another is expensive and time-consuming.

What does all this mean for a super-app like WeChat in a market like this? Well, we already have big-picture solutions in market. But I prefer calling them super-power apps, because the idea that a single application is going to dominate all others in the U.S. when it comes to commerce AND lifestyle AND payments is a real unicorn. In this context, a unicorn means a magical creature that most people believe in but have never seen.

Time and again, various segments of the market go after the prize of a single-source application, but the barriers are significant. I would even suggest that the quest itself is quixotic. It's best left to markets that are

Time and again, various segments of the market go after the prize of a single-source application, but the barriers are significant.

demographically homogeneous, with strong market controls, and large unbanked segments that are unfamiliar with mag-stripe cards. That's not the U.S.

Instead, consumers will continue to use multiple, specialized apps, like their favorite app for fast-food mobile ordering, but more regularly interact with one app for their everyday business. This is already happening. Best-of-breed digital applications are rising that respond to the needs of specific markets or demographic groups.

These are the super-power apps. For example, there's Square, which has parlayed its brilliant takeover of the underserved-merchant market to create a suite of services for small businesses. Then there's Venmo, now attempting to get into the in-person payment market through its loyal user base built out of college campuses around the country.

Also Chime, one of the only super-power banks I could think of that has successfully scaled a digital-only banking experience, but, to be fair, without the overhead of a real bank.

AN INDEPENDENT BUNCH

In a real super app, a user stays in that app most of the day and can conduct all sorts of lifestyle tasks, including transit, food purchases, bill payments, money transfer, and insurance. But in our super-power app, users access the services they need the most and go elsewhere for the rest.

Why is that? Americans are an independent bunch. We like having choices, but we also don't necessarily trust the companies that have enough capital to invest in this type of meta-strategy, like Google or Facebook. Just consider the detritus of their failed payments strategies strewn across the past 20 years.

Hate to disappoint, but there is no super-app problem here to solve. Instead, our market is using its super powers to create organizing solutions for specific users and for specific problems.

Your super-power app may be faster than a speeding bullet and mine may be more powerful than a locomotive, but by themselves, neither is Superman. DT

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