DECEMBER 2021

2021

THE YEAR OF ...

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IN A WORD

50 THOUGHT LEADERS SUM UP 2021

If 2020 was a year of breakdowns, then 2021 is a year of breakthroughs. Digital is coming to every vertical and every company, bringing not just change, but in a word, transformation.

As Q4 2021 began, digital transformation was already impacting everything we do in the hybrid digital-physical world that was hammered out this year for a 2022 debut, altering the ways we eat, travel, play, work, receive healthcare, and crucially, how we pay for it all.

Some of the changes we've undergone are obvious, like the drop in branch banking. Other changes are more nuanced, such as shifts occurring in credit as traditional cards and buy now, pay later (BNPL) divvy up the market based on consumer needs and preferences.

Environmental, social and governance (ESG) strategies are entering the frame as a set of necessary and valuable corporate initiative. The consumerization of B2B payments is bringing new levels of ease and accuracy to back-office operations. Telehealth is proving the rare and genuine gamechanger as a massive and legacy healthcare system digitally reconstitutes.

Accounts payable (AP) and accounts receivable (AR) automation are improving accounting in ways treasurers only dreamed of a few short years ago. Loyalty is attaining new levels of engagement, strengthening consumer affinity and increasing order sizes, powered by apps and QR codes that have subtly become common.

Advances in digital identity including biometrics and rich datasets are putting cybercriminals on the defensive, as artificial intelligence (AI) and machine learning make these solutions smarter.

Cryptocurrencies are shaking off their exotic reputation as proponents look for new ways to incorporate crypto into the financial system even as regulators and some executives question its nature as speculative investment or spendable asset.

Together with crypto conversations are ambitious blockchain plans, all of which sound almost dated the deeper we delve into the coming metaverse and its experiential commerce.

Perhaps the biggest developments are around what we call the Connected Economy — the vast collection of interoperable ecosystems in every vertical industry — but interrelated due to the way payments are relevant and crucial for each.

THE YEAR OF ...

2021: THE YEAR OF **THE 3Cs**

It's hard to sum up 2021 in just one word. It's been a rollercoaster year that's seen lockdown lows and bounce-back highs.

Like its predecessor, it's a year that has ultimately been defined by COVID — the one word that has ruled all others. But it also brought two other words to the fore: convenience and contactless. Together, these 3Cs have transformed payments behavior, acceptance and innovation.

COVID has been both a growth disruptor and a change accelerator. It squeezed many retailers so hard that they were forced to either close, consolidate or crank up their investment in digitalization as consumers moved online and workers stayed at home.

For consumers, it broke down entrenched habits, especially those of older generations who, left with no alternative, took to e-channels in droves. Mobile apps proliferated and new ecosystems sprung up to power digital spending, from social buying to hybrid curbside and click-and-collect services.

For example, our recent research on grocery consumers found out that the online grocery shopping motives shifted from COVID concerns to convenience during the latter part of the year. More than three-quarters of those who increased their use of digital grocery shopping channels said they did so because digital channels provide an easier, more convenient way to shop, which represents a reversal from October 2020, when the greater share of digital shoppers — 64% — cited concerns about the virus.

COVID hit workers in the gig economy and forced many into further furlough. As a result, buy now, pay later (BNPL) and flexible payments became even more attractive to those looking to spread costs or stay clear of credit card fees. Meanwhile, alternative payments like PayPal thrived, as new eCommerce shoppers, anxious about payment security, sought to protect their payment details when spending online.

As the world went digital, many of the services introduced to keep customers safe during the pandemic also reset shopping expectations around convenience.

From faster delivery and one-click purchase, to buy online and pay in-store (BOPIS), customers now expect more speed and less friction — across every demographic. They also want to move between channels with greater ease, browsing, choosing and paying where and however they want. More than ever, payments must be seamless and effortless.

To help them rise to the challenge, many retailers are choosing multi-acquirer solutions — not only to optimize checkout choice, but also to achieve faster processing with fewer declines so they can keep conversion high for convenience-oriented audiences.

Finally, you can't talk 2021 payments without shining the spotlight on contactless. The big winner in the physical payments stakes must be tap and go (payments and other contactless POS technologies). Keeping buyers and retail staff distanced and safe at the POS, it has become the new norm. Contactless transactions have finally usurped cash, which is no longer the primary payment method for low-value purchases.

Consequently, many consumers no longer carry cash and many retailers no longer accept it. The rise in payment thresholds means the share of contactless payments at the checkout will continue to rise, and methods such as digital and mobile wallets could threaten to reduce the card market's dominance.

All three Cs — COVID, convenience and contactless — will continue to drive change in 2022. The desire to mitigate one while optimizing the others will require even better connectivity between payments and services, closer collaboration between partners and providers, and the harnessing of payment technologies — including AI, ML and anti-fraud — to ensure more personalized and safer experiences, whatever the channel.

SANJAY
GUPTA
Executive Vice President, Biller Segment

ACI Worldwide
Real-Time Payments

2021: THE YEAR OF **DIVERSITY**

If you look up the word "diversity" in the dictionary, you find a definition as "the condition of having or being composed of differing elements: VARIETY." In reflecting on billing and payments in 2021, the theme of differing elements plays out in many facets, and captures the spirit of a year marked by variety.

Diversity in Payment Choices

Consumers want to pay for goods and services when they want, in the channels they want and with the payment options they want. Whether it's paying taxes, utilities bills, car loans, insurance bills or other bills, consumers expect options in the channels and with the methods they want to engage.

Consumers continue to ask for alternative payment methods (APMs) like Apple Pay, Google Pay, Zelle and other mobile wallet options, whether they are buying from a merchant, paying their bills or paying back friends/family for things like shared expenses. In addition, cryptocurrencies gained popularity in 2021 as consumers looked for ways to use these financial assets to pay for and fund daily lifestyle activities and living expenses.

Diversity in Paying out Consumers

While choice is important in making payments to billers, consumers equally seek options when it comes to receiving money from their biller. This past year, we saw a rise in the demand for digital disbursements to consumers for things like insurance claim payouts, consumer loans, mortgages, governments or higher education overage payments and refunds, as well as rebates from utilities. Preferred payment options include everything from ACH, push to debit and APMs to cash.

Diversity in the Speed of Inbound and Outbound Payments

Timeliness of payment impacts everything from late fees to receiving emergency insurance claim payments.

ACI's research tells us that one in four (25.4%) consumers made an urgent or same-day payment in 2021, up from 20% last year. Offering choice when it comes to real-time digital payment and disbursement options can make the difference when it comes to customer satisfaction. In fact, our data tells us that 31% of consumers would consider changing their payment channel or method if it meant the payment would process faster, an increase from 2020 (26%).

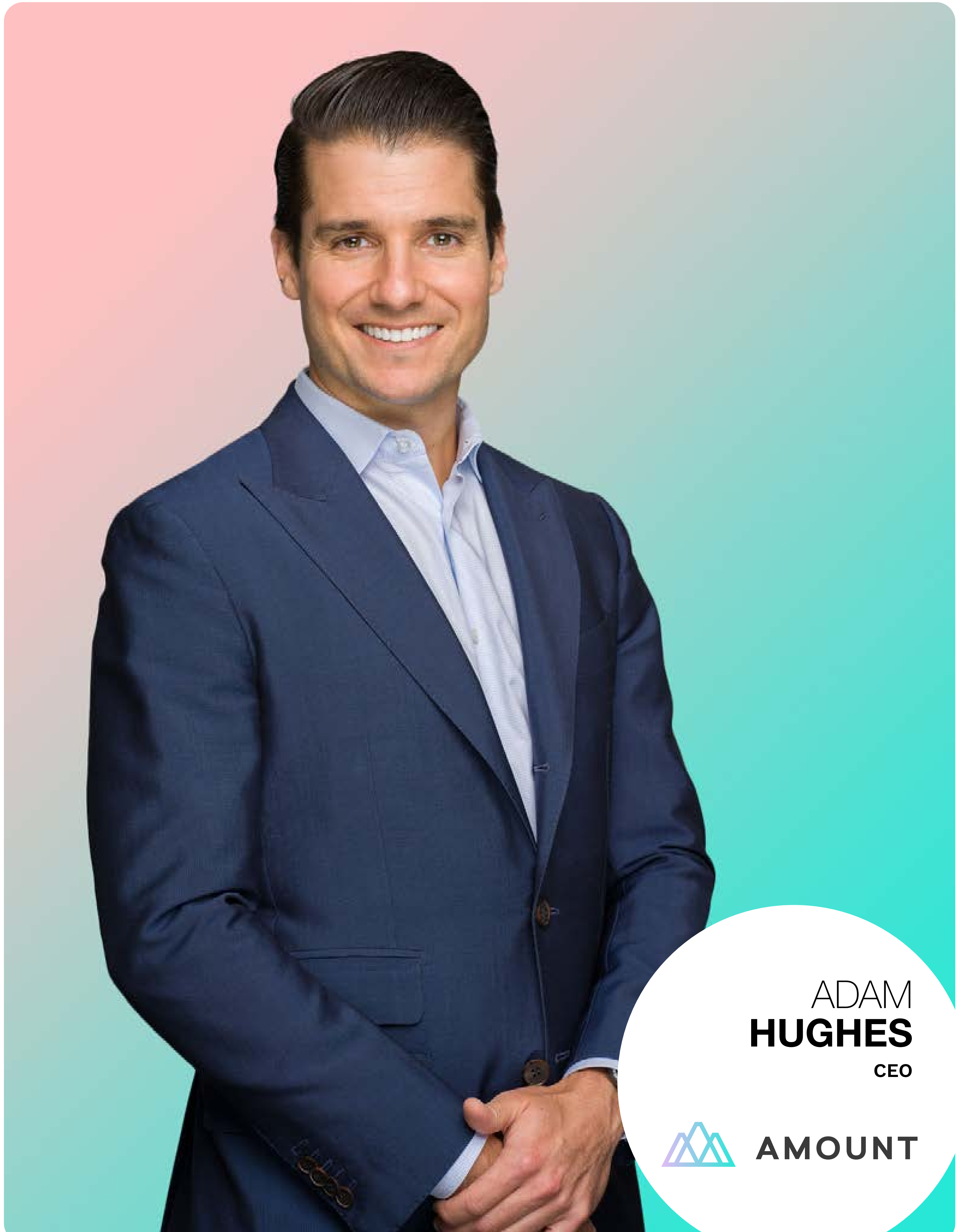
Diversity in Communicating With Billers

Consumers want to know they can reach their billers anytime they have a question related to their billing and payments and desire varying ways to engage. While some may want to speak to a representative, many seek digital and automated ways to connect, like text, email, IVR or a virtual agent.

Diversity in the Consumers We Serve

ACI research delineates many generational preferences when it comes to paying bills. For example, 55% of Gen Zers/millennials are interested in paying bills with alternative payment methods, while only 15% of boomers would consider paying with a mobile wallet.

As the billing and payments industry enters 2022, I expect we'll continue to see demand for more choice and variety from the consumers we all serve. The speed and diversity of responsiveness to these demands from billers could make or break their success.



2021: THE YEAR OF **RELEVANCE**

Coming out of last year's forced and rapid adaptation to a digital-first marketplace, this past year challenged financial institutions to truly understand what is most important and valuable to their customers and, in turn, to deliver meaningful and differentiated offerings.

So, in a word, 2021 was all about relevance.

Simply said. Much more complex to achieve.

Maintaining relevance in today's increasingly crowded financial services ecosystem requires having the right technology, the right partner and the right solutions to not just meet customer expectations, but to anticipate them — because the competition from non-bank financial players is only a click away. In order to compete, financial institutions sought to incorporate FinTech functionalities directly into their own offerings. This required taking stock of all that has changed, evaluating their technology, products and operating models and making sure they're hitting the mark.

For consumer banks, this meant coming to terms with the shortcomings of inefficient, inflexible legacy infrastructure and novice internal information technology (IT) teams, which prohibit the timely innovation and implementation of new customer offerings. For niche financial service providers, like mortgage lenders, it also meant realizing that you simply can't be in business anymore with just one product.

As a result, this past year saw financial institutions pivoting away from the build versus buy mindset and embracing strategic partnerships with FinTech providers to accelerate speed-to-market with differentiated consumer-centric features — while also maintaining the confidence and convenience associated with a trusted financial institution.

But to be clear, I'm not talking about the traditional all-or-nothing relationship with a technology provider. Rather, financial institutions began seeking out flexible and modular solutions that allow them to bolster their existing technology investments

and fill in the gaps, not replace them. This new approach to seeking a technology partner, not just a vendor, is what enables organizations to evolve their offerings as the market matures, adding or subtracting features as necessary, even scrapping them if they are no longer relevant — which is key to fostering the type of long-term loyalty that leads to high customer lifetime values.

Yet remaining relevant isn't just critical to consumer-facing organizations. It's equally important to the financial players on the back end. Take core providers, for example. To help FIs meet the ever-evolving demands of today's digital-first customers, legacy infrastructure isn't going to cut it. To compete with cloud-native competitors that are increasingly attracting their customers, legacy players are partnering with FinTech providers to seamlessly deliver a wider range of banking options. By expanding their value beyond record-keeping, core providers are better positioned to capitalize on one relationship with more relevant end-to-end solutions.

As we head into 2022, I think we'll continue to see more and more FIs across the spectrum embracing FinTech partnerships to enhance their capabilities, their offerings and their relationships with customers and partners. Because ultimately, it's more than just a means to stay relevant — it's a way to control their destiny.

2021: THE YEAR OF **REALIZATION**

I believe "realization" is the word that best describes 2021 for many of us in the B2B integrated payments ecosystem where Billtrust customers exist. It has been a year during which many of us were able to step back and assess the situation in ways that we didn't or couldn't do in 2020, when many of us were forced to be reactive. In taking stock, we came to a number of realizations:

- With the advent of a new variant, omicron, we realized that COVID-19 continues to adapt and isn't going anywhere.

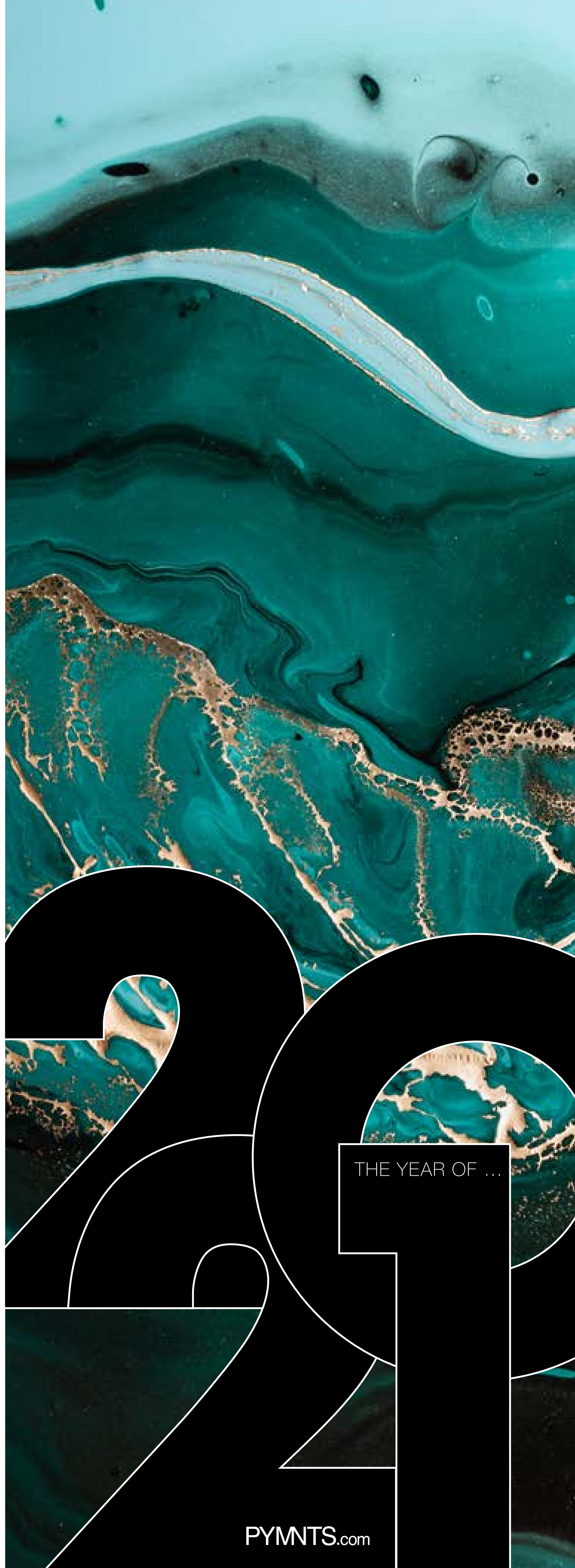
- We realized that remote/hybrid work models are here to stay, and finance teams have to make accommodations.
- We realized that USPS slowdowns and delays are also permanent, and that relying on the mail to maintain cash flow is a risky endeavor.
- We realized that the customer experience is our most important differentiator, and that self-service is key to doing business moving forward.
- Most of all, we've realized that the methods that have worked for so many of us up till now will no longer help us succeed.

With all of these realizations firmly in place, it is now decision time. Are we going to adapt to the new world around us? According to recent third-party research commissioned by Billtrust, accounts receivable teams are addressing these new realities by strongly investing in technology initiatives in the coming months, like campaigns to move customers toward accepting electronic invoices and making electronic payments, integrations with AP portals and the addition of self-service payment portals.

The research also showed that best-in-class AR organizations, defined by their ability to present invoices electronically and accept digital payments — as well as other factors like predictive analytics and touchless cash application — demonstrate clear success, with 25% better customer service levels and 23% collections improvement versus the average AR department. Best-in-class teams were also found to offer 20% more self-service capabilities and to receive payments 15% faster than average.

These firms also measure success differently. Rather than measure performance by immediate cash flow (DSO), these AR teams measure success based on customer satisfaction with AR processes. Companies like these, which represent about 8% of all the firms we've surveyed, have made the decision that automation, digitization and modernization of the AR process is critical to future-proofing their businesses.

Change doesn't come easy, but I'm pleased that many AR organizations have realized that it's time to address the new realities — and to eliminate the outdated processes and poor user experiences that stifle their ability to compete today and tomorrow.



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2021: THE YEAR OF **BLOCKCHAIN PAYMENTS**

It could be because celebrities like Mark Cuban and Elon Musk talked about cryptocurrency (crypto), especially Dogecoin, or because there were payment services like Mastercard and PayPal entering the space, too. In the end, the publicity is great news for the blockchain community, as it means crypto is becoming mainstream and available to everyone.

As a result, consumers are not only demanding that merchants accept crypto payments, but many are pushing for multiple coins to be accepted widely. It's not just about bitcoin anymore. This year, Dogecoin, Litecoin and Shiba Inu were added to the list of most preferred coins by customers. Cardano, Algorand and Cosmos are also topping the list of what coins should be accepted next. A recent survey by PYMNTS found that 46 million consumers plan to use crypto to pay merchants — just another reason for merchants to evaluate accepting crypto.

The survey also pointed to the top five things crypto owners would consider buying. These include travel and leisure, real estate, professional services, furniture and appliances, and financial services. The retail industry is seeing crypto used for day-to-day purchases of food, travel, electronics and clothing, as well as online gaming and trading. As the price of bitcoin went up, extravagant goods were a hot purchase item, from high-end autos like Bugattis, lavish watches and jewelry, to ski chalets in Tahoe, condos in Manhattan and even luxury yachts.

When crypto was not accepted at a merchant, consumers found other ways to make purchases using it. They would buy gift cards and load or top up a crypto debit card, also enabling Apple Pay and Google Pay. Consumers are able to spend anywhere Mastercard debit is accepted around the world, including for online purchases and to withdraw cash from ATMs

To make it even easier to spend crypto anywhere, the ability to pay in-store, in-app or online through Verifone is on the horizon as the telecom giant already works with 74 of the top 100 global retail brands.

Merchants are listening — and not just the small merchants, but also large top 100 retailers and household names like APMEX, the Dallas Mavericks, Dish, Jomashop, Microsoft, Newegg, Pacsun, RM Sotheby's and Shop.com. This year, they all announced they'd be adding or expanding crypto options. It also helps that the crypto market is huge, with consumers expected to make $55 billion in purchases using cryptocurrency in the next 12 months, according to the same survey.

By accepting crypto payments through a service like BitPay, a merchant can broaden its customer base while being protected from the price volatility of crypto transactions. The ability to accept crypto expands a merchant's sales opportunity into new domestic and international markets where accepting traditional credit cards is not practical. It's also a way of reducing high fees and increasing payment transparency and efficiency.

For 2021, it was about making it easy for merchants to accept and for consumers to spend crypto.

In 2022, blockchain payments will continue to transform how merchants and consumers send, receive and store money around the world.

TALBOTT
ROCHE
President and CEO

2021: THE YEAR OF **THE CONSUMER**

If there was one "star of the show" in the payments transformations of 2021, it was the consumer. In a single year, consumers have learned to leverage physical and digital channels to their best outcomes. This requires payment providers to not just offer digital solutions, but also to optimize them to better meet the consumer's needs — and to that point, merchants and brands are taking digital solutions to the next level with more consumer-centric features.

In the last year, amid retail changing virtually instantly — and the value and necessity becoming more obvious — there came a surge in omnichannel experiences, digital wallet adoption, contactless payments and mobile apps.

Here are a few of my key learnings from the year:

1. Enabling consumer privacy and data controls.

A major part of payment growth comes down to gaining the trust of consumers. Building and optimizing payment offerings that deliver a customized experience for opt-ins, opt-outs and data sharing was a major achievement in growing consumer trust and confidence.

2. Enabling personalization and contextual commerce.

Consumers became further in control of their shopping and payments experience with the growth of contextual commerce, where digital payment and loyalty tools have begun to offer more timely, relevant and personalized interactions with brands in a variety of situations and locations.

We're all becoming more accustomed to unified commerce — the ability to pay however we want, wherever we want. We know shoppers value a simple checkout process, but now it also needs to fit their preferences and follow them throughout their different needs and demands – yet another example of how payments is squarely at the crux of the customer experience.

3. Empowering local merchants.

Local merchants and SMBs have now had the opportunity to join the digital payments experience more seamlessly. We saw efforts across the industry to offer better support and inclusion for these businesses. Creating new ways for them to engage with customers will be a much-needed focus area for our industry moving forward.

4. Tapping AI and machine learning.

The growth of artificial intelligence (AI) and machine learning into mainstream consumer mindsets and transactions was a game-changer. These new tools have become critical to power risk solutions that allow transactions at speeds and volumes never before seen.

5. Digital in physical environments.

The strong adoption of digital and mobile payments experiences may be the single biggest long-term impact over the past year — delivering on the promise of multifaceted experiences that combine speed and personalization with the convenience of in-store experiences and the streamlined purchase process that consumers have come to rely on.

As I reflect on 2021 and look ahead to 2022, we are moving from accelerated digital adoption toward a period of transformation, adapting and growing digital transactions to better meet the needs of consumers. The opportunity for businesses to grab a share of consumer wallets is wide open, and driving stronger loyalty through better payment ecosystems is a critical phase of that growth.

2021: THE YEAR OF **INTENTION**

The onset of the COVID-19 pandemic turned 2020 into a year of reaction across all industries and communities on a global basis. In the absence of time and actionable data, companies responded the best they could to navigate the rapidly changing landscape. By contrast, 2021 has been a year of intention.

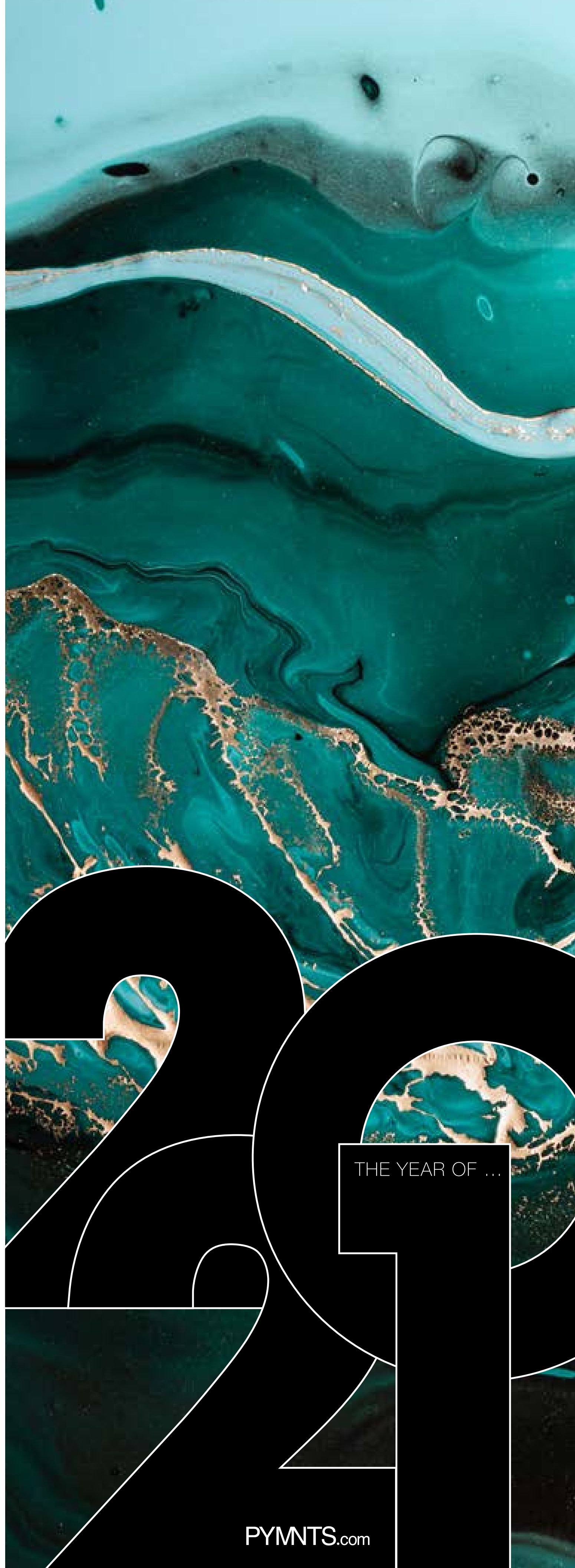
After having a moment to regroup and take stock of what transpired in 2020, we collectively gained the ability to clearly see which payment-related issues were magnified by the pandemic and the economic consequences. In 2021, the payment industry had a unique opportunity to step back, examine itself and be intentional in assessing a path forward.

There is no doubt that the pandemic has accelerated the digitization of B2B payments. A recent PYMNTS study found that 86% of CFOs say that AR/AP digitization is “extremely” or “very” important. To accommodate this need, at Boost Payment Solutions, we went about developing and deploying a broad spectrum of technology-enabled solutions that have helped our partners and customers to rebound.

The pandemic also highlighted the risks and costs associated with traditional manual processes, so we have focused our technology investments on building out proprietary solutions that eliminate the economic and functional friction often associated with the use and acceptance of commercial cards.

It has frequently been noted that the global B2B payment market has enormous potential, with most estimates somewhere between $100 trillion and 125 trillion annually. Most of these transactions remain entrenched in antiquated payment methods, with invoices still being manually processed and reconciled. It wasn’t until 2021 that we observed an intentional focus on expanding commercial card use and acceptance outside the U.S. The global partnership we announced with Mastercard in November is a fitting example of how like-minded companies are coming together to develop deliberate strategies to tackle this challenge.

In addition to being intentional in our business strategies, I have also observed my colleagues being more intentional in their personal interactions and relationships. Gone are the days of seeing your co-workers every day at the office or jumping on a plane for every client meeting. While there is no substitute for those in-person interactions, it’s been rewarding to witness my teammates make concerted efforts to check in with their colleagues more frequently and build authentic relationships. This is one trend that I personally intend to continue post-pandemic and beyond.



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2021: THE YEAR OF **ADAPTABILITY**

While many expected 2021 to remain somewhat challenging, the year had many more twists and turns than our wildest predictions. Every time we started to see COVID in the rearview mirror, a new wave disrupted all our carefully thought-out plans. Adaptability became the only viable strategy, and the one word that described how we navigated the year like none before.

One common example of adaptability across many businesses is the offering of hybrid products and services. For example, most of us participated in conferences or classes that were offered both virtually and in-person. Or we picked up boxed meals from restaurants that could be eaten at the restaurant or taken home. This flexibility allowed businesses to deal with the changing environment and customers' comfort level with safety protocols. Combined with the advancement in digital and touchless payments that accelerated throughout the year, this fluidity drove strong commerce growth despite the challenges.

Businesses also realized the value of artificial intelligence (AI)-based solutions in making their decisioning system more nimble. Most rules-based systems could not react quickly to changing data patterns and failed to predict events or behaviors accurately. Whether it was fraud management, credit risk predictions, customer attritions or personalized offers, AI-based solutions performed much better in this environment. Although there continues to be some trepidation about the costs involved in developing and maintaining AI solutions in-house, many organizations have started exploring turnkey solutions for their specific challenges.

Companies like Brighterion offer solutions with built-in AI models that can be deployed right away. This allows businesses to gain value from the solution while it keeps improving by processing more and more data. Agility and nimbleness will continue to be a competitive advantage, so wider adoption of AI solutions is likely to continue.

Finally, buy now, pay later (BNPL) is another example of adaptability on the part of merchants and lenders to meet the demands of customers who are looking for flexibility in payments and alternative credit solutions. Its rapid growth over the past few years underscores demand for more payment innovations like these. AI and machine learning can help address any fraud or risk issues that may occur when implementing these innovations at scale and ensures that the risks are balanced against the advantages.

All the challenges and opportunities of 2020 and 2021 have prepared us well for the exciting times ahead. I am very optimistic that our growth will continue to lead us to great heights in 2022!

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2021: THE YEAR OF **OPPORTUNITY**

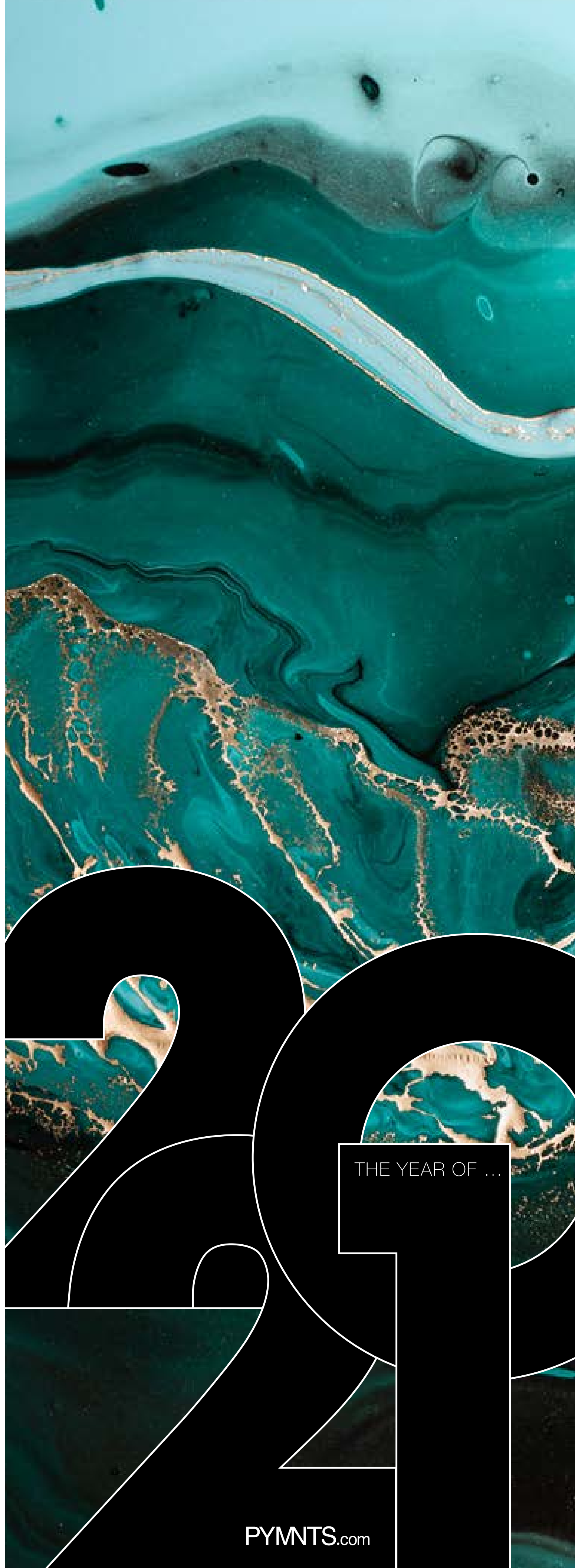
For the businesses that navigated 2020 and all of the financial perils brought about by the pandemic, these past 12 months have served as a reminder that the new eCommerce landscape is flush with dynamic opportunities. For entrepreneurs, opportunities are always intertwined with challenges, and that was no different in 2021. As customers migrated in droves from traditional brick-and-mortar retailers to the online experience, competition and consumer expectations have noticeably ratcheted up.

It's not enough to entice potential customers with low prices, free shipping and exclusive offers. Millennials, in particular, are interested in developing a deeper connection with the brands they buy from. They want to interact with brands in convenient ways, which requires businesses to develop dynamic omnichannel experiences. Whether it's in person, via email or on a customer's smartphone, these connections are being fostered by businesses that fully understand their customers. And in the digital era, understanding a customer boils down to understanding your data.

Best-in-class customer services, personalized outreach, competitive pricing and shipping options that sidestep supply chain bottlenecks are just a few of the components that make a merchant and their products compelling to a modern shopper. All of these variables can be quantified with data, but merchants cannot do it alone. Leveraging third-party data can help a merchant understand and market themselves to consumers in a more effective manner.

Making sure that your data and intel aren't siloed and can "talk to each other" is a key differentiator between businesses that are thriving and those that are struggling to survive. If you have customer data that you've validated, you want it to work for your warranty program while simultaneously working for your post-purchase email campaigns and customer service outreach.

The tricky part for companies is that while they fold in more and more third-party vendors to meet growing consumer demands — BNPL, for example — they must also work to ensure data security while avoiding waste. This balancing act can be an arduous task, but the companies that succeed have a strategic advantage over their competition. Connecting with your customers and partnering with vendors who help you leverage both market and proprietary data can be the key to turning opportunities into success in 2022.



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2021: THE YEAR OF **RETHINKING**

In 2021, financial institutions were forced to rethink conventional wisdom about how the payments and financial services ecosystems work. When I speak with credit union leaders around the country, I urge them to use these difficult times as a catalyst to reimagine every aspect of how they serve their members.

We witnessed a rapid acceleration of consumer preferences for digital banking in the past year. According to a survey by S&P Global Market Intelligence, since the beginning of the pandemic, 52% of respondents are visiting branches less frequently, 65% are using mobile apps more frequently and 24% have tried mobile check deposit for the first time.

These evolving expectations extend to how consumers pay, as 82% of Americans used digital payments in 2021.

Meanwhile, financial consumers are taking advantage of new and expanded credit access models, such as buy now, pay later (BNPL) and decentralized lending (DeFi), which is built on the same distributed ledger technology that underpins cryptocurrencies.

As the pandemic relaxed its grip in the first half of the year, consumer confidence improved and the public began returning to "normal" activities, like leisure travel, dining out and attending concerts and other events. This helped to drive a rebound in spending and credit use through the summer. Unfortunately, the emergence of the delta variant, along with rising inflation and supply chain issues, dampened this momentum in the fall, resulting in a flattening in month-over-month spending in the second half of the year.

Competitive and Regulatory Pressures Will Drive Innovation in 2022

As we approach 2022, further challenges to interchange revenue — from Congress (if an expanded Durbin Amendment comes to pass) and retailers — will incent credit unions and other card issuers to seek new, innovative approaches to growing non-interest income.

In 2021, we also saw a groundswell of support, especially among the millennial and Gen Z segments, for organizations to implement coherent, cohesive environmental, social and governance (ESG)

strategies, including a continued prioritization of diversity, equity and inclusion (DEI) action and sustainable banking practices. I expect this to continue in 2022, and a number of neobanks (such as Ando and Rallius) are springing up to explicitly fill this need, increasing the competitive pressure on incumbent players.

Opportunities for credit unions can be found in the increased automation and digitization of manual processes. With the rise of machine learning and artificial intelligence (AI)-based financial services that provide highly personalized and automated experiences, as well as API-based tools that level the playing field, credit unions will be well-positioned to compete effectively (and cost-effectively) in payments and digital banking.

The coming year may well become a turning point for the payments and financial services industries. By embracing new technologies to meet the needs of today's consumers, credit unions can reassert and expand their status as their members' trusted primary financial relationship.

2021: THE YEAR OF **CONNECTING**

The word that best describes what has been important to me and to the Cardinal team in 2021 is connecting.

We are trying to move the ecosystem to a place where merchants and issuers are not making decisions in silos and understanding that the merchant's customer is the issuer's cardholder. There's a very deep connection there. Issuers know a lot about their cardholders and merchants know a lot about their buyers – and when they connect to share information, that's where the magic happens.

As an industry, we've also been focused on connecting the dots – using machine learning and artificial intelligence to use all of that rich transaction data to help issuers and merchants identify which are the good orders and which are coming from the bad guys. At Cardinal, since we support both sides of the transaction, we connect the data from the billions of transactions we see to identify trends and anomalies — to keep false declines from happening on the one hand, and to spot fraud on the other.

Creating a connected environment through data, decision-making and shared responsibility is the only way we're going to get where we all want to go: driving approvals with fewer false declines, less fraud and a better consumer experience. Because of our familiarity with the payments space, we see how often some issuers challenge, what can trigger a challenge, how long authentication can take and how often it's frictionless. And merchants can write rules to address these factors. We all have to work together — merchants, issuers, gateways, processors and other service providers. We all have a stake in this, and we're all working toward the same goal — to let consumers buy what they want, when they want, from the merchant they want, using the payment method they choose.

Staying connected has been really important to me during this pandemic — to connect and collaborate on fighting fraud as well as connecting with colleagues personally. We've learned a lot more during this second year of the pandemic that we need to make an effort with our connections. We need to keep connected as a team, maintain those emotional connections with both our teammates and with our customers and partners.

At the beginning of the pandemic, we were all very empathetic toward one another, as we were all in the same situation, and I hope that continues. When we're connected like we have been – not seeing each other in person, but virtually — we've really been making that extra effort, and I don't think we've missed a beat. We need to continue that sense of urgency for being connected with the people who matter in our world of payments.

As we all know, there really isn't a silver bullet to solve all the issues in the payment ecosystem, but when we connect and all work together, we're going to get closer to a solution. I'm looking forward to connecting again with a lot of you soon in person, after too long of a break.

2021: THE YEAR OF **DEFIANCE**

A year ago, I would have suggested "grueling" as a fitting descriptor. This time around, I think "defiance" best characterizes what I've seen and experienced.

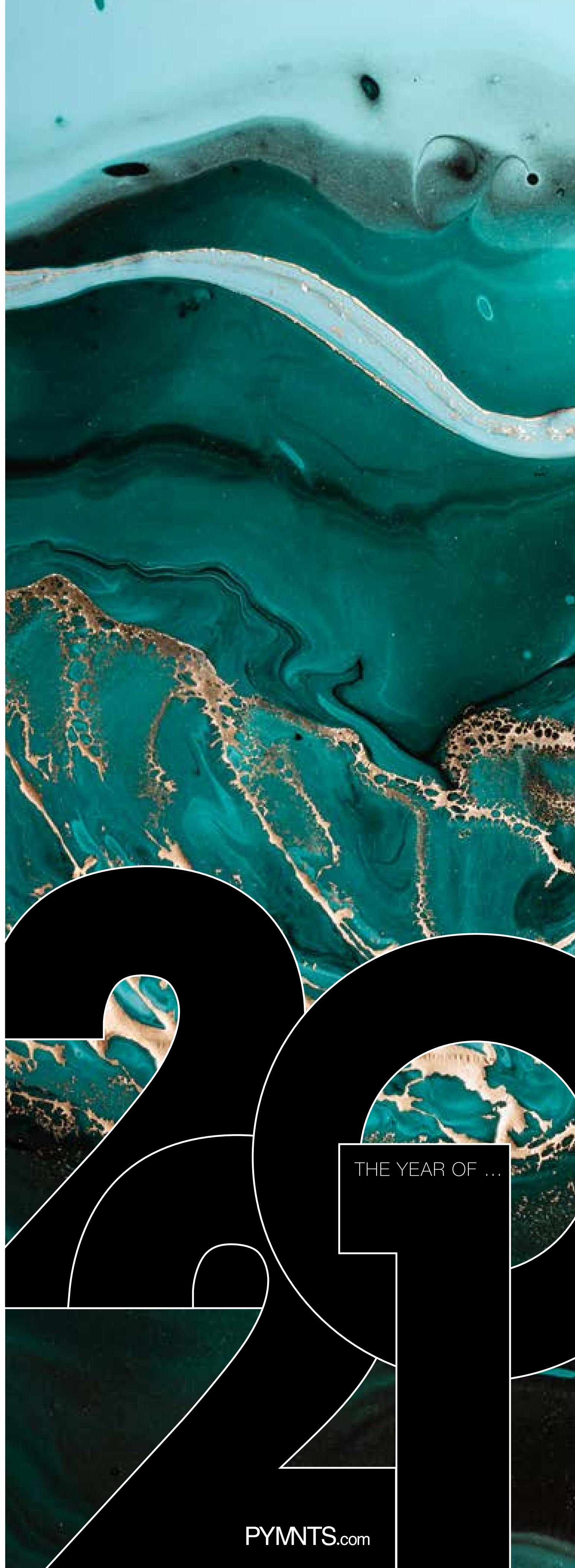
The delta variant's summer and fall "stress test" bent but did not break the healthcare system. Providers chose to keep in place many of the adaptations and revised workflows that had been hastily implemented in the early days of the pandemic — and, armed with knowledge and many new tools, the attitude was different. Still pushed to the limits? Absolutely. But fear and hopelessness were replaced by gritty defiance. There was the will to fight back — and win.

Few things showcased this like the herculean effort to vaccinate America. Healthcare providers, and the army of solution partners that supported them, pivoted from solely focusing on COVID care to instead driving patient traffic back to healthcare settings for vaccinations and general care. Potentially a logistical nightmare, it turned into a historic achievement. The touchless systems that were set up during the pandemic's first wave rose to the occasion, allowing millions of people to schedule vaccinations from their desktops and mobile devices — even enabling mass rescheduling of appointments in the face of natural disasters.

That success likely influenced responses in Experian Health's State of Patient Access 2.0 study, where 88% of providers indicated that they were "probably" or "definitely" planning to invest in patient intake capabilities due to the pandemic.

The pandemic also drove interest in data, machine learning and automation, which are poised to revolutionize the patient journey and fill some gaps left by a critical staffing shortage. The pandemic's impact on the economy, employment and demographics has even altered healthcare's approach to collections. By incorporating non-health data, providers are improving collections while simultaneously creating a better experience for the patient.

Personally, my wife and I were elated to get the email from our healthcare provider that announced our eligibility for the vaccine. It was easy to schedule the appointment online and underscored how there's been some positive change amidst the pandemic's pain. We've once again seen that the worst situations often bring about the best solutions. Our collective defiance has a lot to do with that. I saw it across the entire spectrum, from the frontline heroes to the many healthcare solution partners who pivoted in unison with the providers. Not alpha, beta, gamma, delta or now omicron could impede the progress of the healthcare system. We would not — we will not — be defeated.



2021: THE YEAR OF **DIGITIZATION**

When you look back at 2021, you see a world that has lurched forward in fits and starts. Every time we thought we had gotten comfortable with the "next normal," we found ourselves retrenching and restarting. The latest omicron variant has us guessing yet again what the impact might be on the next normal. As we collectively continue to adjust and change, one thing that has remained constant is the acceleration of digitization.

During the pandemic, there was a heightened need for new digital services that were quick to implement and that would offer a stellar user experience. We saw increased adoption and demand for digital services across a variety of touchpoints. We relied less and less on cash for our transactions and fully embraced eCommerce. We were quite happy to order online and pick up our orders a couple of hours later. And if we didn’t feel like paying for the entire cost of an item, we saw commitments from companies such as Mastercard to bring buy now, pay later (BNPL) solutions as another new payment choice, instantly and seamlessly integrated at checkout. In 2021, we built on our existing digital infrastructure to lay an even stronger foundation for digital payments and services, to meet evolving consumer needs and provide choice.

That foundation for consumer choice is also evident in the expansion and interest in open banking services. With open banking, consumers have the ability to unlock the data held by their bank and use it for their own benefit in solutions such as personal finance management, credit score boosting and payment initiation. Services such as income or asset verification are also key to providing information required as part of the credit application. Lending is also an area where open banking plays a significant role, led by companies such as Rocket Mortgage. Look no further than the red-hot real estate market to see this in action.

Last but certainly not least, this year we saw intense interest in cryptocurrencies, NFTs and other digital assets. Numerous companies now provide crypto trading capabilities; however, one thing that hasn’t changed in 2021 is the volatility of those assets. At the other end of the spectrum, numerous countries around the world are exploring the topic of central bank digital currencies (CBDCs). This again points to the rapid and constant acceleration of digitization, particularly in how money is minted and issued for use.

You can expect that in 2022, the entire industry is going to continue building on this digital foundation.

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2021: THE YEAR OF **PERSEVERANCE**

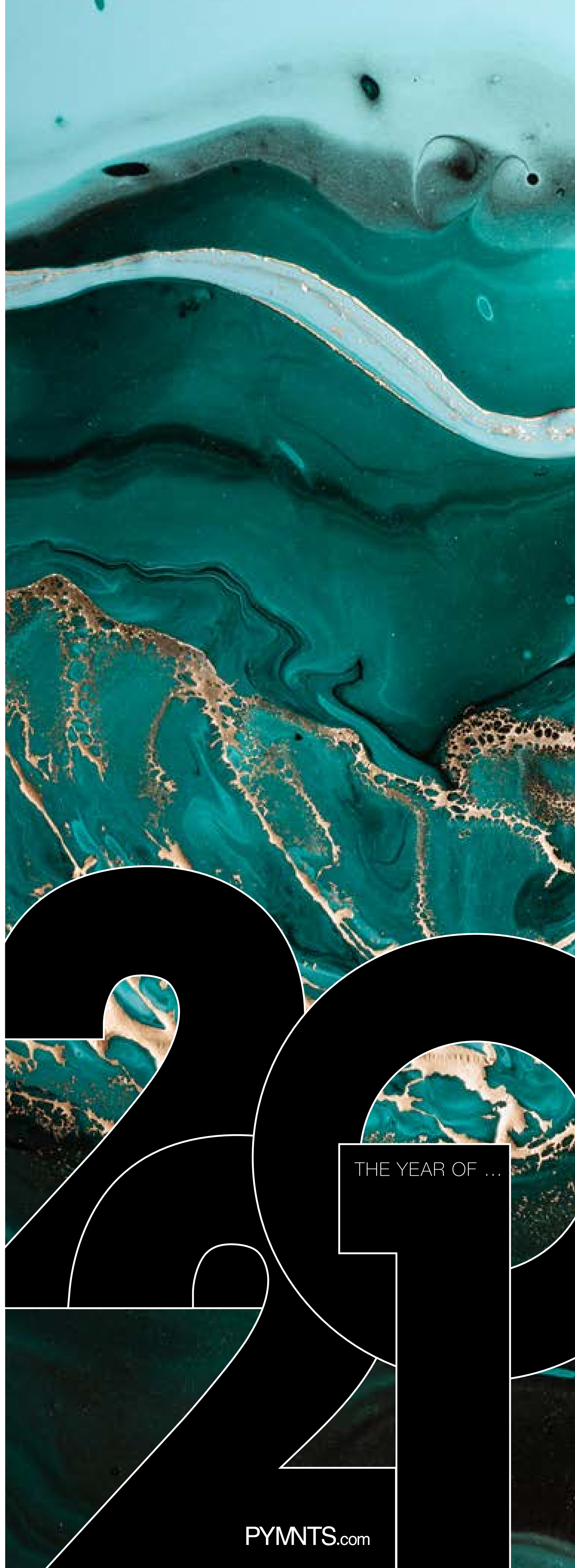
Like 2020, this past year presented a great deal of challenges. I was incredibly proud to see companies around the world step up to these hardships and turn them into opportunities, though. For example, the acceleration of digital solutions and shifting consumer behaviors changed the rules of the game. That's why financial institutions (FIs) are now seeking to offer seamless digital experiences to meet their cardholders' demands and innovate with agile, flexible technology that's future-proof.

This shift to digital is happening at a pace faster than anyone would have guessed 24 months ago. According to Accenture, 68% of banking executives said the pace of digital transformation is accelerating faster in banking than in other industries, and 50% of banking consumers worldwide use a mobile app or website to connect at least weekly with their financial institution.

In addition, consumers now demand more flexibility when it comes to how they pay for high-priced items. Buy now, pay later (BNPL) is one of the many technologies that caught popularity over the past several years, especially during the hard economic times brought on by the pandemic. Though the idea of this technology is not particularly new, its rise in popularity among FIs, merchants and consumers is quite noteworthy.

In fact, according to the Buy Now, Pay Later Market Size and Trends Report by Grandview Research, BNPL payments schemes are set to more than double in payment market share growth by 2024, making it the fastest-growing payment option. The simple concept of being able to buy larger-ticket items and pay for them over time is one that benefits everyone in the payments ecosystem. This has led to cardholders making more expensive purchases, increasing the average order value while capturing fees and interest revenue for the issuers. Merchants also benefit from BNPL, as the technology helps increase sales volume and conversion rates by providing payment flexibility for high-priced items that may otherwise get left in a shopper's online cart. Finally, consumers receive the largest benefit, because they now have options at the point of sale that will allow them to make the most informed financial decision when it comes to buying a high-priced item or paying a large grocery bill.

The key to organizations capitalizing on this transformative time in history is perseverance. As mentioned before, the challenges that have appeared in the wake of the pandemic and economic hardship creates opportunities for companies to innovate and transform themselves. Naturally, this process can be an arduous one. That's why I believe perseverance and transformation go hand in hand. Companies that can sustain innovation during times of change truly have the best chance to set their brand apart and become front-runners in their industry.



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NANDAN **SHETH**

Head of Carat and Global Digital Commerce

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2021: THE YEAR OF **TRUE OMNICHANNEL**

A seamless experience that blends physical and digital shopping journeys is now expected by consumers. The recent surge in demand for online ordering and delivery, curbside pickup and buy online, pick up in-store (BOPIS) accelerated the shift to true omnichannel.

Enterprise retailers that were stuck in an endless cycle of "contemplate, test and pilot" regarding new technology and fulfillment models were suddenly thrust into "get it done" mode to implement solutions in weeks, even days. Retailers activated contactless and mobile wallet payments in-store and buy now, pay later (BNPL) payment choices online. Grocery and discount stores reconfigured for curbside pickup. Restaurants added pay-at-table with QR codes.

It's Time to Optimize for Omnichannel Payments

With all these changes, it's clear that the old way of doing things has to change. The swift acceleration broke the "tinker, test and delay" cycle. Decision-makers have learned the value of being able to mobilize and innovate faster and better so that all payments can be made available in all channels.

Merchants now need to make all payment types available online as well as offline — not just traditional card payments, but also new emerging payments, from BNPL to pay-by-bank and EBT for grocers.

Merchants are Simplifying Omnichannel Tech

Merchants can save time and resources by consolidating systems, data, implementation and support for all channels — physical, digital and mobile. Bringing it all together not only provides merchants with a competitive advantage, but also allows customers to quickly identify and engage with brands.

Blending digital and in-store experiences starts with a robust set of developer-friendly tools. Merchants can reduce development cycle iterations with a self-service portal and omnichannel APIs. Pre-certified connectivity to multiple vendors, value-added solutions and processing endpoints via a centralized commerce hub can help consolidate vendor access, reduce development time and increase speed to market.

Challenges Remain on the Road to Omnichannel Commerce Nirvana

The need for speed in response to changing consumer demands has led to the development of technology that blends physical and digital experiences. In order to support continued growth and innovation in BOPIS, order ahead, integrated delivery and even social commerce, it's not enough to bolt on short-term solutions.

Smart retailers are examining how to consolidate and optimize systems and processes to deliver true omnichannel experiences that are personalized and relevant.

To do this, merchants are turning to vendor partners that can provide not only omnichannel payments from a single platform, but also orchestrated and expanded experiences. For example, quick-service restaurants are adding delivery as part of their online order-ahead experience, and retailers are using data to improve consumer personalization for BOPIS experiences.

Finally, true omnichannel has been realized. Now, it's time to optimize.

2021: THE YEAR OF **RENAISSANCE**

To me, if the financial services industry in 2021 could be summed up in one word, it would be: renaissance. While 2020 forced many financial institutions to adjust to a changing market, in 2021 we saw firms actually enacting informed plans to improve existing processes. It is very exciting to have witnessed this vibrant marketplace of specialized FinTech providers that has emerged through APIs, making it easier for banks to innovate and provide great experiences for their customers.

Institutions that were initially reluctant to make the shift to digital processes have had to quickly adjust to growing demand and expectations. Additionally, new functionalities like embedded finance have highlighted that traditional banks were not fully equipped to make rapid digital moves. The importance of open banking — and the scalability allowed by the use of FinTechs' white-label BaaS solutions — emerged to fill that gap.

Banks, payment providers and FinTech companies are starting to move toward collaboration to launch services and solutions with the goal of making life easier and removing the technical burden for businesses of all sizes. The groundwork has now been laid to make finance embedded in a more standardized way, and initiatives like open banking will help unlock financial data for businesses. By connecting the back-end tools and services that businesses use — such as electronic payments rails — digital B2B commerce will become an invisible part of life.

Those who have embraced open banking have seen how it has made it easier for customers to access FinTech products or even open accounts with other FIs, while still transacting through their main bank's platforms. Rather than getting frustrated with their bank's limitations, customers will benefit from the ease in which they can work with their original institution.

The banks that are ahead of the curve and already partnering with FinTechs began to better understand how their customers use their products in context, which allows them to innovate smarter and faster. The best way for B2B banks to manage the impact of rapidly evolving customer expectations in a digital space is to partner with agile, innovative FinTech services. The reality is that embedded banking is becoming ubiquitous with back-end improvements and improved functionality — and FinTechs such as FISPAN are well-positioned to provide these solutions.

2021: THE YEAR OF DIGITAL-FIRST

The digitization of payments has been a steady force over the years, but the pandemic put it into overdrive, forcing many businesses and institutions to make the shift permanently. This is true even in industries that have historically been digitally underserved. Digital-first payment processes (and the software behind them) have become the status quo. And as consumers demand more digital-first engagement, software is transforming payment processes to meet critical business needs across industries.

Take higher education, for example. Cost has been a concern since long before the pandemic — for both international and domestic students. On the international side, the complexities and challenges of paying tuition and education expenses via international bank transfer or wire service only add to the stress and cost.

In 2021, Flywire surveyed more than 1,400 students from seven different countries on the topic. Students are clearly looking for help. Seventy-nine percent say a simplified payment process would improve their higher ed experience. Seventy-three percent say the option to pay in installments would make it more affordable. Schools are now using software to do both — and address the unique financial circumstances of different students in the process.

In healthcare, digital is also on the rise. In a recent survey of more than 1,000 patients in the U.S., 65% who paid their medical bills online for the first time during COVID-19 plan to continue using online methods going forward. Software is doing a lot more than just enabling digital payments, though. Healthcare providers are using analytics to build personalized payment plans that boost collection and empower patients by estimating the costs of medical procedures before patients commit. These capabilities enable patients to act less like patients and more like consumers. As they take on a greater share of their healthcare expenditures, they are demanding payment solutions that give them more control by making the process more transparent, manageable and affordable. In short, they expect it to be more like the rest of their life — i.e., digital.

The travel industry is responding to digital demand as well. In a survey of 800-plus frequent leisure travelers from five different countries, 89% said that ease of payment was important, and 70% said it impacted their choice of travel agent and/or tour operator. In addition to streamlining payment processes, travel companies are using software to incorporate buy now, pay later (BNPL) type capabilities, and allow split payments for groups. The reality is that operators can no longer worry about how the traveler will pay after the fact. Payment needs to be part of the overall value proposition they offer upfront.

B2B companies are also leaning on software-driven payment capabilities to improve their businesses. Flywire recently surveyed over 300 executive-level finance professionals in manufacturing, technology, consumer goods and professional services. Businesses are leaving money on the table due to antiquated payments infrastructure and processing. As many as 55% reported monthly revenue losses of between 4% and 5%, and almost a quarter (23%) lose 6% to 10%. The majority attributed the losses to time spent dealing with accounts receivable (AR). Digital payment solutions are streamlining these processes, providing more transparency into AR, and enabling finance professionals to be more strategic about growing their businesses.

Digital payments arrived in full force in 2021 thanks to the pandemic. And they will stay for good, because of the strategic impact they deliver for the businesses and institutions that deploy them.

2021: THE YEAR OF **ACCELERATION**

The countless dynamics of 2021 demanded acceleration. The shifting needs of commerce due to the impact from COVID-19 caused rapid acceleration in product innovation and automation, and shifted payments to become invisible in many different landscapes.

There wasn't an industry unaffected by the financial and operational impacts, prompting many of our partners and merchants to quickly mobilize a commerce experience, while retail storefronts and many small and medium-sized businesses (SMBs) were shutting their doors. Developing methods for enriching and enabling safe business operations and payment solutions became imperative and required, which led to an acceleration of product innovation by means that have not been demanded in recent years.

From hotels to doctors' offices, contactless payments through online and mobile orders enabled customers to check out safely and allowed business owners to see revenue and the activities of their day in a format of their choosing, while easing the burden of this transition — brought on by market acceleration and product innovation — on partners and merchants.

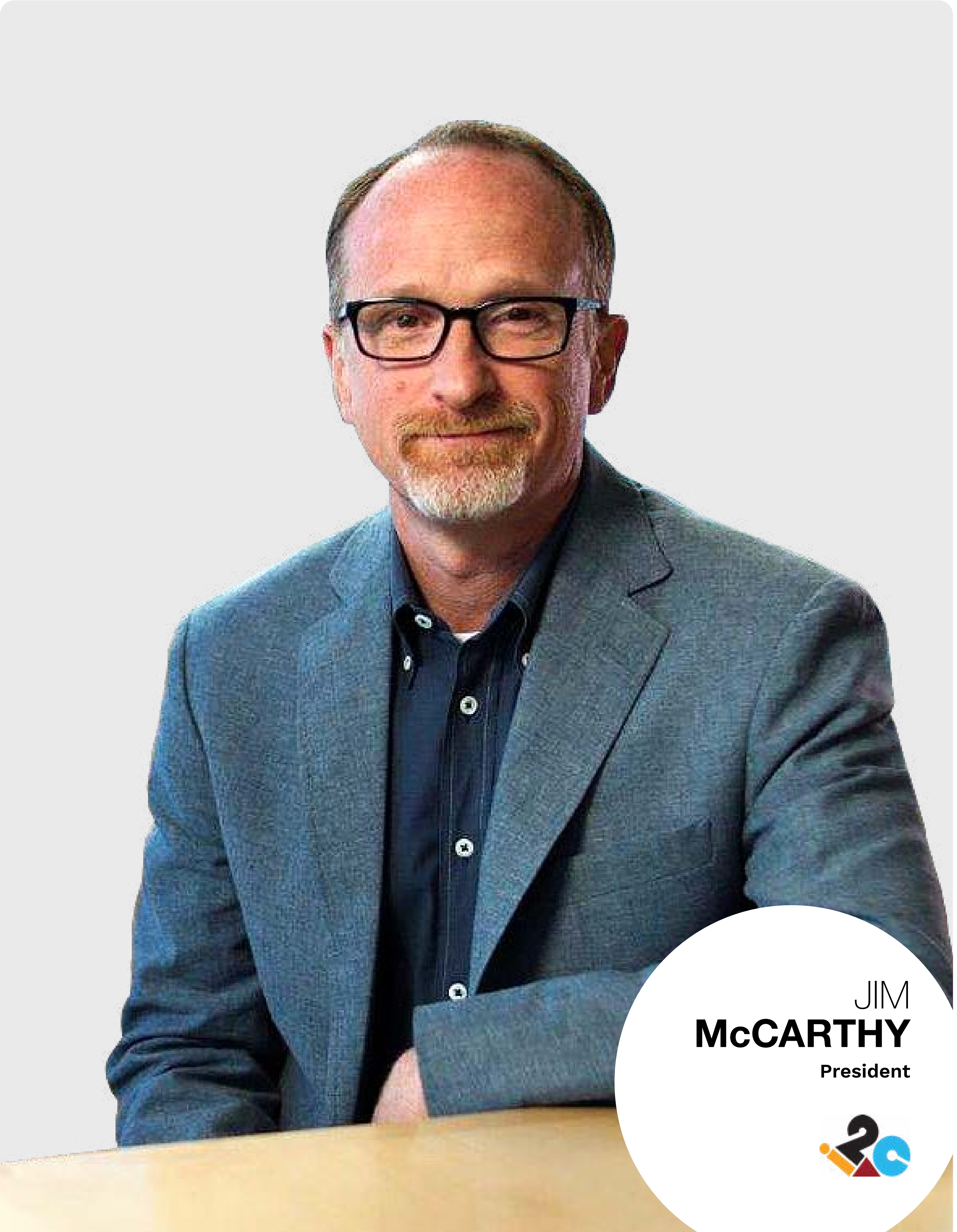
With acceleration came a demand for relentless automation in workflows. This was seen through automation within the ERP landscape and the ways SMBs found survival in driving efficiencies to support their customers. Supply chain disruptions caused us to think differently about what we could automate and handle through software inside our own walls instead of through a third party. Our partners automated everything from accounts receivable (AR) workflow to artificial intelligence (AI) automation of key data points in efforts of delivering products to our customers in a more meaningful fashion.

Consumers and merchants required payments to be embedded in new and novel ways as a result of COVID, and I don't believe things will ever return to "normal." There was a need for the ability to transact or do business where the consumer desired to do business. Digital transformation of storefronts and marketplaces in real time caused shifts in business models longed for but not yet realized until the tipping point of COVID occurred. Consumers demanded the ability

to digitally transact without the encumbrances of traditional business.

As these experiences commanded our focus, expectations for interacting with businesses and conducting commerce grew in the eyes of consumers and business owners. Acclimating to accelerated technology, consumers quickly adopted new experiences like QR codes to review menus or pay bills. Buy now, pay later (BNPL) is quickly becoming an expected standard part of commerce, providing options for how a consumer chooses to pay for goods. In the B2B sector, where roughly half of payments are still conducted via check, embedded payments allowed for the adoption of technology to drive payments, solving pain points that have existed for decades.

In many aspects, I hope the acceleration that caused us to solve problems swiftly never dissipates. Through an increasingly connected world, we are aimed at guiding a journey for our software partners that enables commerce and creates meaningful payments experiences for the SMBs we have the privilege to support.



2021: THE YEAR OF **ADAPTABILITY**

Over the last year, as economies tentatively reopened amid multiple spikes in new COVID variants, we saw a continued shift to eCommerce and a growing willingness to adopt new digital payment methods and experiences. Perhaps to the surprise of many, businesses mostly managed to plow through and adapt to new operating conditions. For this and other examples of resilience, "adaptability" is the word that I think best describes 2021.

Businesses Fought Through While BNPL and Crypto Rose

Businesses were able to juggle COVID-19 restrictions and social distancing guidelines while also navigating changes in customer behavior to digital. SMBs embraced contactless card and mobile payments in growing numbers, which now seem to be a convenience expected by consumers regardless of health concerns. We also saw many businesses quickly add online shopping experiences or switch entirely to a digital-first model as eCommerce continued to eat away at foot traffic.

The rise of buy now, pay later (BNPL) and crypto was particularly noteworthy. These payment options were previously on the fringes, but with the help of FinTechs and increasing consumer demand, they were brought right to the forefront of payments. The BNPL market saw explosive growth driven primarily by Gen Z and millennial consumers.

A staggering 44% of Americans have now reported using a BNPL solution to finance their purchases. Of course, major BNPL players continued to expand with rising consumer demand, but we also saw companies like Amazon, Apple and PayPal move in. Card issuers are also almost certainly on the cusp of adding a BNPL option, given its success over the last year.

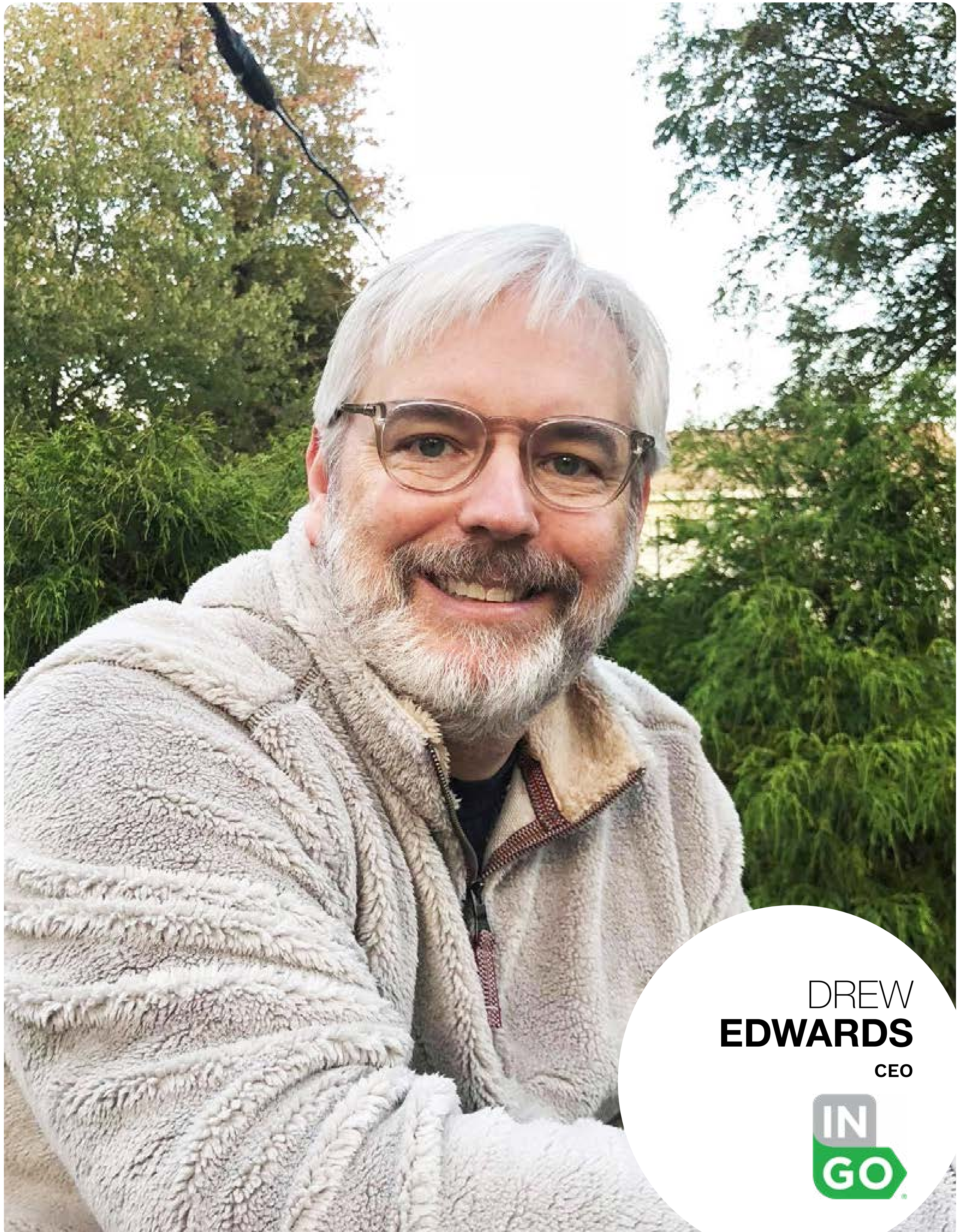
The crypto space also had a year to remember. A growing number of businesses across different industries, from Microsoft to Starbucks, began supporting crypto payments. The two largest processing networks also jumped further in. Visa launched a partnership with 50 crypto platforms on card programs to allow users to convert and spend digital currency at millions of merchants. Mastercard announced it would allow its network partners to enable consumers to buy, sell and hold cryptocurrency using a digital wallet, and reward them with digital currencies under their loyalty programs.

Banks That Would Not Be Left Behind

Of course, we also saw banks adapting to changing consumer behaviors, albeit within the bounds of their limitations. We started to see the likes of BofA and Wells Fargo decide not to reopen some branches and reduce ATM networks as businesses moved online and consumers shifted from cash to digital payments. Many expedited their digital banking initiatives as online and mobile banking surged. However, we also witnessed a growing realization around the inability of legacy systems to adapt to digital payment innovations and new ways people and organizations do business.

With ongoing change as a certainty, the road ahead for these incumbents will be about developing resilient, digital-first capabilities that can handle rising digital transaction volumes and enable customers to adapt rapidly to shifting operating conditions.

In short, the last year showed us that adapting to new realities and adopting new capabilities go hand in hand and are key to resilience.



2021: THE YEAR OF **ISSUING**

I realize that's probably not the word anyone was expecting. There might be some easier or more obvious choices, but in a year defined by the rise of digital-first challenger banks and neobanks, the closure of physical bank branches and much of the world stuck at home, there is no word more accurate.

The lasting financial legacy of the pandemic will likely be a final and definitive move toward digital. A potent mix of pandemic restrictions, financial need and convenience drove a massive shift in digital adoption, setting off a digital landgrab by providers for customers.

More disruptors across the FinTech spectrum began offering digital-first online and mobile experiences, new services and strategic business initiatives to quickly grow their customer bases. The obvious move was to begin offering bank and credit card accounts on top of their own savings, early wage access, remittance, investment or other products. Revolut's plan to launch a credit card into the U.S. market and Digit's new bank account offering are great examples.

Challenged by these disruptors, legacy financial services firms and even retailers joined the fray. From Liberty Mutual and Geico modernizing how they pay out claims to Fortune 500 companies launching their own challenger bank brands, the pressure was on to modernize.

New accounts became the currency of these offerings. Disruptors and legacies alike pushed new bank and credit card accounts to entice customers. The result has been a wave of new account issuances.

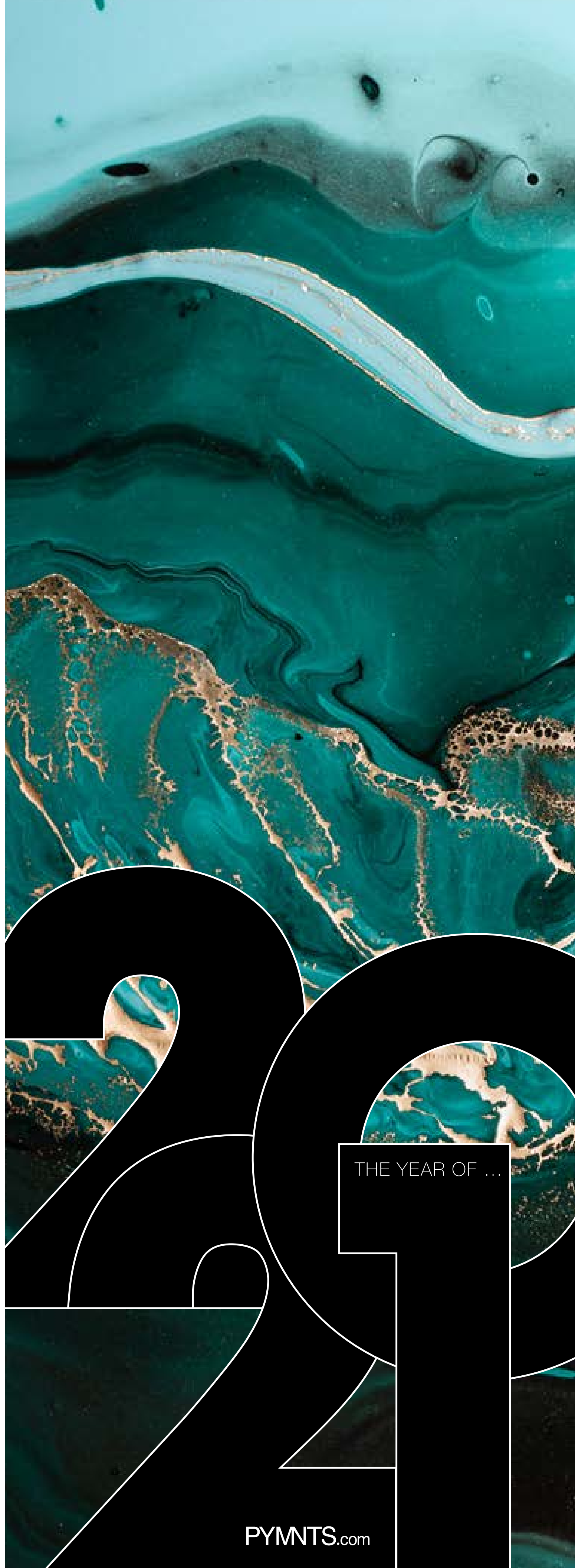
According to Statista Research, the seven leading challenger banks in the U.S. alone grew their user base by 40% between 2019 to 2020. Most of those new users represent new accounts, with the total number undoubtedly growing even more in 2021.

The ability to offer these accounts was made easy and flexible by the dozens of reputable companies like Galileo and Marqeta, which have modernized new account issuances, enabling a fast leap into the game. Of course, the next challenge for all these new accounts will be getting money into and out of them. In keeping with customers' digital expectations, companies providing deposit or payment capabilities must then be able to deliver safe, frictionless and instant funding to and from any account a customer chooses.

Delivering on the rising demand for "money mobility" means offering inbound and outbound digital transfer capabilities, funding via checks or cash, bill payment and truly robust "pay anyone" P2P services. That is a much less commoditized space, and will ultimately be the point upon which these new issuers win or lose customers.

The reality is that we no longer live in a world of a single bank account and a lifetime banking relationship. Consumers are opening accounts at a rapid clip for many purposes – and they expect speed, convenience and choice when it comes to their money. They will quickly vote with their wallets if providers don't deliver on that promise.

So, while the defining trend of 2021 was certainly the issuing of new accounts, 2022 will be a year shaped by money mobility.



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2021: THE YEAR OF **INNOVATION**

The stakes were high as businesses digitized across the board in response to the global pandemic and shifting consumer behaviors. From there, new and existing trends accelerated, reaching a tipping point to become lasting ways of doing business. At the center of all this were payments.

Payments have fueled innovation during the pandemic. Meanwhile, innovation has been pushing payments beyond a purchasing function, into a role that connects our physical and digital societies. This forms a connective tissue between people, devices, homes, cars and even our virtual avatars. From online marketplaces and streaming videos to cross-border money transfers, nearly all of our digital activities rely on a payment system.

Fueling Innovation

Payment mega-themes such as platforms, online, wallets, embedded, real-time and value-added services are at the core of this impressive innovation. These mega-themes account for nearly $54 trillion in global payment flows.[1]

For instance, the adoption of digital-first business models that leveraged digital platforms and eCommerce marketplaces grew during the pandemic, and they only continue to expand. Meanwhile, embedded payment solutions are adding new layers of convenience to the shopping experience, and demonstrate how financial services can seamlessly integrate into everyday activities. Demands continually increase for convenient, secure and instantaneous payments across any of these experiences, whether it's a customer making an eCommerce purchase or a worker sending money to their home country.

Empowering the Gig Economy

Businesses are also finding innovative ways to use technology such as real-time payments to give gig workers more immediate access to wages earned, which helps empower the financial well-being of hourly workers across our communities.

Likewise, the online economy is transforming how we shop, how we work and even who we are. This year, we saw the combination of eCommerce and digital identity solutions, as well as the growing gig and creator economies that drive new payment innovations and greater global payment volumes.

Then there are cryptocurrencies, stablecoins and tokens. These digital currencies, and others, have emerged over the past few years, and continue to create a need for digital wallets that sit outside of traditional banks, allowing people to store value, transfer funds and make purchases using digital payment rails.

The innovation we saw within payments in 2021 was vibrant and will continue to be so. This is why the next decade of payments promises to be even more transformational than the last. It's why we say "payments are eating the world."

Sources

"PAYMENTS are eating THE WORLD," J.P. Morgan, 2021.

BALA
KUMAR
Chief Product Officer

jumio.

2021: THE YEAR OF **CONSOLIDATION**

We saw fraudsters become increasingly sophisticated in 2021, taking advantage of vulnerabilities and the inadequate security perimeter from remote work. As a result of these growing threats, businesses are now layering countless risk signals from multiple Know Your Customer (KYC) vendors to protect their ecosystems from being hacked into. These factors led to 2021 being the "year of consolidation" for the identity verification industry.

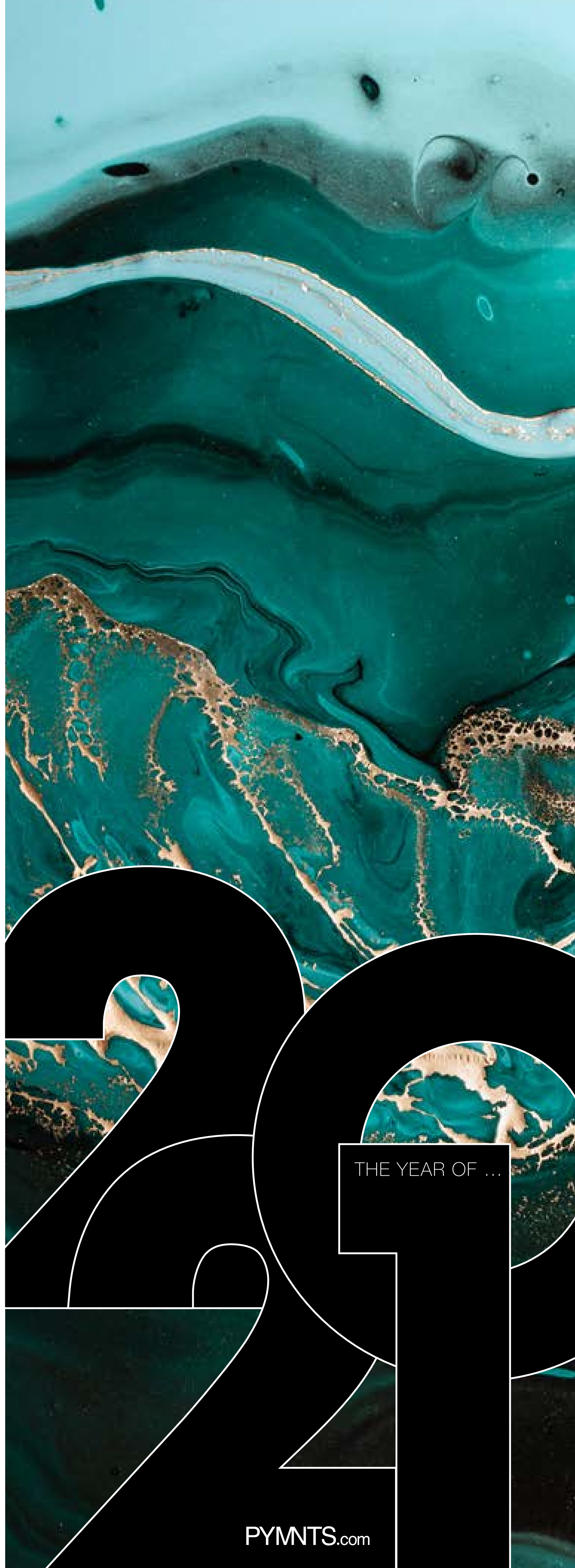
Organizations are now moving toward a single, comprehensive platform that consolidates these capabilities to confirm user identity and maintain compliance effectively and efficiently. It is projected that by 2023, 75% of organizations will leverage a single vendor with strong identity verification capabilities and connections instead of using various other third-party solutions for identity proofing and affirmation, an increase from fewer than 15% in 2020.

In the past, organizations used countless solutions to verify user identity, examine their identification and supporting documentation, authenticate them after every visit, ensure that they are not on any watchlists by conducting ongoing screenings, managing investigations, monitoring their transactions and reporting suspicious activity. However, this approach is not only costly and complicated, but it also cannot adequately spot financial crime and properly verify user identity. Data remains fractured across business unit silos, and valuable intelligence is not shared across customer touchpoints.

By using multiple vendors for verification, organizations may face risks of non-compliance with regulations like KYC, anti-money laundering (AML), data privacy and the Markets in Financial Instruments Directive (MiFID). These regulations enforce enterprises to identify and report unlawful activity such as terrorist financing or money laundering to regulatory agencies. Enterprises with identity verification and transaction monitoring solutions that do not comply with regulations can lose their customers' trust, fall victim to fraud and be charged with costly fines.

Leveraging one consolidated vendor enables enterprises to orchestrate the controls and assurances needed to know and trust their end-users, and helps them achieve high catch rates and low false positives. More importantly, it also connects related transactions, underlying attributes and risk signals to provide a holistic view of every individual and transaction at every customer touchpoint.

Additionally, it delivers a more seamless user experience that verifies consumer or employee data, while providing enhanced authentication using a document such as a government-issued ID. There are also unified platforms that not only assess the risk of an individual, but also the devices associated with them, the IDs they furnish and their facial biometrics — all through a single application programming interface (API) layer. Given these benefits, we can expect to see even more vendor consolidation in KYC in 2022 and beyond.



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2021: THE YEAR OF **INCLUSION**

For retailers, 2021 will be remembered as “the year of inclusion.” The last year presented unique hardships for consumers, who suffered mentally, physically and financially as a result of the COVID-19 pandemic. To meet the needs of customers, and also out of necessity, eCommerce and in-store retailers took steps to be more inclusive, seeking solutions that enable all types of shoppers to purchase necessary items — not just those with high incomes and great credit scores.

During the pandemic, lease-to-own payment options became a growing trend in retail and eCommerce, as leasing provides non-prime consumers with the option to get products they either could not afford to obtain with a single payment or otherwise would have not had the access to obtain.

In a recent study[1] on payment options for the underserved, PYMNTS and Katapult, an eCommerce-focused financial technology company, found that 79 million American consumers have an interest in or have used lease-to-own payment options. This demonstrates that underserved consumers require a better way to get the things they need — and more paths to financial empowerment that are based on fairness and transparency.

The rise of paying in installments or buy now, pay later (BNPL) is giving millions of people access to credit to purchase bigger-ticket durable goods, such as furniture, appliances, tires and more. Still, there are millions more who don't qualify for BNPL due to having poor credit or no credit. We don't believe that's fair, because a simple credit score can't accurately reflect a customer's full ability to be financially responsible.

Leasing to own is not for everyone. For many customers, BNPL is better for smaller purchases. For larger purchases, many consumers look to installment loans to spread out the payments a bit longer. Lease-to-own programs are another option, and they can also offer flexible terms that empower customers to select affordable payment amounts and schedules that fit their budgeting needs.

In 2022, we expect lease-to-own programs to continue to grow in popularity as they build a long-term relationship with buyers by offering customer-centric options, such as fast approval and early buyout options. By ignoring the non-prime market, retailers are missing out on a whole segment of potential buyers. In fact, Katapult's research found that enterprise retailers offering lease-purchase options for durable goods like appliances and electronics typically see a 112% increase in transactions and an 11% increase in conversion rates.

Today's non-prime customers need household products just as much as a prime customer, but often have limited options to purchase those goods. Going forward, inclusion should be at the forefront of retailers' efforts to ensure that individuals and businesses have access to goods and services that meet their needs, regardless of a FICO score.

1 "Retail's Invisibles: Leveraging Flexible Digital Payments to Reach Underserved Durable Goods Customers," DETAILS HERE

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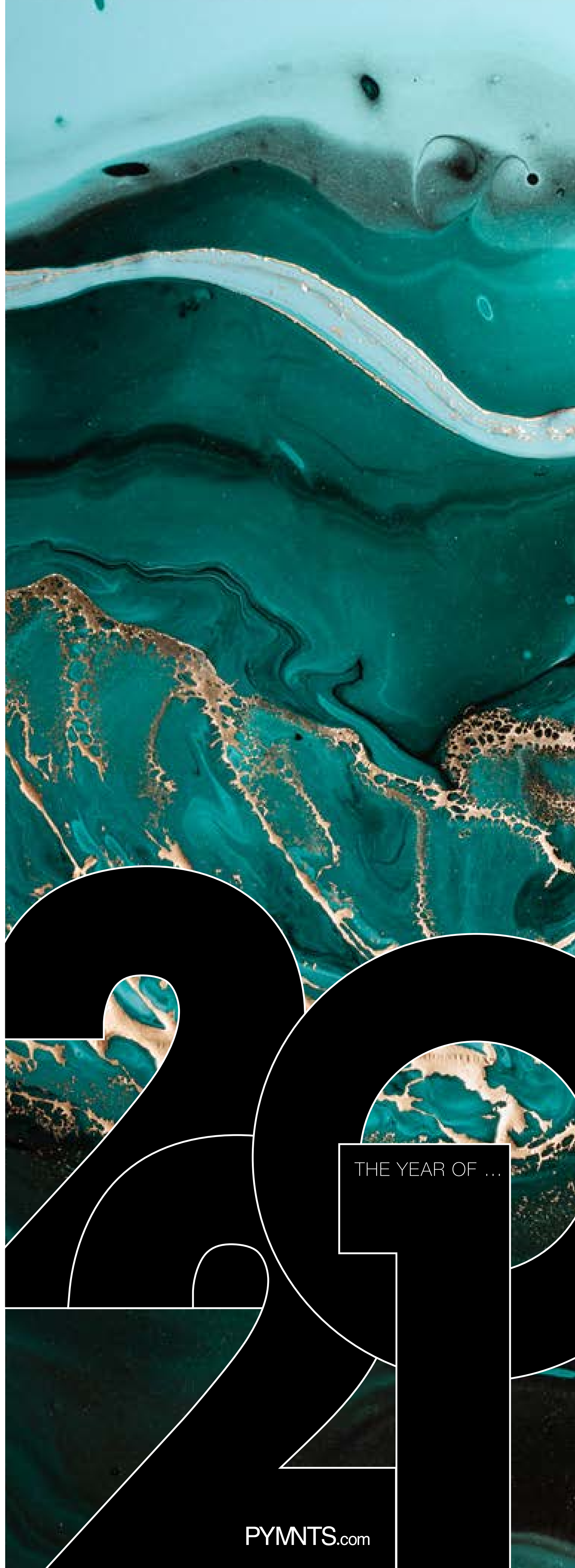
2021: THE YEAR OF **INSIGHTS**

In 2020, as the COVID pandemic forced people around the globe to make purchases — almost exclusively — online, retailers were forced to convert three- to five-year plans into three- to five-month plans. It was the year of the digital-migration acceleration.

As consumers left the confines of their houses in 2021, it would not have surprised me to see the eCommerce growth rate level off. I know that I was eager to spend time and money anywhere other than my home. But some researchers predict a 17.9% year-over-year increase in 2021 eCommerce sales. Those same researchers predict 6.3% year-over-year growth in brick-and-mortar spending in 2021 — the sector's most substantial growth rate in a decade.

But many retailers that accelerated their digital migrations in 2020 were flying blind. They had no history of digital consumer engagement or awareness of the treasure trove of data they could harness from eCommerce transactions. They certainly weren't ready for the risks and fraud challenges that came with these new transactions, but that's a story for another day. As they entered 2021, those retailers were prepared for the challenges to which they'd adapted in 2020. But they were also armed with new channel development, consumer engagement and funnel optimization tools flowing from the data that they were able to collect and create about consumers. As such, 2021 was the year of digital-insight acceleration.

I predict that the digital insights of 2021 will be leveraged to yield a year of digital-enablement acceleration in 2022. Tools unheard of, powered by supervised and unsupervised machine learning, will be developed to further decrease friction in digital interactions of every kind. Market efforts will be refined and optimized. Sales funnels will be enhanced and further personalized. Customer compliance challenges will be addressed without friction. Transaction closings of every sort will become entirely frictionless. Post-transaction cross-sells and up-sells, BNPL opportunities and loyalty programs will become far more efficient and far less risky. And the ultimate beneficiaries will not be the retailers alone, but the consumers as well.



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2021: THE YEAR OF **TRANSFORMATION**

2021 can be summed up in one word: transformative. This last year has shown us how businesses of all types quickly transformed to meet consumers' expectations. Even in the face of unpredictable COVID changes, the prominence of digital-first banks has grown.

Consumers want a digital-first experience tailored to their financial journey, and this expectation is likely to only increase now that they've seen what's possible. COVID has accelerated bank digitalization, which I expect will continue long after the pandemic is over.

As COVID accelerated the adoption and use of online banking experiences, the past two years have shown that banks can't just rely on having a branch close to a customer's home. They must provide and tailor digital services that speak to each customer's unique financial journey. Traditional banks often treat each financial product as a standalone profit center with little insight into each customer's needs or financial health journey. And innovation often comes through acquiring other companies. This places the products themselves at the focus of business growth – not the customers.

Banks that grew this past year typically prioritized and customized their services to individual needs, and FinTech played a key role.

Even before COVID, FinTech had transformed the banking landscape, making it more accessible, personal and transparent. However, the current FinTech model is quite limiting, because FinTechs are still tackling specific profit centers for banks without solving the problem from within. Put simply, many FinTechs are just putting a new front end to traditional banking products. However, true innovation comes from creating a seamless, integrated customer experience that starts with a holistic customer view.

Some FinTechs are starting to realize that the solution is for them to become banks. LendingClub's acquisition of Radius is an example of a FinTech combining with a bank in order to redefine financial services, as compared to completing an acquisition just for a new financial product.

FinTechs and banks have to come together — ultimately for the benefit of customers by providing services and products that meet the needs of their personal financial journey. I anticipate that the next few years will be transformative for the entire banking industry, and will bring more changes as more FinTechs and banks realize this truth.

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2021: THE YEAR OF **EVOLUTION**

By now, we've all heard how the pandemic has accelerated the shift to digital payments. But digitization itself is just a means to what people and businesses have been accelerating toward: greater choice.

Payment options have been steadily increasing for years, driven by consumer demand and new technologies that made things like online checkout, digital wallets and biometric payments possible. Then COVID-19 pushed the digital payment revolution into overdrive, with 63% of consumers saying it led them to try a new payment method, according to Mastercard's New Payments Index.

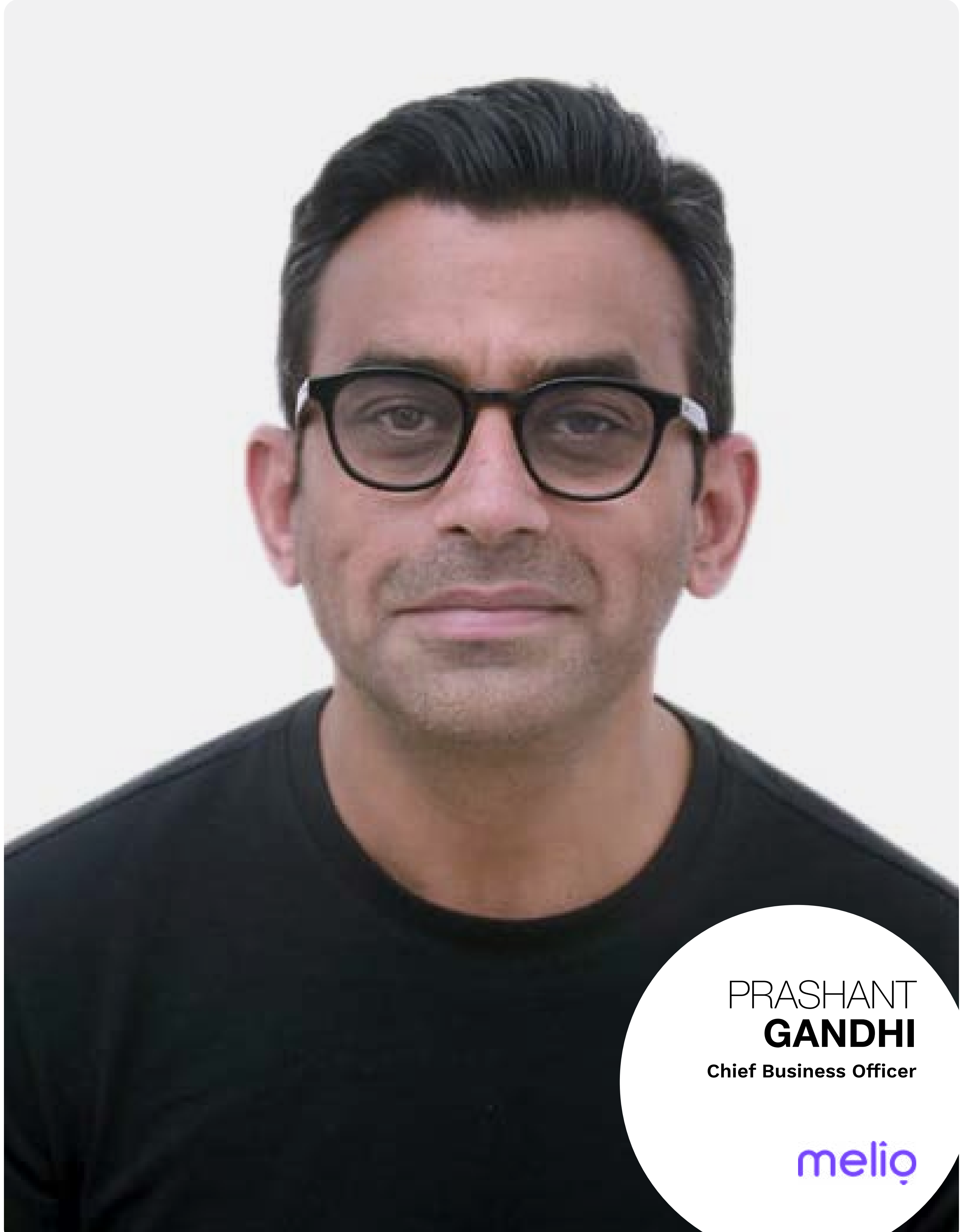
For many, digital payments are now an everyday habit. A whopping 84% of consumers expect to buy what they want, when and how they want — whether they're footing the dinner bill via QR code, sending money via smartphone app to family members abroad, buying products online with crypto or choosing to buy now and pay later at checkout. And 60% of consumers are now paying their bills digitally, according to Mercator. Impressed by the speed, ease and transparency of digital transactions, they have no intention of stopping. Companies that don't offer these choices run the risk of losing business.

In B2B payments, automation is key to unlocking greater choice and efficiency. Early in the pandemic, when no one was at offices to handle paperwork, invoicing and check processing ground to a screeching halt. As a result, 82% of small businesses changed how they send and receive payments, and 51% pivoted their clients to digital payment methods, Mastercard found. Similarly, 88% of technology firms have already implemented payment automation and 46% of larger companies plan to do so in the next year, according to a Mastercard and PYMNTS study. Electronic invoicing, virtual corporate cards, automated accounts payable and bill pay solutions are all top of mind as businesses look to future-proof their operations.

For businesses and consumers, the future of payments is about choice. Consumers are already experiencing the benefits of more options for fast, simple and secure digital payments. And with our open-loop B2B network, we're simplifying and automating commercial payments globally, with rich data exchanges helping to streamline back-end operations for businesses. Buyers and suppliers can pay with the methods they choose, using a single access point that doesn't require the adoption of multiple technologies or the exchange of sensitive banking information.

These features help strengthen customer and company relationships, which can lead to more business. Companies can enjoy efficiencies like working capital improvement, visibility into the payment details, and more choices for customers to pay how and when they like.

The shift to digital that started in 2020 became a reality in 2021, and it's here to stay. Beyond the speed, security and convenience, the greatest benefit to consumer and businesses is that of choice and control — to pay and get paid in the way that best suits their needs.



PRASHANT
GANDHI
Chief Business Officer

2021: THE YEAR OF **ENTREPRENEURS**

COVID-19 turned everyone's lives upside-down, but especially for entrepreneurs, the global health emergency presented a choice of fight or flight. Knowing they had to innovate to succeed, entrepreneurs increasingly turned to digital services to help start, run and grow their businesses. Many embraced eCommerce to remain operational, and consumers favored electronic and contactless payments over cash. The demand even impacted business-to-business (B2B) payments, a space that had traditionally lagged behind business-to-consumer (B2C) in embracing digital technology.

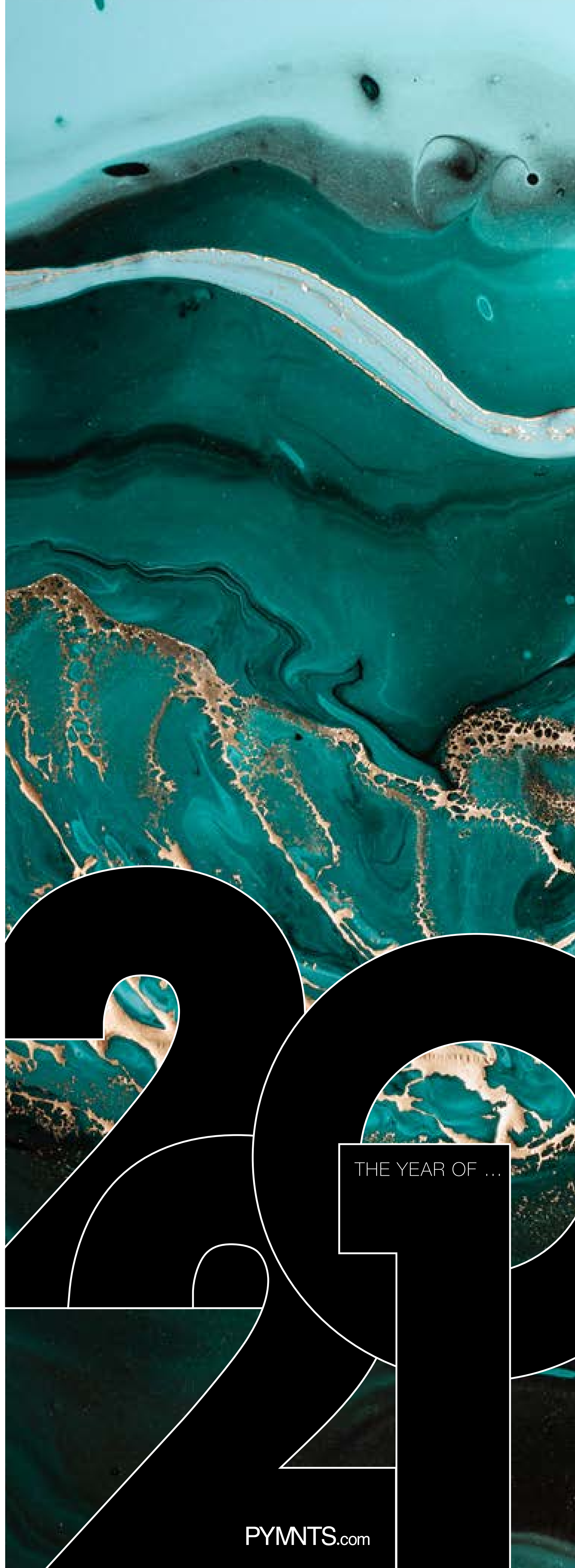
In response to state lockdowns and restrictions, small business owners — entrepreneurs who take on significant financial risk to pursue their passions — began using digital services to improve their cash flow and modernize their payments ecosystems. To inoculate their businesses, they reexamined how to better manage their cash flow through smart payables and receivables management, choosing systems that give them more options on how to fund their obligations and reduce bookkeeping-related work through automated reconciliation.

Technical agility is no longer solely the domain of big business. Today, entrepreneurs of smaller companies have the tools they need to digitize their payment systems — and after making the transition, the impact is profound. Online B2B payments enhance company cash flow, help employees gain more control over their finances, and optimize financial health while improving efficiencies and reducing errors.

Additionally, customers reap the benefits. Eighty-one percent of small businesses say that upgrading to a digital payment solution has improved customer satisfaction, with 73% saying that digital payments will be the new normal for their business going forward.

In the old world of paper checks and manual accounting, nearly 40% of small businesses reported spending five hours or more a week on managing payments. As owners go digital, they reclaim this time for their business. These newfound hours help entrepreneurs do what they do best — innovate.

Even in the face of unprecedented challenges, digital payment tools helped small businesses thrive and adapt in 2021. Looking toward 2022, it is critical that entrepreneurs continue to embrace innovation — including but not limited to the digitization of the payments ecosystem — to push their businesses forward.



2021: THE YEAR OF EMPLOYEE EMPOWERMENT

2021 was a time of digital and online innovation, which led to an overwhelming amount of consumer payment choice. But the phenomenon of having many options to choose from extended beyond the world of eCommerce. Just like today's online consumer wants control over how they pay, employees are finding that they have more employment choices than ever before, and are empowered to take control of how they pay and get paid. Employers who want to attract and retain employees will have to stand out from the crowd and make sure they can offer flexible benefits to help their employees feel more financially stable through higher wages and quicker access to earnings.

Early in the pandemic, many essential workers took on personal risk and worked long hours while others lost their jobs. Now, many of these same hourly wage, frontline and minority employees are more likely to want to leave their jobs, at significantly higher hourly rates than usual, according to Mercer. Hourly-wage employees have always been concerned about being able to pay bills or pay off debt; unfortunately, the pandemic has added more stressors, which has caused many to reassess their career paths entirely. At the same time, millions of employees have been forced to make the tough choice of retiring early, which has created more job vacancies than ever.

Now, American workers are feeling confident that they can find new employment elsewhere. So, what's the common theme that's causing these workforce changes? Employees want to feel valued, heard and compensated appropriately while feeling empowered to take control over their careers and their earnings.

While year-end bonuses may keep some employees content for the short-term, employers must be looking for sustainable solutions to hold onto employees well into the new year and beyond — especially hourly workers who might not be eligible for bonuses. Research shows that more than half (57%) of hourly workers say they feel financially insecure, which can lead to stress and lower productivity for employees and employers, which translates into less profit.

Another key trend that has emerged is workers wanting their employers to do more to support their financial health with on-demand access to income through earned wage access solutions. In fact, workers would consider changing employers to get earlier access to wages they've earned, with 79% of workers interested in working for employers who provide on-demand access to wages.

Many employers are trying to keep employees by offering more creative compensation packages. Clearly, wage rates have been the primary factor for employers trying to attract hourly workers. However, in today's employment marketplace, how workers get paid is just as important when it comes to employment preferences and selection. It's essential that employers better understand what they can do, beyond raising wages, to ensure that their workforce feels financially stable and confident.

My prediction for the new year? Employers who provide comprehensive financial wellness platforms to help their workforce manage and stabilize their financial security will stand out in the hiring crowd and be able to attract and retain workers who will be more loyal, productive and financially stable.

2021: THE YEAR OF **DISRUPTION**

Over the past 24 months, we have seen major disruption, as all industries have had to adapt to the new normal of a digital-first world. The pandemic has rapidly accelerated the diffusion of innovation and pushed new technologies to the forefront. We are now accustomed to Zoom meetings and working remotely, and have adopted new software and workflow solutions to adjust. When we sit back and reflect over the last period, we realize that regardless of the industry, companies that were digitally ready pre-pandemic were able to more efficiently compete and thrive — from retail, eCommerce and logistics to banking and payments.

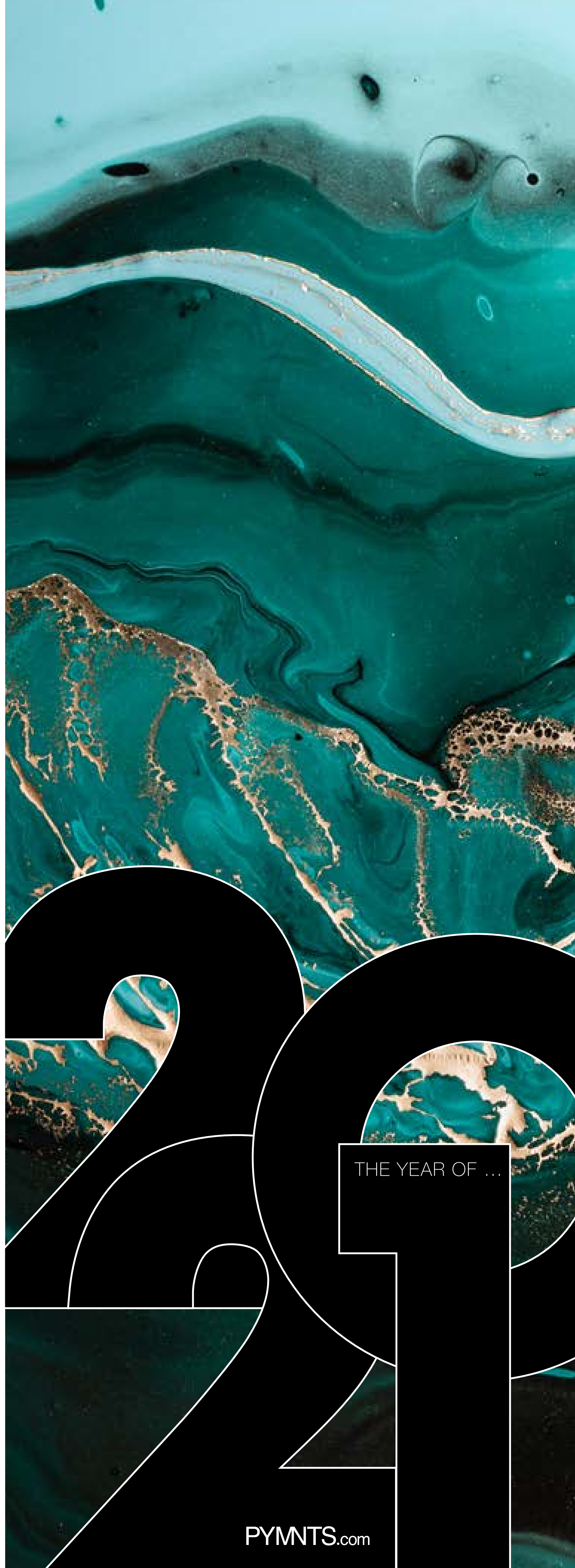
It has been the perfect storm of consumer digital readiness meeting technological innovation. Consumers of all ages are experimenting with new technologies and platforms — it is not necessarily limited to the younger generations of millennials or Gen Z. The result has been an explosion of the usage of eCommerce, contactless payment, cash apps and digital wallets across the world. What may have taken years to become mainstream is now the norm.

We have seen that investors are eager to participate in these trends through big bets on disruptive technologies. The infusion of capital has led to explosive innovation — especially in FinTech — with the development of new features, trends and business lines, along with record-breaking startup valuations. Right now, there are no boundaries to the creation of new businesses that provide the best user experience and satisfy consumer needs. Incumbents are being tested, and must either rapidly transform themselves or partner with growing FinTech companies in order to thrive in the increasingly digital-first ecosystem. It is clear that the future is fast – and the future is digital.

I question whether we would be seeing this magnitude of innovation at any other point in time. Some technologies and/or trends have been around for a while, but it has not been until this moment that the market has been ready to take adoption to the next level. For example, cryptocurrency values have soared as their use cases have grown, and the ability to trade and transact has become easier. BNPL, or installment payments, have long been present in international markets, but have only recently become prevalent in more mature markets like the U.S. and Europe as merchants leverage it as a way to boost sales while satisfying customer needs.

Across the board, consumers now have more options than ever before. What differentiates one product from another is not necessarily only robust features or services, but also a strong user experience and the ability to connect with the consumer in a meaningful way that provides value. With this, we have seen more companies place an emphasis on loyalty through rewards programs that give the customer the power and flexibility to spend the way they want. We anticipate further disruption in this space to encompass some of the aforementioned trends like crypto and installment payments.

Ultimately, the consumer is in the driver's seat — disruption will continue to be driven by their demands and market participants' ability to meet them.



2021: THE YEAR OF **WFH AND INCREASED FRAUD**

If we had any doubts, in 2021 it was established that work-from-home and hybrid work models are here to stay. What started as a necessity forced by the pandemic has now turned into something employees demand and many organizations appreciate.

While the pandemic and WFH present organizations with many challenges, let's focus on the impact this has made on organizations in their attempt to protect payments against cyberfraud.

Increased Fraudster Activity

According to a survey by the Treasury Coalition, fraud attempts have increased 36% since the outbreak of the pandemic. And with so many people working from home, it's become harder than ever for finance professionals to protect the company's payments while ensuring finance-related business continuity.

Harder-to-Maintain Processes

There are so many new vulnerabilities that have been exposed. An attack can happen during a payee onboarding process, when banking details change requests come in, when banking data is "at rest" stored in an ERP system and during the payment process.

With people working from home, each of these processes introduces a new set of challenges. For example, when trying to call a supplier in their office, as part of the best-practice process of verifying banking details, people are just not in the office and are not answering the phone. It has become too difficult to find the right person to speak with, and the required procedures are not being followed.

Advanced Technology as a Weapon

To make things even more complicated, now that we're communicating using cell phones more and more, fraudsters are using advanced technologies such as artificial intelligence (AI)-based voice cloning to dupe unsuspecting employees into authorizing payments to fraudulent accounts.

Vulnerabilities With WFH Technology and Communications

When working from home, employees use their home Wi-Fi to connect to work-related systems. Home networks are not secure as those in the office. Moreover, personal devices are used to perform work-related tasks more often these days, further deepening the vulnerabilities.

The Bad Insiders Challenge

Outsiders are not the only threat. Insider fraud is also growing. The Global Economic Crime and Fraud Survey published by PwC indicates that 50% of economic crimes are committed by insiders. And with increased pressure felt by employees, and less control by their managers, more and more employees are rationalizing stealing money from their company.

Making Things Better

So, the pandemic and WFH have resulted in increased fraudster activity, difficulty to maintain processes and new vulnerabilities. Protecting payments is harder than ever.

But there are still things to do.

First, collaborate with your IT and information security teams to ensure infrastructure security, considering that working from home is part of the new working model.

Second, implement updated best practice processes. Adjust key processes and publish a new baseline.

And third, introduce technology and automation to payment-related processes. We at nsKnox would love to help reduce reliance on manual, error-prone controls for payee onboarding and account validation, as well as payment validation processes.

BALA
JANAKIRAMAN
CEO

2021: THE YEAR OF **ADAPTABILITY**

“Adapt” comes from the Latin *adaptare*, meaning “to fit.” As the pandemic continued to impact the way we live and work throughout 2021, I saw many courageous people, including my team at Onbe, move out of survival mode and shift to actively finding — and fine-tuning — solutions that fit the needs of our new reality.

Yes, we all hoped 2021 would turn out to be easier than it was. But the upside is that many of us began to view our current situation as changeable rather than frightening and fixed. Adjusting our processes, beliefs and ourselves didn’t happen overnight – but as 2021 unfolded, so did the many ways individuals and organizations have adapted to meet the moment.

As the CEO of a corporate disbursements FinTech, I'm particularly inspired by the ways businesses have transformed their payment processes. Organizations have been quick to embrace digital transformation so they can better enable their customers and workforces to conduct life's activities remotely when necessary. They've adopted automation and other measures that boost efficiency and cost savings while delivering a better user experience. And at Onbe, we've helped many of our customers move away from legacy disbursement methods that were no longer serving them and their recipients, toward payment capabilities that empower organizations to pay quickly, reliably, conveniently, securely, across borders and at scale — in short, everything a modern business needs to meet the future.

The past year has revealed that adaptation is not always a choice, but a prerogative. And despite the undeniable challenges the business community (and society) has faced in 2021, many benefits have come out of needing to change the ways we've always done things — including the ways that we pay.

Speaking just to Onbe's corner of the payments world, some of these benefits include achieving faster and more flexible ways to deliver funds, freeing up overburdened employees by automating disbursements, saving time and resources by switching from physical to virtual payments, and arriving at payment strategies that better fit the way we live and work today.

Often, adaptation is invisible; each of us adjusts in many small yet cumulative ways to our changing world. But the past year has both accelerated change and moved it to the forefront of our collective consciousness. As a result, we've been able to more intentionally shape the present — and plan for the future we want to see.

In short, we should all be proud of the many people, businesses and community institutions who worked together to respond to our world's immediate yet ongoing needs for greater flexibility, efficiency and accessibility. I'm confident that in 2022, we'll continue to adapt in resourceful and innovative ways to whatever comes next.

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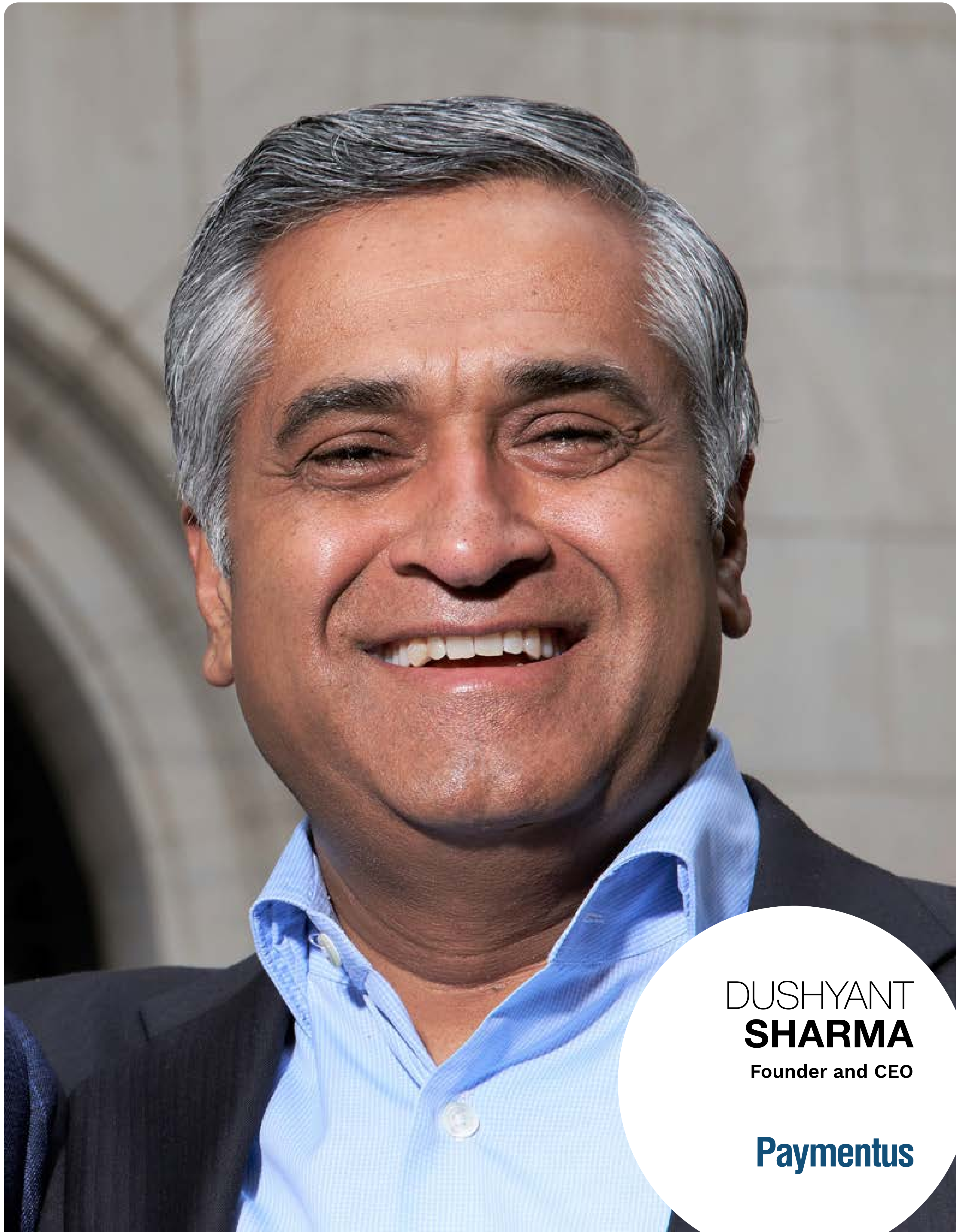


2021: THE YEAR OF **UNRAVELING**

The primary lesson of 2021 didn't take root in 2020. It is much older and goes much deeper than just businesses reacting to the shifting realities of operating during a global pandemic.

Customer experience (CX) has always been a consideration for businesses and service providers of all types. But disruptive forces like the explosion of digital commerce and the rise of challenger brands intent on upending traditional business models turned CX into a buzzworthy concept. In a world where consumers interact and engage with organizations across multiple touchpoints, understanding — and more importantly, "optimizing" —

the customer journey emerged as a critical business function.

Over the past decade, businesses of all types retooled their systems and processes to better understand and align with the customer journey. A primary focus for most businesses was establishing and growing an omnichannel presence to ensure consistent brand interactions at every possible touchpoint. Yet, for many, updating the simple process of sending a bill and receiving payment remained a business blind spot.

Billing has historically been regarded as an accounting function — and treated with all the enthusiasm and passion that accounting systems typically generate. In reality, billing is one of the most critical customer touchpoints across any organization, and functions more like a measure of customer satisfaction than an accounting ledger. Through this lens, billing experience (BX) drives CX. Plus, getting paid is the lifeblood of any organization.

Given that the average U.S. household juggles between 12 and 15 recurring monthly bills to the tune of $4 trillion in annual spending, one would assume that modernizing bill pay — even to just realize the benefits of improved on-time and in-full payments — would be a top priority for billers and financial institutions.

Yet, for many, bill pay remained a largely unintelligent and siloed system. Here's a personal example of what I mean: My 22-year-old daughter is now responsible for paying her own bills — a personal blessing. As a proud member of Gen Z, she enrolled in bank bill pay for her credit card payments, expecting it to be a seamless and efficient way to ensure that her bill was paid on time. What she didn't realize — and what many consumers don't — is that most bank bill pay systems are little more than a digital interface to a manual process. There is often no connectivity between financial institution and biller. Instead, the bank mails a physical check. The biller receives no notification that a payment has been initiated. The bank does not receive confirmation that the payment has been received — and the customer is left wondering.

You can imagine my daughter's surprise, then, when instead of her bank mailing a check to her credit card company, the bank instead mailed a check to her — its own customer, from her own account!

In a panic, she called me for advice. I told her to try paying her bill through a digital wallet, such as PayPal. Within just a few seconds on her phone, she found her credit card company, entered her account information, made a payment and received an instant confirmation that her payment was received.

Which of these two experiences do modern consumers expect? Which of these serves both the biller and the consumer better? It's pretty obvious. After almost two years of managing every aspect of our lives digitally, we have little patience — and even less tolerance — for inefficient and un-intelligent BX.

In my more than 20 years in this industry, I have never experienced such rapid interest in — or uptake of — new omnichannel, intelligent billing and payments solutions. 2021 served as a great awakening for the industry. Billers and financial institutions have realized that with the right tools, they can radically transform the customer billing experience practically overnight, while driving operational efficiencies and reducing the cost to serve. It is the mythical "win-win" that every organization seeks.

What's more, innovation is transforming billing, payments and customer service into a cohesive, data-rich ecosystem. Next on the evolutionary pathway will be using AI and machine learning to tap this sea of data to drive real-time insights that further enhance the customer experience, bolster operational efficiencies and improve customer service, satisfaction and loyalty.

2021: THE YEAR OF **REINVENTION**

If 2020 was a year of adaptation, then 2021 was a year of reinvention. Governments reinvented how they provide assistance and relief during the pandemic and the length at which the programs needed to be offered. In fact, these programs kicked off 2021, helping people manage their finances – both personal and business-related. Government programs were extended to navigate the challenges of an ongoing pandemic.

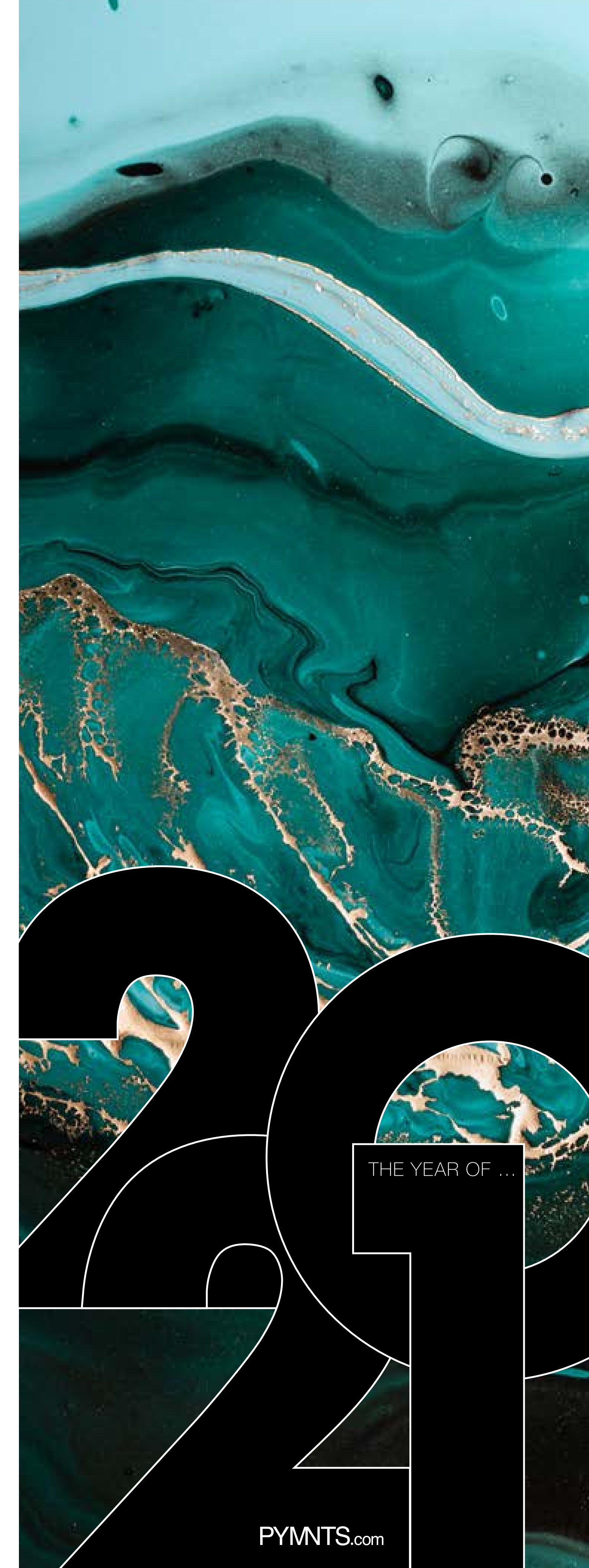
The long-tail economic challenges of the pandemic came to fruition, as labor shortages and supply chain issues impacted businesses just in time for the holiday shopping season. Unfortunately, this is happening during a season that many believed would be more successful than past years, forcing even more strain on the system. Large companies are offering higher wages and new benefits to prospective hires, while chartering planes and cargo ships to ensure that they have products on the shelves as people shop. These pivots are leading to a reinvention of employee expectations as well as inventory and supply chain management across a variety of industries.

While large companies have the resources to navigate these challenges, small businesses don’t necessarily have that luxury. They may have been forced to reinvent themselves by improving their online presence, providing omnichannel experiences, offering new payment methods and finding ways to attract new customers. This could require exploring new sales channels such as online marketplaces or investing in new marketing — but whatever it is, small business owners need access to capital in a market that has tightened over the past 24 months.

The small business lending industry is recognizing the need to provide easier access to capital. It is critical that lenders get access to additional data to be considered during the application process from APIs or open banking. This could allow for stronger applications, which could lead to small businesses receiving capital to be even more successful. In turn, successful small businesses create a stronger global economic recovery.

This year, we introduced the first version of the new PayPal app to make it a one-stop destination for our customers to take charge of their everyday financial lives. New features like access to high-yield savings, in-app shopping tools for customers to find deals and earn cash-back rewards, early-access direct deposit, and bill pay offer customers a simplified, secure and personalized experience. We’ve also rolled out buy now, pay later into new countries. This type of solution services all of our customers: Merchants are paid upfront and see an increased average order volume, while consumers are able to spread their payments across six weeks. We’ve also looked at how we help small businesses that are struggling to access capital — and we’ve had to rethink how to help as many SMBs as we can.

Everyone has had to reinvent themselves over the last 12 months, learning from the past and planning for the unknown future. By reinventing how we help people and companies recover from 2020 and adapting to help them in the future, an even stronger recovery can be achieved.



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ANDREW
ROBBINS
CEO

PAYTRONIX

2021: THE YEAR OF **GHOST**

When we all first started hearing about ghost kitchens, it was a simple idea: Commercial kitchens placed in spaces that don't normally work as restaurants, designed to produce food sold exclusively through online channels. The idea itself predates the pandemic, but it truly started taking off when COVID quickly shifted the world to digital ordering and delivery.

When that happened, brands had a couple of major realizations. Initially, they discovered the digital-first economy in which the brand experience happened almost exclusively over a mobile device. For many restaurants, however, digital demand for their own brands wasn't enough volume to reach profitability. Some restaurants got the idea to create their own delivery-only ghost brands to increase reach and fill their kitchens. High-profile successes like Chili's, with the launch of It's Just Wings, led the way — and now some chains use as many as 15 delivery-only ghost brands out of a single location.

That led them to a truly revolutionary concept: A restaurant brand can be disconnected from its physical locations and, in many cases, increase revenue by outsourcing the making of food. In other words, we're watching the ghosts grow in two directions. On one side, you have a restaurant learning how to turn its kitchen into a production facility for multiple brands, helping to reach new audiences and drive additional revenue. On the other side, you have commercial kitchens emerging in spaces like warehouses and parking lots, to become production facilities for the brands that hire them. If Chili's can create a new brand out of thin air and be successful without the consumer understanding the connection between brands, then non-restaurant companies can be successful with the same strategy.

The restaurant industry survived the first onslaught of software eating the world, which started with DoorDash and Grubhub disintermediating the market with delivery. It quickly learned that you can't just own a website, but you must have a kitchen — so now the software revolution is entering the "Kitchen Wars," in which every restaurant, no matter how small, finds the opportunity to launch multiple brands or multiple locations without a major investment.

And who can run the kitchen is being tested as well. Reef, which had been known only as a parking lot company, is now installing ghost kitchens on its properties and selling access to brands. Even the social media platform TikTok is getting into the game, partnering with Virtual Dining Concepts and Grubhub to launch new brands. Virtual Dining Concepts is connected to Earl Enterprises and its existing restaurant brands, bringing those locations additional revenue with a new line of virtual brands.

Consumers are now primed to start with digital search when they get hungry, so who is going to win? Is the customer searching for a brand or a product? Is the brand a strong factor in their short-term purchasing decision, or does anyone with a kitchen who can deliver food in time win that search-based transaction? Of course, in-person dining remains strong, and we've seen evidence that people want to have these experiences — but where will the balance lie and how will brands adjust?

We'll need something more substantial than ghosts to know for certain.

2021: THE YEAR OF **ACCLIMATION**

In 2020, small businesses scrambled to adapt to lockdowns and new remote work protocols. Businesses where legacy, paper-based ways of paying vendors and getting paid were still predominant were very suddenly faced with a new reality. They needed digital and distributed ways to process payments in order to keep their businesses running. Businesses from across the spectrum had to retool to survive. Construction companies had to reevaluate safety protocols, brick-and-mortar retailers had to pivot to digital, and everyone had to learn how to be significantly more flexible.

In other words, they had to acclimate.

Climbing the Mountain

For mountain climbers, acclimating to higher elevation is critical for success and survival. 2021 proved that businesses are no different. The ones that failed to acclimate did not survive. However, the ones that were able to acclimate to the new business environment thrived.

Fashion retailer UniversalStandard.com had to consider the future viability of physical store locations while ensuring that inventory from overseas vendors could be secured without disruption, all while doubling down on the need to reach consumers exclusively online.

Cosmetics manufacturer Dynamic Blending had to quickly automate payables, where the race to lock in supplies meant finding the fastest way to get large sums of money to vendors across the globe.

Construction company Blue Azalea's owner Joe Di Zazzo struggled with ensuring that large-scale projects stayed on track in a time when supplies are scarce and deliverability is uncertain.

Paying suppliers faster than the next guy for many businesses translates directly into positive results for their revenue stream and a competitive edge. Paying quickly and communicating payment delivery is paramount, as it keeps critical vendors committed to the success of the business.

When 2021 presented these businesses with a new landscape, they acclimated. They got savvy and speedy with their payments and did away with suddenly outdated ways of doing business. They moved to all-digital tools for paying and getting paid, found ways to optimize workflows and took the time to automate back-office processes. The consumerization of enterprise software and B2B payments made acclimation a smoother transition for the traditionally non-technical business operator.

The Next Summit

2021 saw great change, but businesses will have to keep acclimating to an ever-changing environment going forward. Juggernaut consulting firms like McKinsey predict there is over $1 trillion in global value to be unlocked globally from improving payments automation. Smaller businesses that were slower to acclimate to digital before COVID are poised to reap the biggest benefit.

A few of my predictions for the next phase of SMB acclimation:

- Small businesses will be moving every aspect of their back office to digital: Connecting all employees into automated workflows and having a central place from where to orchestrate payments, vendor management, accounting reconciliation and customer data will be the next mountain to climb.
- Improved automated notifications: Real-time alerts will ensure that businesses know instantly if something will adversely affect an order or when they can sit back and relax, knowing a deal is locked in.
- More real-time intelligence: Cash flow prediction tools will help them know how best to fund expenses, be it from a bank account, credit cards, line of credit or even via buy now, pay later options.
- Smarter customer outreach: Reaching customers where they are and offering a multi-channel approach to getting paid will become table stakes — making it easy to get paid in multiple ways that all automatically reconcile incoming payments to your accounting system and accelerate collection.

Incoming and outgoing payments — where everything syncs and reconciles automatically — will help small businesses spend more time on worthwhile tasks that are essential to growing their business, so they can acclimate fast to whatever mountain is next on the horizon.

2021: THE YEAR OF **IMPACT**

Reflecting back on 2021, a storyline worth highlighting is the continued economic growth and effectiveness of pandemic-era innovation. In 2020, faced with nearly impossible odds and incredible uncertainty, businesses innovated and improvised as a matter of survival.

Hospitality venues navigated to take-out only, curbside pickup and mobile ordering. Landscapers, HVAC installers, electricians, cement providers, builders and plumbers, with no office staff to speak of, embraced digital invoicing and remote payment solutions. Medical professionals incorporated virtual visits, telemedicine and contactless point of care with mobile and installment payment options. Even landlords, with no property management staff on-site, embraced the quick adoption of digital rent collections and vendor management. In short, the evidence for the commercial evolution to digital payment solutions and automated revenue tools in 2020 is widespread.

However, as things returned to some semblance of normal in 2021, pandemic-era innovation didn't get pushed aside as some had predicted. Instead, they continued to dominate a growth trend that appears to be foundational to the evolution of modern commerce.

This trend was highlighted in a recent study of CFOs from organizations generating $400 million to $2 billion in revenue by PYMNTS and Corcentric, which found that 71% increased their businesses' usage of digital payments since March 2020, 87% use fewer manual payment methods (e.g., check and cash) and 59% believe payments digitization is key to maintaining a healthy balance sheet. In addition, 84% said that digitization improved working capital, among other benefits such as enhanced efficiency, reduced costs and stronger data security.

As the study suggests, this trend greatly impacted both the demand and supply side of business. In fact, it appears that pandemic-era innovation may have had a more transformational and lasting effect on supply chain operations at upper middle-market and enterprise companies. For example, during the pandemic, entire AP, AR, and finance teams were no longer together, and were met with the challenges of the remote environment and staffing shortages that hamstrung

operations. Payment operations and automation, particularly around managing money movement, went from nice-to-have to must-have.

It is our view that the winners in the race to meet the demands of increasingly sophisticated payment flows associated with modern commerce will be won by those utilizing payment platforms that combine features of payments and banking — platforms that not only provide demand- and supply-side payment rails, but also offer embedded features of modern banking that escrow funds like a bank, but faster and with less friction. At Priority, we are building with intention toward the convergence of payments with embedded banking by offering a single platform to collect, store and send money that can quickly modernize legacy platforms and accelerate our partners' effort to monetize payments.

Leveraging our tools allows partners to stop expending operational energy in maintaining and reconciling legacy systems, or making risky bets building new technology, so they can focus on customer demands to drive revenue while lowering overall operating expense.

2021: THE YEAR OF ACCELERATION

At PSCU, we have come to refer to the COVID-19 pandemic as "The Great Accelerator." Throughout 2021, the economy and its outlook have ebbed and flowed. As a result of the global pandemic, the world has been forced to grapple with varied consumer confidence and spending levels, labor shortages, supply chain issues and more. Consumer preferences rapidly evolved, and financial institutions' long-term innovation plans became immediate needs. While 2020 saw unprecedented levels of transition and change, 2021 was the year of acceleration.

The accelerated shift to digital-positioned offerings and tools like contactless cards, mobile wallets, digital issuance, digital banking solutions and more at the top of FIs' lists of priorities – and consumer behavior proves this trend is here to stay.

In PSCU's 2021 Eye on Payments study, consumers who reported using a mobile wallet in the past 60 days increased by 50% from 2019 (14%) to 2021 (21%), with 30% reporting that they use a mobile wallet at least a few times per month. Eighty-six percent of respondents with a contactless card use it at least a few times per year, as opposed to only 65% pre-pandemic. At the same time, 57% of all respondents utilize digital payment methods at least periodically, as opposed to 49% in 2020 and 42% in 2019. Consumers are also reporting strong interest in emerging payments and offerings such as cryptocurrency and installment payments, or buy now, pay later (BNPL).

Even with the shift to digital, it has become increasingly clear that consumers want and expect personalization. Tech giants like Amazon, Netflix and Spotify have introduced extreme personalization to consumers when shopping online, ordering groceries, watching TV or listening to their favorite podcast. When it comes to what consumers now expect from their financial services providers, they want to do business with a financial institution that knows them personally.

With the acceleration of digital channels and personalization, it is more important than ever for FIs to meet consumers where they are, providing an exceptional experience in the channel – or channels – of their choice. Now is the time for FIs to shift the narrative and define how they can effectively leverage the right tools and data to establish a different kind of engagement model, driven by analytics. This will enable FIs to use data to create connected experiences tailored to consumers' individual needs. Harnessing data to better understand how consumers interact with their financial institutions – including how, when and through which channel they transact – will help fuel proactive connections via multiple channels.

Looking ahead to 2022, we do not expect this acceleration to slow – just the opposite, in fact. FIs should embrace acceleration and maintain the positive momentum we collectively experienced in 2021 in order to continue providing consumers with the right mix of tools and solutions for seamless, connected experiences.

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2021: THE YEAR OF **NOW**

For the first chapter of the last two years, we as a nation were stagnant. We waited, waited and waited some more for a future in which we could hug friends and family, return to malls or get back to the office.

Consumers spent a lot of time waiting over the last year. Waiting for items they needed to come in stock, waiting to take trips, waiting for stimulus checks to come in the mail. But now, as we turn the corner, it's time for consumers to get what they want now. There's a new normal in the way we've relearned to do certain aspects of our lives in the past 12 months – but more than anything over the past year, we as a community learned that our time is now.

Time doesn't stop for a global pandemic.

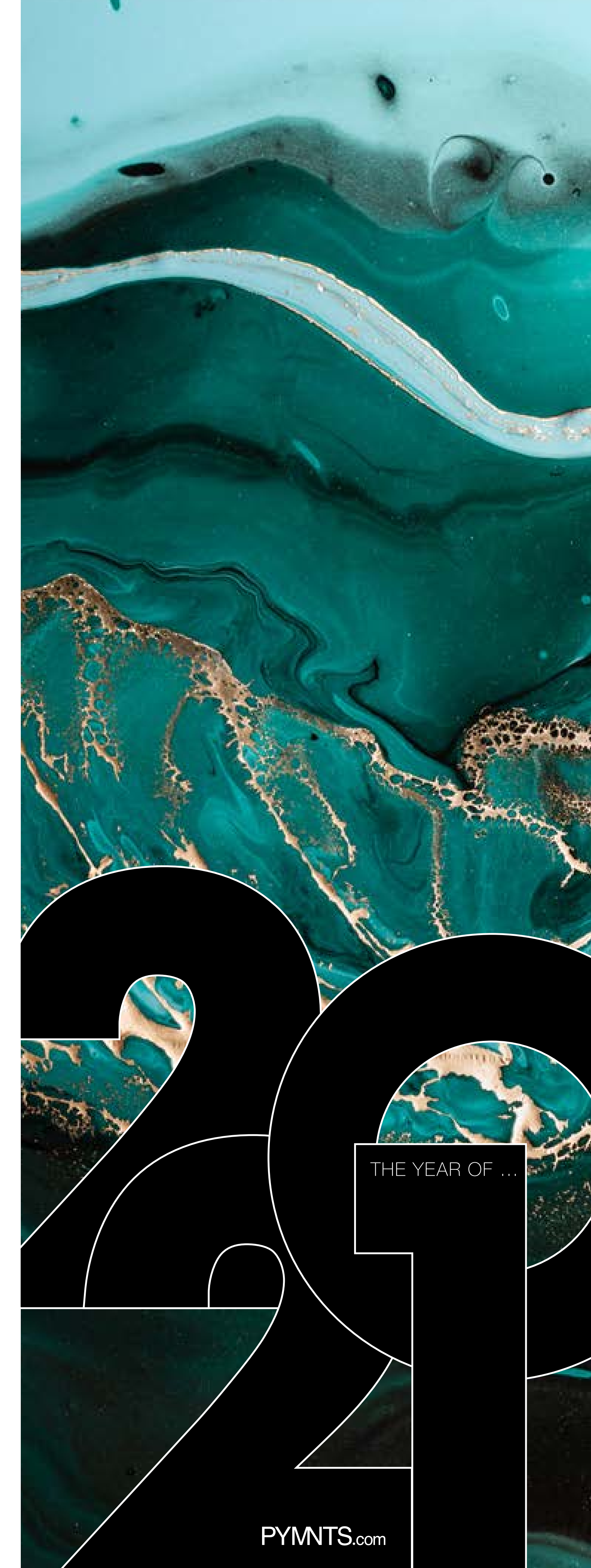
The digital payments movement swelled in the past year, as payment companies realized the importance of now and leaped at the opportunity to meet consumers on their own terms. Buy now, pat later (BNPL) introduced the ability to provide consumers with what they need now, by allowing them to save money over time and pay in installments, rather than waiting.

In the payments industry, BNPL had the spotlight this year. The use of BNPL globally during Cyber Week jumped 29% year over year, according to Salesforce data. Over 61% of respondents ages 18 to 24 said in 2021 that they had used a BNPL service — a figure significantly higher than the almost 38% recorded in a previous survey in 2020.

According to Sezzle user survey data, the No. 1 reason shoppers are choosing BNPL is that they have the ability to pay only a portion upfront, but receive their purchase immediately. We have become a nation of instant gratification, whether that's through receiving likes on Instagram or followers on TikTok –– consumers can open their phones and receive gratification at the click of a button. This way of life spills over into all economies and industries – waiting is simply no longer an option, especially if you want shoppers to stick by your side.

The need for now became even more prevalent in a post-pandemic world. Many consumers are still wary of in-store shopping. Buy now, pay later is the star of pandemic payments and our future, because we take the waiting out of layaway. We take the fear, interest and debt out of splitting payments. We bring our shoppers exactly what they want, and we bring it to them now.

This year was a year like never before, but we saw humanity come together to rebuild. Yet as we rebuilt, the exponential growth of digitality did not pause to consider a global pandemic. The digital growth continued, payments slid toward a cashless economy and gratification became instantaneous for consumers. As we go into 2022, I think we should celebrate the drive, determination and itch for now that 2021 brought us.



2021: THE YEAR OF **POSSIBILITY**

If the last year has taught us anything, it's that we are all operating in an incredibly complex payment ecosystem. And there is an ever-present need to maximize payment flexibility in order to address this complexity.

Everyone wants to grow their revenue. But driving ever faster growth requires constant business and technical innovation. Innovative companies constantly push the boundaries of their infrastructure to expand into new geographies, markets and business lines, or to respond to COVID-induced consumer buying behavior changes. Yet the demands they place on their business are often constrained by technical limitations – and this ever-increasing complexity.

As business needs change and complexity grows, payment strategies must adapt. Adding to this challenge is the simple fact that every payment strategy is unique. Having the flexibility to adapt payment processes to support the business' needs — while avoiding infrastructure burdens, supporting growth and taking advantage of optimization — is the goal.

This is the true promise of orchestrating payment services. Having a payments orchestration strategy is critical to managing and affecting change, quickly and securely.

Merchants and platforms need to adapt their payments strategy, quickly and without limits, to maximize every single transaction. Our customers understand that pairing the right payments strategy with the right mix of payment services will positively impact their bottom line through higher authorization rates, lower fraud and a better customer experience. They also know that the best time to get to market was yesterday – and the best way to grow is as fast as they can.

Payment service providers need to adapt to the needs of their customers as well. Our partners understand that they need to land and retain a growing number of merchants and platforms that want a multi-provider approach. Offering that flexibility to prospects and customers has become a critical part of PSPs' go-to-market strategies.

A combination of deep payment industry relationships, diverse integrations and a unique industry perspective is needed to shepherd in the next generation of payments. We know that a diversified, inclusive payment ecosystem helps businesses scale with confidence and speed.

We believe that a payments platform that is open and flexible, and that allows organizations to optimize and accelerate their business, is no longer an option -- it is the core of what drives the business.

We also know that payments orchestration offers the much-needed solution to turn possibilities into payments.

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2021: THE YEAR OF **EXPERIENCE**

Many of the digital transformation projects that businesses put in high gear during the pandemic flourished in 2021, improving the user experience across multiple dimensions — in areas as diverse as online and offline shopping and business workflows.

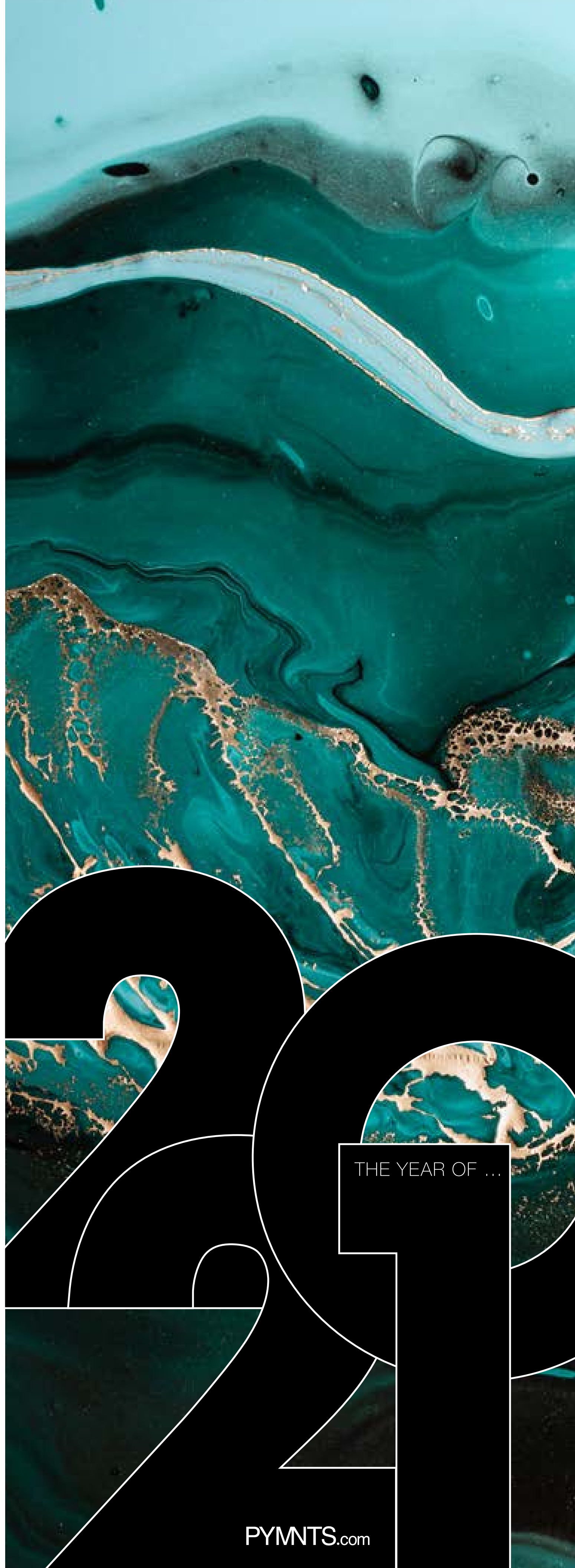
That's why my word of the year is "experience." The way people experience payments and finance is transforming rapidly, becoming simpler, faster and even more fun. This reinvention is driven by both cultural and business imperatives. Accustomed to apps like TikTok, which enable individuals to create and consume content rapidly, millennial and Gen Z consumers are demanding the same kind of intuitive experience in every aspect of their digital lives, including their journey with financial services products.

At Synchrony, we have long prioritized the user experience. We have more 60 million customers and 65 million active accounts, which generate useful customer data to tailor that experience. We have invested in technologies that let us manage trillions of data points and extract insights to improve the services we provide. We are constantly learning from data — from every piece of merchandise customers buy to the financing products they use.

For example, Synchrony has about a dozen financing options and is working to use analytics to identify the right product for each customer. In this way, we offer them the right product for every stage of life's journey.

But the focus on user experience extends beyond shopping. Businesses are improving the consumer experience by embedding payments into workflows, decluttering and speeding up checkout. The idea is to streamline, simplify and empower. Consider Clover, a point-of-sale and business management platform from Fiserv that offers a wide array of business apps available through the Clover App Market. Businesses simply choose the apps they need as they need them. By making our products and capabilities available through the App Market, Synchrony can improve the experience and usability for both employees and consumers, and drive conversions. The functionality is right there when they need it.

For all these reasons, "experience" is the word that best captures the promise of this moment. Improving the experience in payments and commerce has the potential to increase sales, build customer loyalty and drive consumer, merchant and employee workforce optimization. That is why companies should continue to focus on it in 2022 and beyond.



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CARL
CHURCHILL

Managing Director

technologi Worldwide

2021: THE YEAR OF **ACCESS**

In the payments industry, the concept of “access” has become more relevant in 2021 than perhaps any other year – access to new innovation for merchants and access to alternative payment methods, making it easier and more flexible for consumers to buy and pay for products and services. Improved access has been the difference between surviving and even thriving during 2021 – or becoming another unfortunate statistic. The pandemic has not just created a new chapter in the payments industry, but it has rewritten the entire book – and we are nowhere near the end of the change it will have and the impact it will make.

Access to New Innovation for Merchants

Before we can even think of innovation in terms of the services payment providers offer to their merchant customers, we must first acknowledge the change that payment providers have made to provide access to the service itself. With changing restrictions, a focus on employee safety and resistance from customers, the appetite for face-to-face sales activity has all but fallen away.

With distributed teams and work-from-home orders, the ability to engage a team for manual application processing has also been a challenge. Automated merchant boarding journeys using digital application processes has very quickly become mainstay, and an essential tool for payment providers to succeed in 2021 and beyond. This isn't just a nice-to -have – even the largest and most traditional payments businesses have had to behave more like FinTechs looking at their boarding journey, their approach to AML and their credit risk appetite to win and grow new business.

An enhancement to the proposition offered to merchants has also become necessary. Brick- and-mortar retailers have quickly established an online presence – or at the very least enhanced their presence to bridge the gap and shift in trade. In hospitality, there has been a huge switch from in-person dining and collections to a demand for delivery, and a focus from those merchants to combat the increasing fees of the delivery providers. Payments form an intrinsic part of this switch, so during 2021, suppliers have either had to lead from the front or risk churn to more equipped competitors.

Access to More Convenient, More Flexible Payment Methods and Opportunities

This improvement to access is much more than just card types or wallets – it's the way they are embedded within the product and, ultimately, the merchant experience. This significant shift in 2021 has given rise to growing levels of BNPL (buy now, pay later) transactions. Although we have yet to see any payments business make this model profitable, the demand is certainly increasing.

As consumer purchases continue to shift online, accelerated by the pandemic, we are seeing growing demand for convenience. Apple Pay is winning with iPhone users, as it turns browsers into customers within seconds – there is wallet growth with the other players, but ultimately speed and convenience win every time. There is much more focus this year on "global but local" services, amid companies that trade globally but accept payments in the most popular local payment methods across the countries where they do business.

In 2021, the payments businesses with basic card-only offerings started losing ground. 2021 is the start of the access "snowball" rolling down the hill – it will continue to gather momentum in 2022 as demand evolves, and it is important for the industry to stay on its toes and respond to and embrace the change.

ELENA
WHISLER
Senior Vice President, Client Relationship Management
The Clearing House

2021: THE YEAR OF **DELTA**

The word "delta" likely conjures thoughts of the COVID-19 virus variant that extended the pandemic almost into its second year. Scientists, mathematicians, engineers and economists, however, think of delta as "a difference or change." In the banking and payments worlds, the delta from 2019 to 2021 is large – and many of the changes that took place during the early months of the pandemic in 2020 became permanent in 2021.

The shift to digital payments accelerated in early 2020 as the world responded to the pandemic with lockdowns that forced customers to turn to online and mobile banking. Today, approaching two years later, businesses and consumers now expect enhanced, and often instant, digital banking and payment options. Moreover, customers found real-time payments to be more in line with the demands of everyday life and today's business needs. With a real-time payment over the RTP network, a customer receives a confirmation that the transaction is complete and the funds are available immediately. The expectation of instant gratification mirrors what other industries are experiencing as well, such as same-day shipping, instant curbside pickup, streaming entertainment and more.

As consumers continued to shift to digital payments this year, ACH transactions on TCH's EPN network have seen an 11% increase in 2021 volume. This delta, or change, seems to be permanent. Likewise, real-time payments volume on the RTP network increased dramatically in 2021, seeing over 15% compound growth each quarter. With the expectation of real-time payments becoming the norm and the continued rollout of request for payment and bill pay capabilities, we expect to see overall volume on the RTP network accelerate further, more than doubling by the end of 2022.

It's also no secret that consumers' P2P experiences through Zelle, Vemno, Cash App and others have increased the expectations for business payment capabilities. When executives could easily send a P2P payment to a family member in their personal life, they didn't understand why they couldn't do the same in the corporate world. This became painfully evident as the pandemic hit and many offices were closed. Treasury and accounts payable teams at the corporate level, as well as owners of small and medium-sized businesses (SMBs), struggled to make and receive payments with physical offices and businesses shuttered. For SMBs, real-time payments have helped to speed the shipment of goods from overstretched and often understocked suppliers. As supply chain problems extended to many other types of businesses in 2021, real-time payments have helped to ensure that shipments are sent to a business expediently.

As we turn the calendar to 2022, the change in electronic payments will likely accelerate, with customer expectations for real-time payments increasing and more financial institutions and more corporates adopting real-time payment methods. The delta we saw with electronic payments is now the norm, and we look forward to seeing how real-time payments will continue to make a positive difference in people's lives going forward.

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GABRIEL
CARVAJALINO
Vice President, Network Development LATAM
Thunes.

2021: THE YEAR OF **AMPLIACIÓN**

For me, the Spanish word for "enlargement" seems most appropriate to describe a year in which Thunes has made massive strides in growing our Latin American footprint. By extending our services and expanding our network to new markets, Thunes is making cross-border payments simple, fast, more transparent and cost-effective for customers and businesses sending and receiving money.

Home to over 600 million people, Latin America is a vast, untapped market with immense potential.

Many consumers in the region continue to prefer local payment methods when shopping online, making it essential for us to address these preferences. We recently launched partnerships with Bexs Banco, for example, to enable businesses and customers worldwide to make faster, cheaper cross-border transactions to Brazil.

Key drivers of increasing LATAM cross-border payments include:

Soaring B2B cross-border payments

Increasingly, businesses in Latin America are seeking more seamless, efficient and secure ways to make cross-border B2B transactions. Forecasts suggest that global cross-border transactions will grow to $156 trillion in 2022, with B2B payments accounting for $150 trillion. Latin America's share of these transactions is expected to increase significantly due to surging global trade in the region.

More cash sent home from overseas

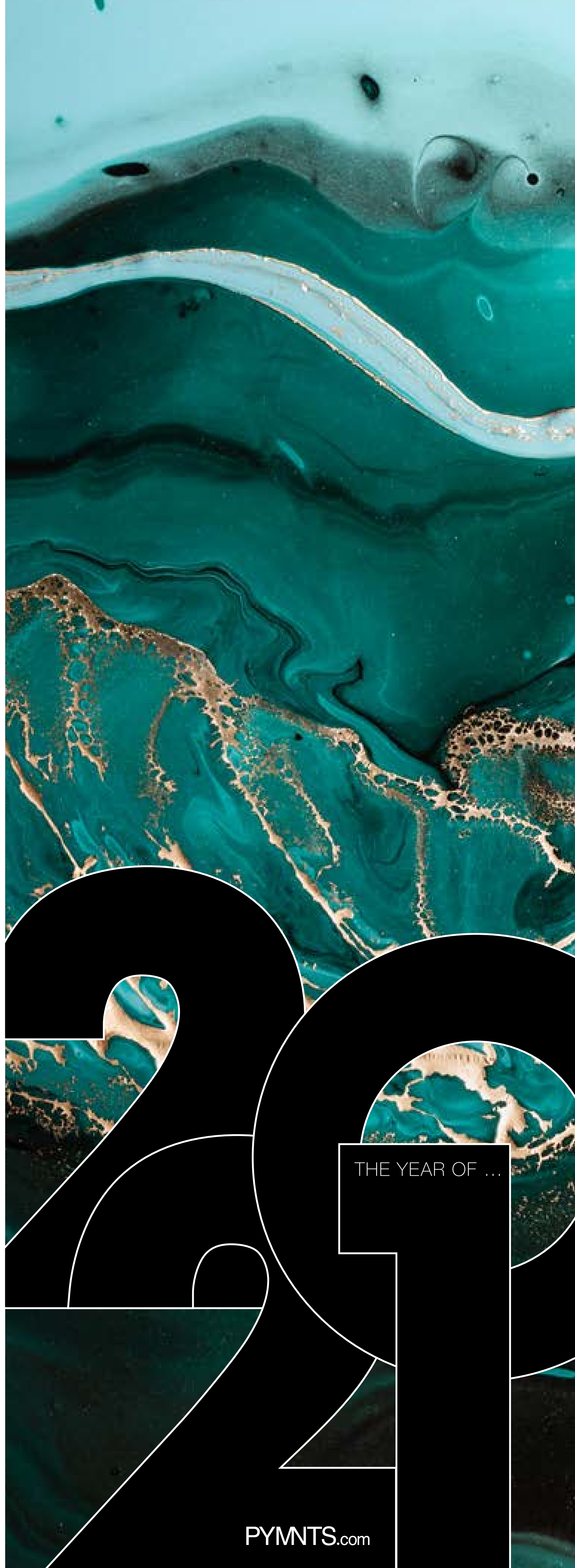
Each year, more money is sent to families and loved ones back home in Latin America from the United States and Europe. Despite the COVID-19 pandemic, The World Bank predicts that remittance flows into Latin America and the Caribbean will surge to a record $126 billion in 2021, registering a rise of 21.6% compared to 2020.

World's hottest eCommerce market

Online shopping is booming — Latin America is the world's fastest-growing regional eCommerce market with roughly 300 million digital buyers, a figure predicted to soar by over 20% by 2025. eCommerce in Latin America is projected to exceed $270 billion in 2021, and 14% of the region's eCommerce transactions will be cross-border.

Mobile payments gaining momentum

A shift to cashless transactions has gathered momentum in Latin America during the pandemic. Smartphones now act as banks for millions of people in the region who do not have access to a traditional bank account. The next four years will see around 100 million additional smartphone connections in Latin America, taking the total to 532 million by the end of 2025 – an adoption rate of 80%.



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2021: THE YEAR OF **FLOW**

The pandemic was a crash course in digital innovation for businesses all over the world, but especially those focused on B2B commerce. Suddenly, expectations and demand for seamless online experiences became critical, forcing businesses to "go with the flow" or be left behind.

Online marketplaces were already growing in popularity, but they quickly became a necessary and important part of driving commerce when COVID-19 hit. As the demand for eCommerce options continued to grow rapidly, so did the need for a seamless customer experience with frictionless transactions and payments. 2021 was all about serving the digital customer, with some B2B companies starting to dip their toes into this new eCommerce space.

Many B2B businesses — most of which were slow to digitally transform prior to the pandemic — found that eCommerce and online marketplaces offered a quick and easy way to procure their products or services. And B2B buyers, who continued working from home, flocked to these digital channels because they make it easy to find, compare and purchase items. B2B merchants and suppliers looked for ways to differentiate themselves from the competition, especially with the many uncertainties that remained. This will continue to be a trend in 2022 as businesses look for new and creative ways to win new customers, and to retain and strengthen customer relationships.

To keep loyal buyers coming back, it's important to consider what a consumer is looking for in a digital transaction: convenience. Lengthy billing processes with multiple steps are the top challenge with current payment systems.

It's also critical to offer multiple ways to pay, all with the ease of one-click purchasing. Our new study found that B2B merchants now offer 4.7 payment methods on average. Of these companies, over 50% currently offer traditional wire transfer, digital wallet payments, traditional credit cards and real-time payments.

Most business customers prefer to purchase as they do offline, via an invoice and with terms. In the shift to digital-first interactions, instant credit decisioning is critical to cart conversion and keeping the customer coming back. Additionally, these buyers will spend more, and more frequently, when they have a dedicated financial relationship and credit line with a business. The advantage over the competition is significant when customers know they can purchase frictionlessly when they're ready for more stock.

An ideal payment experience should flow into a natural extension of customer engagement versus a separate, tedious activity. Finding ways to facilitate frictionless payments and improve customer experience within marketplaces will continue to be the integral ingredient for B2B growth in the New Year.

ZAC
COHEN
Chief Operating Officer
Trulioo

2021: THE YEAR OF **VIGILANCE**

The word that stands out when reflecting on 2021 is vigilance. The last year saw a continued acceleration of people and businesses moving online. Shifts that were made initially to comply with public health orders soon became the preferred method of interaction for many consumers. Why spend an afternoon at the grocery store when delivery options are now readily available? These shifts have been meaningful – on average, consumers have started transacting with six new brands for the first time during the last year, according to Trulioo's 2021 fraud survey.

It is no surprise that with the increase in online activity, we've simultaneously seen an increase in cyber fraud. Many of the consumers who are new to online commerce are less savvy, often using weaker passwords and following fewer security steps – and are in turn more vulnerable to fraud. On top of this, poor or nonexistent identity checks in online retail or financial services can wreak havoc on people's lives.

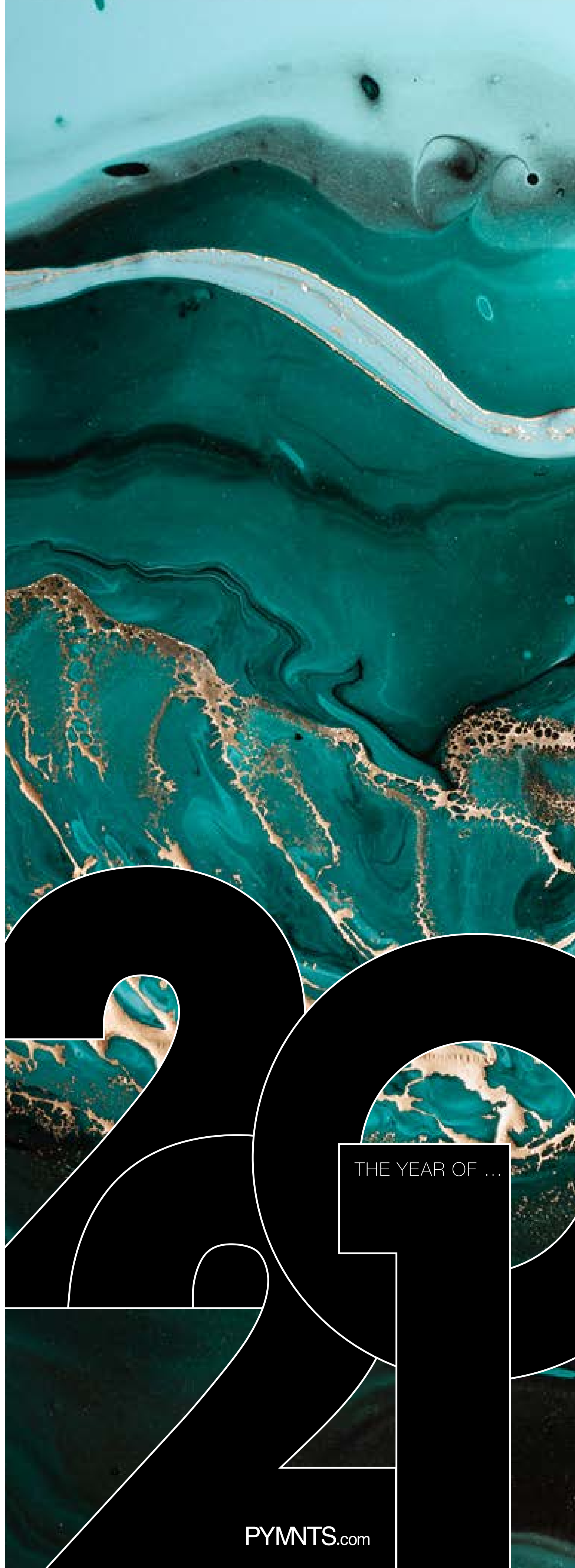
The surge in online activity has emboldened and inspired creativity among bad actors online. The current fraud climate has made clear that no matter the industry, implementing a strong identity verification program is imperative to establish the root of trust that's critical for our digital transactions. What's more, 80% of people state that online sites have a responsibility to help reduce cybercrime through effective identity verification methods. Being vigilant about identity verification is crucial in today's digital landscape. In order to foster trust online, individuals and businesses must prove that they are who they say they are.

Consumers have high expectations when it comes to their online safety. In fact, findings from a FICO report exploring COVID-induced digital transformation in financial services reveals that 62% of U.S. respondents expect to have to prove their identity when opening an account digitally, and 42% said they would expect the need to set up biometric identification.

Organizations should create seamless and secure onboarding experiences, taking into account that consumers want more choice and flexibility when opening new accounts, with people prioritizing security, data transparency and variety of authentication options. This will not only help keep fraudsters at bay, but will also be the basis for trusted customer relationships in the future.

In 2021, we saw rapid growth in demand for our identity verification solutions, both in emerging industries and in new markets around the world. Working with Fortune 500 companies and some of the world's top financial institutions, payments providers, online marketplaces, and eCommerce and financial services providers, we've seen firsthand that organizations are taking identity verification seriously, and are working hard to protect their users.

A strong identity verification program is a requirement for any organization striving to ensure that users can transact with peers or brands safely and securely online. It is more clear now than ever that identity verification is the foundation of financial integrity.



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2021: THE YEAR OF **VALUE**

In many facets, *value* was the word of 2021. There were skyrocketing values based on merit, hype and scarcity. Conversely, there were decreasing values given outlooks for the future and poor business fundamentals. None of it was without debate.

The word *value* at its core also sparks thoughts of fundamental economics, where theoretical enterprises manufacture and sell widgets in an ideal economy of rational actors. When force majeure-level shocks bash the economy, nothing functions ideally — and we're left with frantic market participants estimating their own level of regard or importance of a certain asset.

In many cases, people adopt the beliefs of value held by herds of others, devoid of their own nuanced analysis. So how did this manifest itself in 2021?

Many industries and companies attempted to emerge from the survival mode of 2020 and began to survey and analyze the landscape of the modified world around them. It is from here that the value of every individual concept or thing becomes a subjective analysis.

We saw the value of legacy companies reach wild peaks as individual investors banded together to create their own value by opposing the efforts of traditional financial incumbents who were betting on the value of distressed companies decreasing (AMC, GameStop, etc.).

We saw global brands shutter because they could no longer create value. Or shareholders did not believe there was sufficient value in continuing their business in its current form (Belk, Lorna Jane, Paper Source).

There were eye-popping special-purpose acquisition company (SPAC) vehicles sprouting up overnight to capture value usually left for the large banks (Paysafe, Payoneer, Circle). SPACs outlined another powerful path to public market liquidity when executed properly. Most commonly, SPAC asset purchases ascribed high values, while public markets debate true value on a day-to-day basis. (On the whole, IPOs have 50% better price increases than SPACs since 2018.)

Entrenched players invested to grow into new geographies or to add complementary services, because they saw the exponential value it could drive to their current business with the required investment cost being proportionally a great value to them (our company Usend, with Inter).

We saw decentralized autonomous organizations (DAOs) gathering rapid momentum and funds seeking to assert their value over the U.S. Constitution. At the same time, we saw the value of having knowledge and expertise in a field, as the DAOs somewhat telegraphed their intentions to the field and were outbid.

Going forward, we will continue to deal with aftershocks, shortages, inflation and other impacts. The ability to use logic and reason to rationally prescribe value is essential. It is a competitive advantage normally, but even more so in an uncertain time with a greater presence of irrational actors.

Either way, in a simplistic sense, the firms that create value for their customers and ecosystems will generally be rewarded with value of their own.

2021: THE YEAR OF REDEFINING

Ever since the introduction of the Fair Credit Billing Act in 1974, credit card dispute regulations have been set to prioritize consumer protection; however, the emergence of card-not-present transactions puts merchants at a major disadvantage when it comes to managing disputes. During the pandemic, the growth in disputes outpaced the growth of digital transactions with an increase of 24% from 2019 to 2021.[1] To maintain a healthy ecosystem, it's essential to retain the

[1] Visa internal reporting.

highest level of fair practice for all parties involved, so that in 2021, we continued innovating and redefining the dispute process to involve merchants as early as possible.

In a recent study conducted by the Merchant Risk Council, friendly fraud (first-party misuse) was the top fraud concern for merchants, with nearly 40% of respondents reporting that their company had experienced this type of fraud.[2] First-party misuse happens when consumers dispute legitimate charges — simply because they either don't recognize the charge, or they opportunistically realize they can get free services by disputing the charges months later. The presence of the transaction receipt through Order Insight gives transaction context to both the consumer and the issuer, which stops many disputes at the point of inquiry by redefining them as legitimate transactions and reducing confusion over whether the charges are fraudulent.

To help merchants manage legitimate disputes, we redefined the dispute process to include a "pre-dispute" phase, which gives merchants the opportunity to issue an automatic refund before an actual dispute takes hold with the use of our Rapid Dispute Resolution (RDR) solution. When consumers see improper charges on their billing statement, up to 76% bypass the merchant and file a dispute with the credit card issuer before ever reaching out to the merchant to give them a chance address the issue.[3] RDR puts merchants back in the driver's seat by allowing them to resolve and refund inquiries in seconds, rather than wade through the dispute process that can take weeks to resolve. The outcome benefits the whole ecosystem by lowering merchant and issuer operational expenses and giving customers the most expedient refund possible. In October 2021, we expanded our RDR solution globally. Now, merchants can resolve up to 71% of their Visa disputes automatically, avoiding downstream operational expenses and revenue loss.[4]

*Coverage is subject to change as Visa works to engage in RDR adoption directly with issuers to drive coverage and participation of RDR across all regions globally.

[2] Merchant Risk Council 2021 Global Fraud Report https://www.cybersource.com/content/dam/documents/campaign/global-fraud-report-2021.pdf

[3] Javelin, The Chargeback Triangle

[4] Visa internal reporting.

2021: THE YEAR OF **REFOCUSING**

As we look back on the events of 2021, we see that this was a transformative year for eCommerce and subscriptions. Successful subscription-based businesses refocused their efforts on the big picture, beyond the day-to-day business of subscriptions, transactions and payments. Subscription executives zoomed out and refocused to see things from a different, broader vantage point – seeing their customers as not just another line item on the balance sheet, but as the unique individuals they are.

Relying on data-driven subscription intelligence, the view has now evolved from a vertical perspective (customer in, customer out), to a horizontal and holistic approach – the complete customer journey and how every stage and subscription experience is organically connected. Savvy subscription providers have adapted through the peaks and valleys of 2021 as they continue to gain a deeper, more meaningful understanding of the entire customer journey.

The result? eCommerce providers are now better positioned to deliver frictionless, engaging and delightful subscription experiences that will continue to be relevant for consumers throughout 2022 and beyond.

Refocusing on the Entire Customer Journey

As the cost of living continue to rise across the board, consumers are seeking more value from their subscription services. As a result, every interaction needs to be engaging and reinforce the service's relevance to the customer.

Traditionally, subscription businesses have placed much emphasis on the A and the Z of the customer experience. That is, the beginning of the journey: how to acquire customers and get them on board. And the end: how to avoid customer cancellations – and if all else fails, help them make an elegant exit.

During 2021, however, successful subscription-based businesses increasingly relied on subscription intelligence to reach the next level, refocusing on everything that happens from the time a customer enrolls to the moment they stop being a customer. It's a horizontal perspective, covering all the crucial moments that make up each customer's individual journey.

Putting Yourself in the Customer's Shoes

Once you refocus your efforts and look at the holistic user journey from the perspective of the customer, something very important suddenly becomes clear: There is not one pain point that your subscription is going to solve, but many pain points that pop up for the customer in different ways along their journey.

The ongoing task for subscription executives in 2022 will be to build on the refocused successes of 2021, setting your sights beyond everyday delivery and digging deeper into the moments when consumers engage with your subscription and your company in a myriad of ways. Aim to make those moments smoother, friction-free, satisfying and delightful.

It's the difference between, "I'm hungry, let's eat!" and "I'm hungry, but what do I feel like eating? What hunger am I trying to fill? What is the one food that will satisfy me right now?"

That's the trend we all need to continue in 2022 and beyond – the holistic customer experience, made up of a magnitude of organic moments waiting to be satisfied.

2021: THE YEAR OF **EXPECTATIONS**

COVID-19 fundamentally changed retail, redefining the boundaries between online and in-store shopping. eCommerce retail sales surged for merchants of every size and across all categories, as consumers dove into online and mobile purchasing. The blurred boundaries between brick-and-mortar and online commerce increased the urgency of delivering seamless omnichannel experiences. Click-and-collect – whether buying online to pick up in-store, curbside or at a kiosk – is expected to grow at an annual rate of over 15% until 2024. Accepting digital payments — anywhere, anytime — became critical to meeting new consumer expectations that are here to stay.

Among the plot twists of the past two years, the supply chain constraints of 2021 compelled many shoppers to return to stores in order to be prepared for the holidays. And many of us rediscovered the joys of touching the merchandise and shopping as a social activity.

As these trends persist into 2022, delivering compelling digital experiences and recognizing consumers' desire to engage in person — whether in restaurants, stores or entertainment — will be critical. Digital and in-person are no longer two separate things to consumers and merchants. Payments in 2022 will be about both.

Delivering a Frictionless Customer Experience

It's no secret that the need for retailers to reduce friction throughout the customer experience is important. Shoppers have grown accustomed to being able to shop and make purchases on their own terms. Tools like installments — which provide consumers with more purchasing flexibility and click-and-collect options, giving shoppers the ability to shop online and pick up their purchases in-store — have emerged as crucial components of a frictionless shopping experience that can also drive loyalty and increase sales. Engaging in-store options run the gamut from loyalty programs at the countertop, to endless aisle experiences, to QR and self-checkout options.

Creating an Engaging Online Experience

With online and mobile shopping accelerating, retailers will need to make sure they're creating an experience that connects with shoppers in new ways, capturing their attention amid a flurry of new options. Tools like prompts regarding abandoned baskets and curated recommendations — both powered by artificial intelligence (AI), online and in-store visualization tools — and social commerce

all have the potential to engage customers in a compelling way. And while social commerce is still in its early stages, it is a growing and increasingly important channel for retail businesses. In the U.S., social commerce sales are on track to represent 4.3% of all retail commerce sales in 2021 and to reach $36 billion, growing 34.8%.

Meeting In-Store Expectations

Over the course of the pandemic, brick-and-mortar retail saw a 10% decrease in consumer preference. But it doesn't have to stay that way. Endless aisle experiences where the sales agent moves with the customer through the store are a win for both the consumer and the merchant — enabling better discovery of goods and increasing purchases. These models embed checkout in a multi-sensory shopping experience versus making checkout purely transactional. After months of hibernation, shoppers are eager for tactile experiences, special invitation-only events and to be part of a community — including early product releases and promotions enabled via heavily personalized digital tools.

In a year defined by expectations, recognizing that those expectations can change on a dime has become an essential skillset. Adaptability and meeting buyers where they want to be is key, and might be different one week — or one country — to the next.

The good news is that the accelerated adoption of new digital technologies has laid the groundwork for real life today and for the future of the industry. The constant is that consumers are seeking out choice — whether that is in-store, online or via digital shopping options — as part of their everyday routines. With a customer-first lens, the shaping of how buyers engage across all these highly dynamic environments and adjust quickly to them will be the difference between thriving or being left behind. Delighting these buyers will be crucial.

ABOUT

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