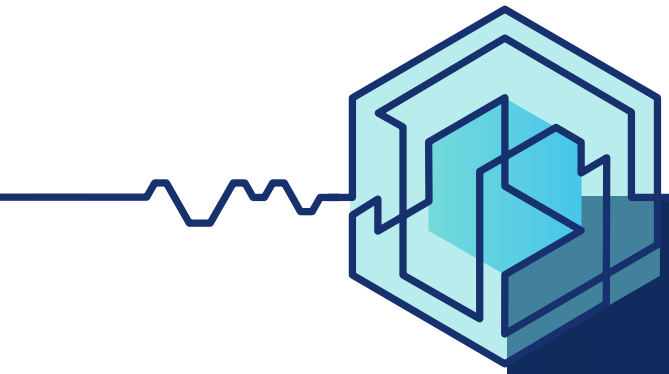
The state of innovation in Latin America:

Lessons from innovative companies across the region



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AMI Americas Market Intelligence

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About Visa's Innovation Centers and Studios

Advancing innovation in payments: Discover, Design, Develop.

Today, Visa has become the connective tissue to facilitate new payment and commerce experiences, and as an enabler of disruption, we have constantly innovated to meet market needs over the years.

Our approach to innovation is centered on a belief that paying with Visa in the digital world should be just as simple, or even simpler, than when you pay with Visa in the physical world. An important driver for us is the very large opportunity to accelerate the adoption of digital payments in the region, as $1.8 trillion[1] in cash and checks are still in use in Latin America and the Caribbean.

We believe collaboration is the key to innovation. By collaborating with a broad range of partners, including banks, merchants, governments and fintechs, we enable innovation to flourish so that ultimately, the consumers win with solutions that meet their needs.

This is precisely the goal of our network of Visa Innovation Centers and Studios around the world and in Latin America. These spaces provide creative environments using proven methodologies for clients and partners to rapidly co-create new products with us. Engagements span from defining critical problems to providing partners with prototypes that they can use to build the new generation of payments—all done using human-centered design so that the consumer stays at the center of everything.

Our Innovation Center in Miami and Studios in São Paulo and Mexico offer open and collaborative spaces where partners and clients are welcome to join us to discover, design and develop the future of commerce together.

[1] Source: Visa analysis of data from Oxford Economics, Nilson Report, Euromonitor, Haver Analytics

About AMI

Americas Market Intelligence (AMI) is the premier market intelligence firm for Latin America, providing powerful market and competitive intelligence-driven insights for companies to succeed in the region. Its industry expertise includes payments, healthcare, logistics, resources/infrastructure, insurance, consumer/retail and more. Its customized research reports deliver data-based clarity and granular strategic direction based on expert sourcing.

AMI's payments practice is focused on helping financial institutions, merchants and others navigate the unique payments landscape in Latin America and compete in a rapidly digitizing environment. AMI consultants are recognized thought leaders in verticals such as e-commerce, mobile payments, digital wallets, online banking, contactless payments and other digital payment technologies.

Executive summary

Key to the growth of the digital economy in Latin America is reaching the unbanked and broadening financial inclusion; this is happening today through innovation. Understanding what makes a company innovative in Latin America and what we can learn from them is instrumental to developing the digital economy overall. Identifying key indicators, trends, best practices and benchmarks of innovative companies in Latin America provides an important basis of knowledge that can be used to leverage these characteristics across the region.

With over half the population in Latin America owning smartphones, connectedness is already the norm. Consumers across the region are demanding speed, convenience and personalized services across every industry. What is clear is that innovation cannot wait.

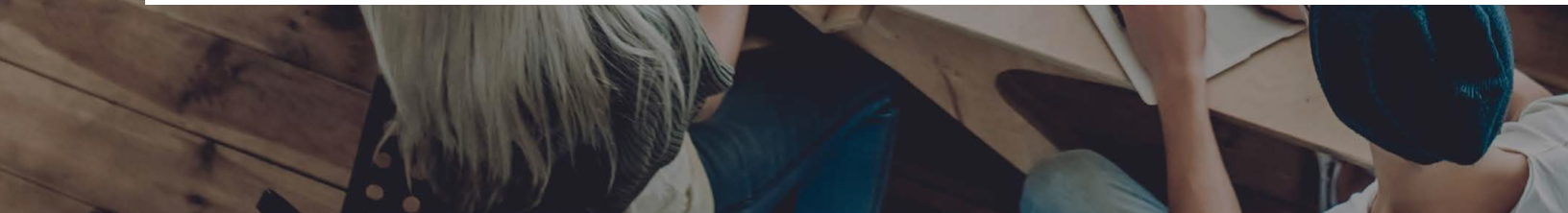
The *State of Innovation* report found that the most innovative companies in the region—whether they are financial institutions, fintechs, digital-native, marketplaces or brick-and-mortar—share several commonalities.

Artificial intelligence (AI), machine learning, biometrics and blockchain aren't just techy buzzwords. The research shows they are increasingly incorporated as everyday business tools at the most innovative companies in Latin America. Yet what makes a company innovative in the region is not just about shiny new technology and devices. It's also about business models, processes, agility, collaboration and a purposeful corporate culture that welcomes and commits to innovation and creative problem-solving.

Though homegrown Latin American firms face cutthroat competition from international disrupters like Uber, Amazon, Spotify and Netflix, local game-changers are emerging, representing both start-ups and innovative arms of traditional companies. These players have identified the inefficiencies generated by traditional models, homed in on market opportunities and created innovative ways of attacking underserved markets. Magazine Luiza, Banco Itaú, Bancolombia, MercadoPago, Rappi and Easy Taxi are just some of the few local innovators changing the shape of commerce and banking in Latin America. These players are user experience-focused, placing the consumer at the center of their business model, design and path to success.

In general, the region's leaders in innovation have explicitly embedded innovation into their corporate cultures—80% have a dedicated innovation team, most have structured their organizations horizontally to encourage internal collaboration and they also often have a dedicated innovation space or lab.

They highly value integration (with an average of over 140 APIs) and recognize that external collaboration and partnership with a wider ecosystem are necessary preconditions for true innovation, partnering on average with 15 start-ups. Their approach to partnership with start-ups vary depending on the type of company—for instance, financial institutions have more of an appetite for incubating, investing and even acquiring them in some cases, while merchants may leverage start-up expertise by hiring them.

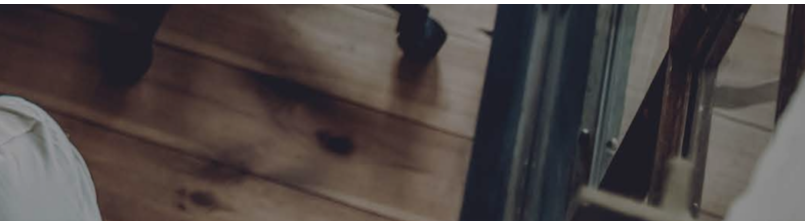


The most innovative companies are rapidly developing proofs of concept and launching them, and they are successful in scaling their solutions internationally—reaching, on average, more than five markets around the region.

The research brought to light the many opportunities available to Latin American issuers, acquirers and traditional retailers to innovate. The expansion of debit card portfolios plays an important role in innovation and e-commerce. Access to contactless payments for everyday purchases is key to reaching a population that is used to cash. Going mobile is important both for brick-and-mortar merchants' POS systems to enhance mobility and convenience, and for e-commerce growth through mobile apps.

Brick-and-mortar businesses aim to keep up with digital competitors. Through bold disruption of their existing distribution models, they are increasingly providing customers with new flexibility. Oxxo, a Mexican chain of convenience stores, has made itself a leader in the provision of consumer-level financial services. Order-ahead and in-store pickup is increasingly available and widespread. Banks are decentralizing their services by relying more and more on agent networks. In Latin America, where cash remains the payment method of choice and the fear of fraud is rampant, the most innovative companies understand the importance of omni-channel options and hybrid online/offline solutions.

Latin American companies are poised to create real change led by innovation that is already guiding the digital transformation of the region. The embrace of corporate cultures that allow for experimentation (and even for failure), cultures that promote collaboration and recognize the value of partnerships as an innovation strategy, is a trend that will only accelerate. In this report, we look at the key ingredients for success and the unique qualities of the region's leading innovators, and establish a benchmark that will help guide others toward creating their own groundbreaking cultures and capabilities.



Introduction

Innovation is top-of-mind for competitiveness in a global marketplace, and the past five years have seen a surge of innovation in every industry as technology changes how consumers operate, consume, interact and work. Consumers are growing increasingly tech-savvy, sophisticated and discerning as a result, expressing appetites for novelty and improvement that will not be easily satisfied.

This trend is present in Latin America: innovation is on the tip of everyone's tongue and fintech has taken the region by storm. Yet one third of Latin Americans still do not have access to the Internet, roughly half do not have access to banking and cash can represent nearly 90% of consumer payments in some markets and verticals.[2] Many traditional structures still have a strong grip on companies operating in local markets. Nevertheless, innovation is making its mark at the local, national and regional levels.

The research found in this report is based on in-depth interviews with 85 of Latin America's strongest companies, including financial institutions, merchants and new ecosystem players in six markets: Argentina, Brazil, Chile, Colombia, Mexico and Peru.

Analysis of a variety of factors–including internal support for innovation, execution, use of new technology, current footprint and ability to scale–yields data that provides insight into what it means to be innovative in Latin America and what differentiates the leaders of innovation. Trends and best practices are also defined in the findings, as well as an account of innovation by country. Finally, the report considers the likely impact of continuous innovation on Latin America and how technology–and its impact–will continue to evolve.

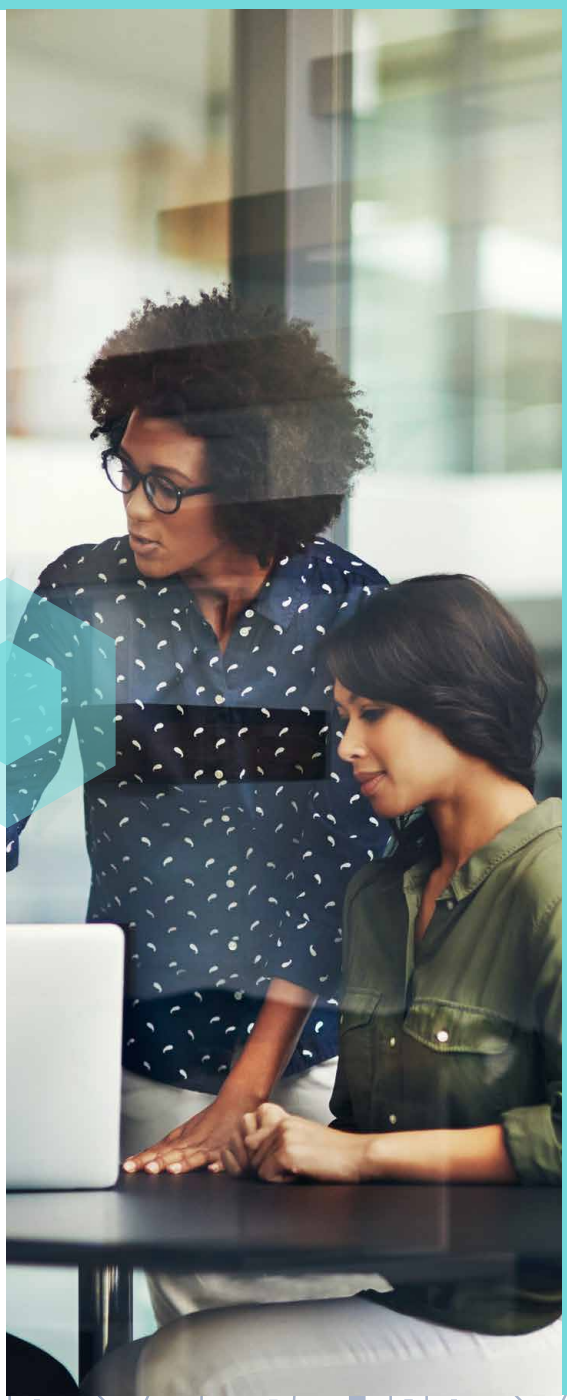
[2] World Bank Findex, local public domain sources, AMI analysis

OBJECTIVES OF THE STUDY

The primary objective of the study was to understand the degree of innovation in Latin America and what knowledge or lessons can be gleaned from the leaders of innovation. An additional objective was to provide a comparative innovation benchmark whereby Latin American companies in the region could gauge their own levels of innovation.

As a global payments technology company that relies on innovation as the strategy to provide superior consumer experience and support the digital transformation in Latin America, Visa seeks to learn from the frameworks and dynamics of these companies and share the findings openly in the hopes of fostering cross-learning that strengthens the innovation ecosystem regionwide.

Visa partnered with consulting firm Americas Market Intelligence (AMI) to develop a methodology to accomplish this.



Methodology and conceptual framework

SCOPE OF RESEARCH

Research for this report took place between May and September 2018, during which AMI interviewed companies in six major Latin American markets, across three verticals: financial institutions, merchants and new ecosystem players.

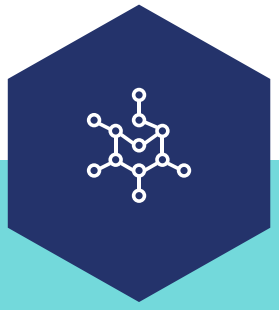
Research consisted of interviews with company executives from departments such as Innovation, Product, Digital Transformation and Growth, among others. In each interview, AMI collected information on roughly 100 different metrics, which were then used to analyze and rank participating companies.

FINANCIAL INSTITUTIONS

Issuers and acquirers

MERCHANTS

Brick-and-mortar, e-commerce and digital-only merchants



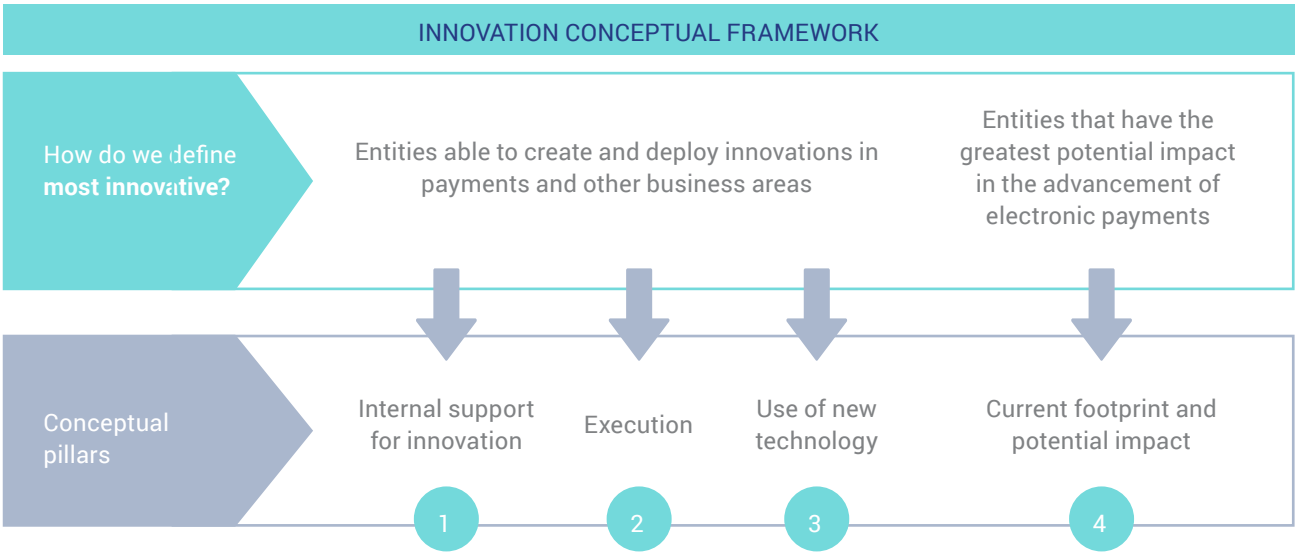
NEW ECOSYSTEM PLAYERS

Payment aggregators, and facilitators, including select start-ups

CONCEPTUAL FRAMEWORK

Visa is constantly aiming to advance electronic payments and commerce. For the purposes of this study, therefore, we define *the most innovative entities* as: 1) those able to create and deploy innovations in payments and other business areas; and 2) those with the greatest potential impact on the advancement of electronic payments.

This definition gives rise to four conceptual pillars which help define the metrics used to rank participating companies. The conceptual framework looks like this:



Within each pillar, AMI and Visa developed individual indicators that, taken together, tell a story about participating entities' innovative capabilities, including (but not limited to):

1. INTERNAL SUPPORT FOR INNOVATION

- How well does the internal structure of the entity promote innovation?
- What internal resources are available to support innovation?
- How integrated is the entity with partners and start-ups?

2. EXECUTION

- How active is the entity in ideating and prototyping?
- How effective is the entity at bringing new innovations to market?

3. USE OF NEW TECHNOLOGY

- How well has the entity embraced the most recent technologies in its industry?

4. CURRENT FOOTPRINT AND POTENTIAL IMPACT

- What reach does the entity have today, both digitally and in brick-and-mortar?
- What capacity does the entity have to influence the payments industry?

Once the data was collected from all participants, AMI applied a rigorous methodology to evaluate each company.[3] The entities were then ranked and analyzed to ascertain which primary characteristics were shared by the top performers. The results of this analysis are described in this report.

[3] See Appendix for detailed methodology.

A high-level glimpse:

The top innovators in Latin America[4]

9

FINANCIAL INSTITUTIONS

8

MERCHANTS

3

NEW ECOSYSTEM PLAYERS

[4] These numbers represent the top scoring 20 companies out the sample's total of 85.

The characteristics of Latin America's most innovative companies

The most innovative companies in Latin America are a diverse set. They include some of the region's top financial institutions, as well as leading digital merchants and marketplaces. Select brick-and-mortar merchants have also managed to rise above the competition—the two most highly rated entities are, in fact, brick-and-mortar merchants that have also cultivated a robust online presence. Brazil leads the field in innovation, with its local companies setting a shining example for experimentation and technology adoption. Mexico and Colombia follow close behind: innovation trends in these markets are more centered on business model innovation so as to better cater to a slightly more traditional customer base.

Throughout Latin America, clear and powerful trends are emerging. Among the survey sample, the region's leaders in innovation have explicitly embedded innovation into their corporate cultures—80% have a dedicated innovation team. They highly value integration, as demonstrated by the use of APIs; among the most innovative companies, the average number of APIs is 141, compared to 48 for the sample overall. Innovative companies also exhibit increasing collaboration with start-ups; on average, the region's most innovative companies have 15 partnerships with start-ups, compared to the overall average of 7.

Finally, innovative companies are moving toward a collaborative open-platform model that embraces cutting-edge technology, such as machine learning and artificial intelligence. This in turn increases personalization and improves the overall customer experience. Removing friction, creating seamless payment flows and becoming more human-centered rather than transactional is increasingly at the heart of everything they do.

In the sections that follow, we examine each of the four pillars of innovation: internal support for innovation, execution, use of technology, and current footprint/ability to scale. Throughout, we investigate the defining characteristics of the most innovative companies compared to the sample overall, as well as the similarities and differences between company verticals.

WHAT MAKES THEM INNOVATIVE?

80%
have a dedicated innovation team

Average of
141 APIs
45% are open

Average of
15
partnerships with start-ups

Average of
57
proofs of concept in the past three years

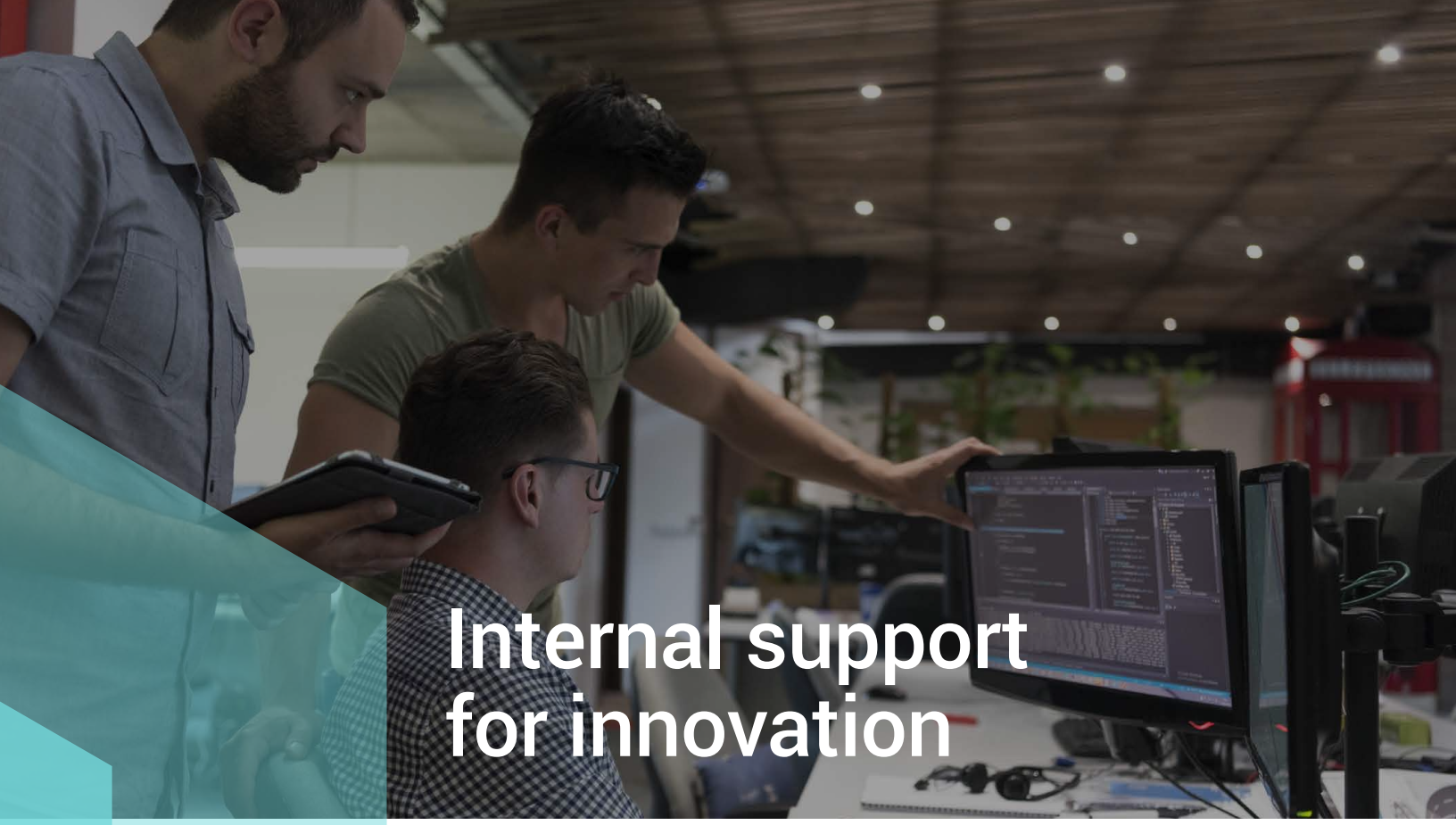
Deployment in
<5
months

Horizontally
structured and collaborative spaces

80%
use AI and/or machine learning

6 out of 8
merchants are marketplaces

Diversified
use of industry technologies



Internal support for innovation

Key indicators measuring *Internal support for innovation*

- Presence of an Innovation Department or a Chief Innovation Officer
- Number of employees in the innovation department
- Presence of an Innovation Lab or other dedicated space
- Number of developers on staff
- Number of available APIs
- Percentage of APIs that are open
- Percentage of APIs that were launched in the last year
- Number of partnerships with fintechs or other start-ups

A QUICK GLIMPSE

The results of our study show that companies across Latin America, including the most traditional ones, are weaving innovation into their corporate cultures. Prompted by pressure from disruptive start-ups, companies are modifying their paradigms to promote collaboration, creativity and experimentation.

As our survey results reveal, the extent to which a company fosters a collaborative and integrative culture necessarily determines the innovative image they present to the market. Explicitly embracing innovation has therefore become the industry standard.

Those firms with the strongest commitment to innovation are effectively transforming their entire corporate mindset. As a leading Brazilian cosmetics retailer explains.

> "Our innovation lab is much more than an incubator or accelerator. It goes beyond the physical space—it was created to change our mindset from a manufacturing mindset to that of an agile start-up." —A leading Brazilian cosmetics retailer

Company verticals and markets vary substantially, of course. Analysis suggests that digital-native marketplaces rank highest for internal culture of innovation, followed by financial institutions. Those companies that rank nearest the bottom are traditional brick-and-mortar merchants that have had difficulty disrupting their legacy processes.

The following describes the key indicators that define internal support for innovation within the companies in our survey. The most innovative companies have embraced several best practices:

- Creating explicit teams and physical spaces to promote innovation
- Infusing innovation into business culture through horizontal corporate structures
- Embracing the use of APIs; and 4) working intensively with start-ups

APPROACH TO EMBRACING INNOVATION

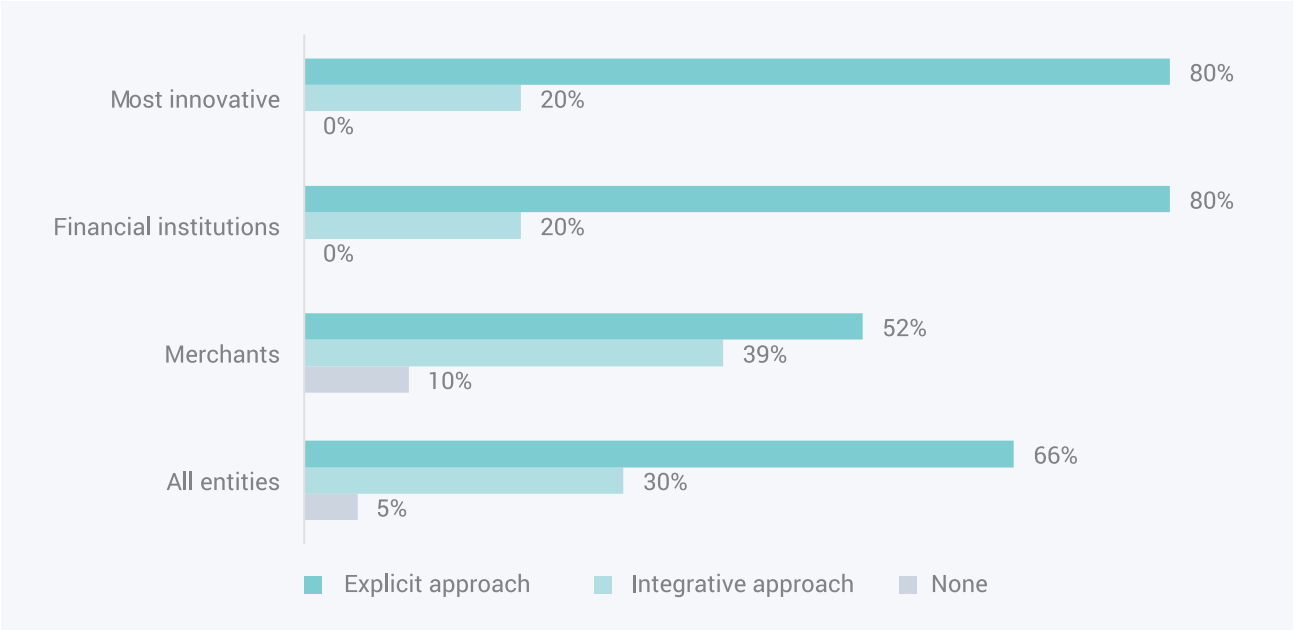
Organizational transformations must begin with an internal structure and cultural framework that supports innovation, as well as earmarking resources for the support of ideation and prototyping. And survey results reveal that companies in Latin America are eager to get started; a full 95% of financial institutions and merchants surveyed have built the preconditions for innovation into their corporate structures. However, upon closer inspection, the degree to which innovation is embraced varies.

Two distinct models emerge from the data. The first is an *explicit* model, in which organizations establish a formalized innovation department headed by a chief innovation officer or similar role, as well as dedicated spaces for innovation in the form of a lab or other infrastructure. Among our sample's most innovative firms, four in five have taken this approach. First-in-class examples include Banco do Brasil's Lab, which boasts locations in both Brasilia and Silicon Valley, enabling a collaborative environment across the organization, as well as access to leading-edge technology.

Among financial institutions, there is a strong trend toward the explicit model—most already have dedicated innovation labs and/or teams. These groups support experimentation with new payment methods, biometrics, blockchain, partnerships with start-ups and more. However, the downside to the explicit approach is that it can result in a vacuum that isolates advancements to a single department. If not managed properly, improvements remain effectively quarantined, with little effect on the rest of the organization.

The second approach is typified by an *integrative* model: innovation is not siphoned into a particular department, but rather incorporated into key business areas like product, growth, technology, IT and digital transformation. Innovation is written into the job

FIGURE 1. INNOVATION MODELS ADOPTED BY SURVEY RESPONDENTS, % OF ENTITIES



description of many employees as a core function. Instead of an Innovation Lab, companies adopting the integrative approach have created open floor plans and common spaces to encourage and facilitate collaboration across departments.

> "All of our offices are meant to facilitate innovation. They are open spaces designed to be shared, equipped with all of our available technology. We aim to create a spirit of collaboration." –Leading digital merchant

Merchants have been slightly slower overall to incorporate innovation, held back by traditional brick-and-mortar retailers who are reluctant to digitize the processes that have proven reliable in the past. Among digital-native merchants, however, the integrative approach to innovation prevails—teams are horizontally rather than vertically structured. Cross-team collaboration and ideation are nurtured. Under this model, innovation has greater potential to become deeply embedded into the culture and the everyday processes of the company.

At first glance, these numbers appear to tell a story about surging innovation in Latin America. But it is important to note that, among survey respondents, only 3% of operational employees are dedicated to innovation, and this number rarely exceeds 5%, even among the top-scoring entities. There are exceptions, however: digital-native companies and start-ups that "carry innovation in their DNA" have integrated innovation into their cultures from their outset. In such cases, 80% to 100% of employees are actively involved in collaborative innovation. Rappi, Cabify and MercadoPago are all prime examples of this pioneering ethos.

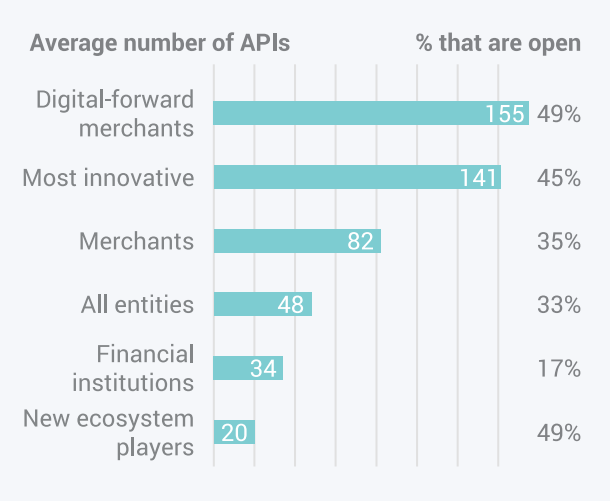
COLLABORATION WITH THE WIDER ECOSYSTEM

The data reveal that collaboration and partnership are necessary preconditions for true innovation. Data sharing via APIs and integration among partners and clients support inventive product development and foster transparency. Partnerships with start-ups, collaborations with universities and the incubation and acceleration of entrepreneurs all help companies leverage expertise outside of their core capabilities.

A large number of APIs is highly correlated with strong innovation. Tellingly, AMI's survey results reveal that the most innovative have, on average, a staggering 141 APIs, 45% of which are open APIs. The regional average trails far behind at just 48 APIs, 33% of which are open. While financial institutions tend to score well on other metrics measuring internal support for innovation, they are reluctant to open their data to third parties, and are especially recalcitrant to moving toward an open-banking environment.

At the other end of this spectrum are digital-forward[5] merchants. This particularly includes marketplaces that depend on APIs to integrate seamlessly with sellers utilizing their platforms, payment methods and logistics technology providers. In our sample, e-commerce merchants with a start-up mindset nearly always adopt an API-based approach.

FIGURE 2. USE OF APIs



[5] Defined as merchants for which e-commerce makes up a majority portion of their sales, even though they may also have a brick-and-mortar presence.

Just as central to successful innovation is the degree to which companies collaborate with start-ups and other industry players. Unlike APIs, financial institutions excel in this area, with an average of nine partnerships with fintech start-ups per entity. Merchants lag behind with an average of five, while the survey's most innovative boast a healthy average of 15.

FIGURE 3. START-UP PARTNERSHIPS BY ENTITY TYPE

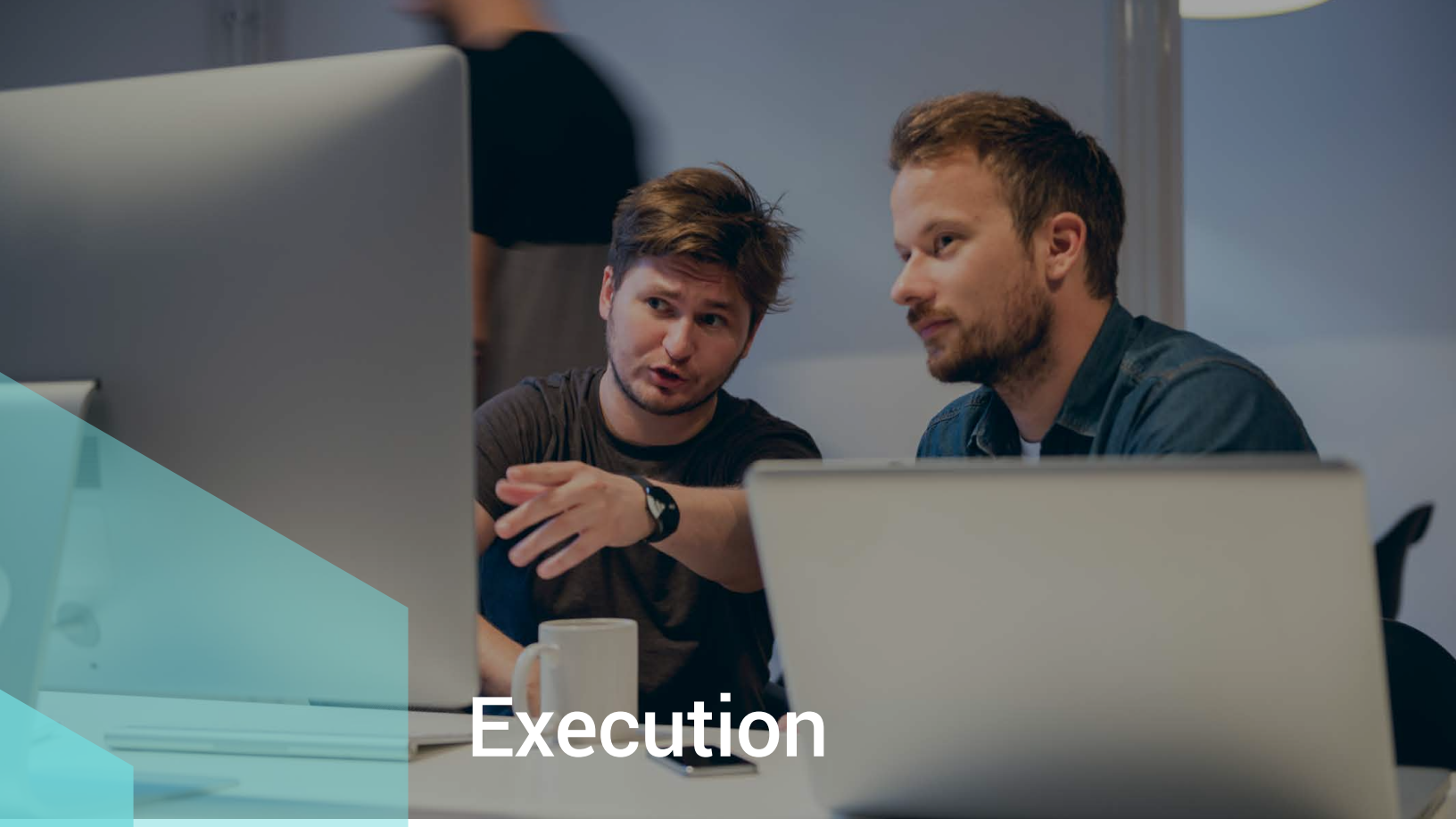
Entity type	Average number of partnerships with start-ups
Most innovative	15
Financial institutions	9
Merchants	5

The top surveyed financial institutions have systems in place to connect with startups, entrepreneurs and universities. By sponsoring hackathons and boot camps and joining fintech communities (first-in-class examples include BBVA Bancomer in Mexico and Banco do Brasil), financial institutions often find unique solutions to improve their internal processes and deliver better products and services. Among the most common start-up-based solutions are alternative credit score solutions, technologies for payment processing, fraud detection and AI and machine learning. Among acquirers, such as VisaNet (Peru), partnerships with new ventures to promote card acceptance among longtail merchants is common practice.

Due to their hands-on approach to partnership, financial institutions frequently incubate start-ups, invest in them or even acquire them outright. Merchants, by contrast, more often simply hire the services of a start-up rather than investing directly. Their aim is to leverage a start-up's services in order to improve operational efficiency, eliminate a pain point or enhance the customer experience overall. In addition to fraud detection and artificial intelligence, partnerships between merchants and start-ups tend to focus largely on logistics and fulfillment.

"We value our partnerships with start-ups because they help us deliver new products to our customers. They also provide us with services that improve our internal operations." —Chilean financial institution

Developing internal support for innovation is the first step in becoming an innovative entity and departing from the status quo. Dedicating resources to experimentation in the form of budget, staff and infrastructure, enabling mechanisms for integration with partners via APIs and depending upon the expertise of disruptive start-ups are all necessary building blocks for an innovative company. These components enable companies to not only deliver new innovations to the marketplace, but also to react much more quickly to changing industry dynamics. Several Latin American companies have taken these first steps and have pulled ahead of competitors as a result.



Execution

Key indicators measuring *Execution*

- Number of proofs of concept developed in the past three years
- Percentage of proofs of concept that are successfully launched
- Time to market from ideation to deployment

A QUICK GLIMPSE

In addition to an innovative culture, leading-edge companies have a proven track record of successful execution, demonstrating their ingenuity through rapid development and deployment of new features, products and services. Our most innovative companies serve as decisive evidence of the truth of this hypothesis, outperforming the field in proof of concept development, launch and speed of deployment.

PROOF OF CONCEPT DEVELOPMENT AND DEPLOYMENT

Survey results tell a compelling story. In the past three years, the most innovative entities in our study developed nearly three times the number of payments-related proofs of concept (POCs) compared to the regional average. Among the most innovative, an average of 65% of these went live, compared to 55% of the average overall. And the time-to-market was also speedier—an average of 4.9 months compared to the regional average of 6.5. Among the quickest of executors is Rappi, which reports that proofs of concept are launched on a monthly basis; recent launches include Rappi Prime, RappiPay (a co-branded Visa credit card), QR codes and the nonstop onboarding of partner merchants.

FIGURE 4: ENTITIES' PERFORMANCE IN EXECUTION

	Payments-related POCs developed in past three years	% that went live	Average months to market
Most innovative	67	65%	4.9
Digital natives[6]	47	62%	4.8
Regional average	20	55%	6.5
Financial institutions	17	51%	8
Merchants	20	60%	6
New ecosystem players	22	56%	5

Of entity types: Leaders overall | Most active | Most effective | Most agile

The data reveals that new ecosystem players—mostly start-ups—have the best record of execution among the three verticals. Cross-border payment processor dLocal is a prime example, launching more than 100 new features and capabilities in the past three years, including connections to local acquirers and payment methods, dynamic transaction routing, the generation of mobile *boletos bancários*,[7] advanced checkout features and payouts. With small teams and large ambitions, start-ups like dLocal are both the most active in terms of proof of concept production and the quickest in bringing POCs to market.

Along with Banco Itaú, other financial institutions that perform well in execution include Banco Neon (Brazil), Banregio (Mexico) and Bancolombia (Colombia). Among acquirers, Credibanco (Colombia) and VisaNet (Peru) lead in execution. In general, however, financial institutions on the whole are behind both merchants and start-ups. With legacy systems in place, keeping pace with the speed of execution of start-ups can be challenging for them.

Compared to the regional average, the most innovative entities in our study developed nearly 3 times the number of payments-related proofs of concept. They had 10% more POCs go live and developed them faster: in 4.9 months vs. 6.5.

This fact appears to clash with the excellence demonstrated by financial institutions in terms of *internal support for* innovation, an area in which issuers and acquirers lead the region. However, this apparent contradiction underscores an important reality: while opening an innovation lab and hiring a dedicated team are necessary preconditions, genuine innovation cannot take place in a vacuum. Aggressive execution is just as essential as careful planning. Overall, digital native companies outperform the rest of the companies in this category.

[6] Defined as companies that were "born digital," meaning, they went to market with a digital-only model, with no brick-and-mortar presence.

[7] A popular payment method in Brazil, the *boleto bancário* is an electronic invoice payable online or in cash at bank branches and affiliated agents like supermarkets.

Use of new technology

Key indicators measuring *Use of new technology*

1. Use of leading industry technologies, including (but not limited to):

- Data analytics
- Artificial intelligence
- Machine learning
- Chatbots
- Blockchain
- Biometrics
- Digital wallets
- QR codes
- Tokenization
- Card-on-file
- Contactless/NFC
- IoT
- Omni-channel capabilities

2. Penetration of e-commerce and mobile commerce

A QUICK GLIMPSE

The third component of innovation is the use of technology. To this end, we set out to discover how well and to what extent Latin America's companies have implemented the most cutting-edge technologies in their industries: artificial intelligence, machine learning, blockchain, chatbots, digital wallets, biometrics and tokenization, to name only a handful.

Adoption levels vary. While four in five of the survey's most innovative already use AI and machine learning, only slightly more than half (53%) of all survey respondents do so. Digital-forward merchants—such as Despegar.com, Cabify, Viajes Éxito, and Netshoes—make, on average, 80% of their sales online, but this figure plummets to 7% for brick-and-mortar merchants[8]. And while an average of 26% of e-commerce merchants' sales are made over a mobile device, 32% of merchants surveyed still do not have a mobile app.

Most companies share the same goal for their adoption of new technology. Companies are becoming more customer-centric and technology is being leveraged with the end consumer in mind. They aim to reduce friction in the purchase process and provide a more intuitive online user experience, to offer increased personalization, to maximize flexibility and consumer choice, as well as to craft memorable experiences that delight and inspire. The companies that perform best in these areas are also the most likely to increase customer loyalty and undercut the competition.

The following section will review how some of the most innovative companies in the region are incorporating technology to transform their customer experience.

[8] This number includes brick-and-mortar merchants who sell online only; it excludes purely brick-and-mortar merchants with no online sales.

FINANCIAL INSTITUTIONS

Survey results reveal that at the highest level, financial institutions' adoption of new technologies is largely experimental. While they lead the region in usage of data analytics, artificial intelligence, machine learning, chatbots and blockchain, most are in exploratory phases. At the same time, banks have access to massive amounts of valuable consumer data that they want to leverage. Thus, many financial institutions are at the beginning stages of capturing, segmenting and analyzing this data to unleash its enormous potential.

Artificial intelligence (AI) and machine learning

50% of participating financial institutions utilize AI and machine learning.

Although AI remains a very young technology, top financial institutions are actively exploring its capabilities. Use cases include monitoring branches for safety purposes by capturing customers' movement and detecting erratic behavior. It is employed in call centers and in chatbots to improve customer service. Banks are also exploring AI's ability to be used for margin and capital allocation calculation within banks' investment arms.

Machine learning is in an even more experimental phase. Many banks in Latin America struggle to improve their user experience and are product-focused rather than customer-focused. This becomes a problem when digital competitors lure customers away with excellent user interfaces, especially via mobile. Much of machine learning is being piloted, therefore, to better understand and interact with bank customers. In addition, the technology is used to manage CRM platforms and reduce fraud.

Blockchain

13% of financial institutions use blockchain.

Blockchain is in extremely early phases and only utilized by 8% of surveyed companies. Those firms that do use it are located almost exclusively in Brazil, and financial institutions lead the field in this respect. The uses of blockchain vary widely, ranging from international money transfers and cybersecurity projects to smart contracts and growing marketplace capabilities for e-commerce platforms. Most Latin American firms do not understand blockchain or how it can benefit their businesses—only those that are willing to invest resources in learning and experimentation are taking the plunge.

Digital wallets

17% of issuers have created their own digital wallet.

Many issuers are experimenting with digital wallets. Some have created their own, nearly all of which are closed-loop, available only to each bank's cardholders. Such products enable mobile payments via NFC, QR code or passcode, facilitate e-commerce payments and/or enable customers to cancel or deactivate credit and debit cards. A higher percentage (22%) have integrated with a third-party wallet, most often Samsung Pay in Brazil and Mexico. Because these products are new—most were launched in the last two years—consumer uptake levels are still low. For their part, banks are studying the value proposition of digital wallets, as well as their potential use cases. Taken as a whole, surveyed issuers in Latin America are only in the beginning stages of enabling mobile payments.

Biometrics

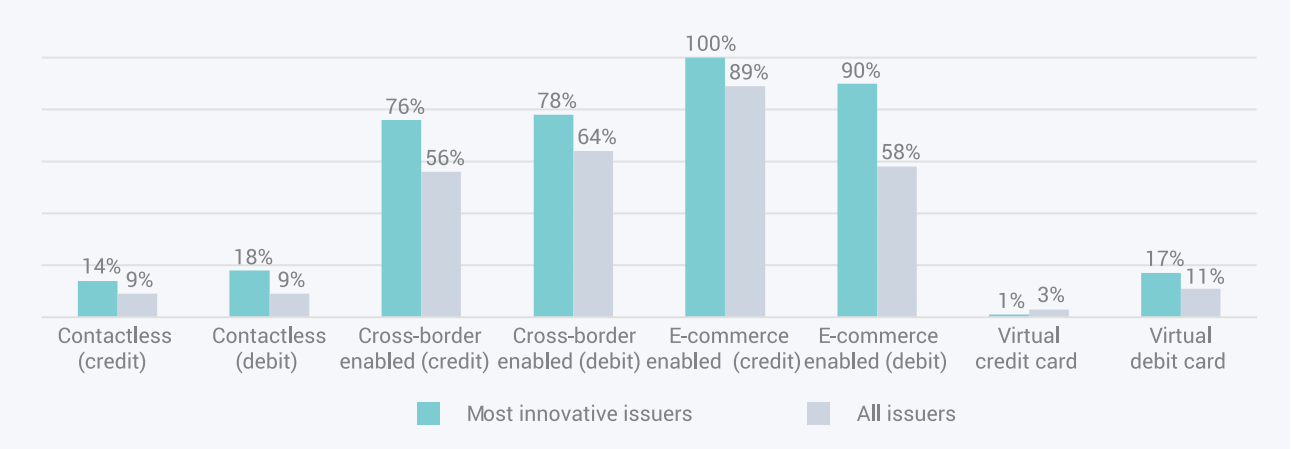
39% of issuers utilize biometrics.

The clear use case for biometrics among banks is at ATMs, where fingerprint is used to authenticate user identity. Surveyed Brazilian banks are ahead in this respect; Banco do Brasil has had fingerprint reading enabled at its ATMs since 2013. The most innovative issuers are compiling user databases for facial recognition, effectively "teaching" their artificial intelligence platforms to read faces. Others, like Brazil's Banco Bradesco, have implemented palm vein authentication to access ATMs without resorting to a PIN.

Card portfolios

Card issuers have made significant progress in updating their card portfolio technology. A key indicator of innovation is the degree to which issuers are improving their debit card portfolios; usage for e-commerce and cross-border transactions is often restricted due to fraud concerns. Because debit cards are more accessible than credit cards, improving debit card portfolios increases access to electronic payments among the wider population.

FIGURE 5: INNOVATION IN ISSUERS' CARD PORTFOLIOS | AVERAGE % OF CARD PORTFOLIO



The most innovative card issuers in our survey enable an average of 90% of their debit portfolios for e-commerce, compared to 58% overall. Many issuers fear the prospect of widespread debit card fraud, since funds accessed through debit cards represent the cardholder's actual balance (as opposed to credit cards, which represent borrowed funds). Traditional banks are therefore averse to equipping debit cards with a CVV code to enable e-commerce. As such, in most LatAm markets (except Mexico) debit cards trail far behind credit cards in e-commerce volume.

This trend is significant. After all, *e-commerce* does not refer only to traditional online retail. The term casts a wide net that includes innovative services like Uber and Netflix, as well as other in-app/subscription purchases, many of which are card-on-file platforms. Issuers that enable their debit cardholders to access such platforms have the best chance of becoming top-of-wallet for purchases at these types of merchants—and since they are card-on-file, their position becomes difficult to usurp by other cards. As the app economy grows in Latin America, issuers that allow debit card holders to participate in the online economy have a distinct advantage over the competition.

Similarly, innovative issuers are migrating their (debit and credit) card portfolios to contactless cards. Contactless, which is best applied to low-ticket, everyday transactions, is a great fit for debit cards; in Latin America, credit cards are most often reserved for high-ticket purchases that require financing, whereas debit is used for inexpensive, everyday purchases. Thus, issuers who prioritize debit cards for contactless migration have the best shot at achieving high usage of this technology among their cardholders. Once again, innovative issuers have their sights on promoting electronic payments among a population that is used to cash.

Acquirers

Among the acquirers in the study, one-third of all card volume is represented by card-not-present transactions. This has been achieved through improvements of the e-commerce experience: 100% of participants enable recurring payments and 71% offer one-click checkout. Acquirers are continuously improving the e-commerce channel by investing in better anti-fraud tools and integrating with e-commerce digital wallets.

In addition, acquirers are integrating with merchant aggregators to expand card acceptance in the physical world, and the mobile POS market is flourishing as a result. Aggregators like PayClip and Bill Pocket in Mexico, PagSeguro in Brazil and VendeMás in Peru are just a few of the companies that acquirers have partnered with so they can serve longtail merchants. In a similar vein, acquirers are upgrading their traditional POS parks to the most recent technology for card-present transactions: contactless. Today, of the innovative acquirers included this study, 68% of their POS terminals are contactless-enabled.

Despite these efforts, there is still tremendous work to be done; today, among survey respondents, active mPOS devices make up 6% of the total POS park and only 4% of volume, and contactless cards make up only 5% of card-present purchase volume. As investment in (and awareness of) these technologies grow, their usage and volume penetration will also grow.

MERCHANTS

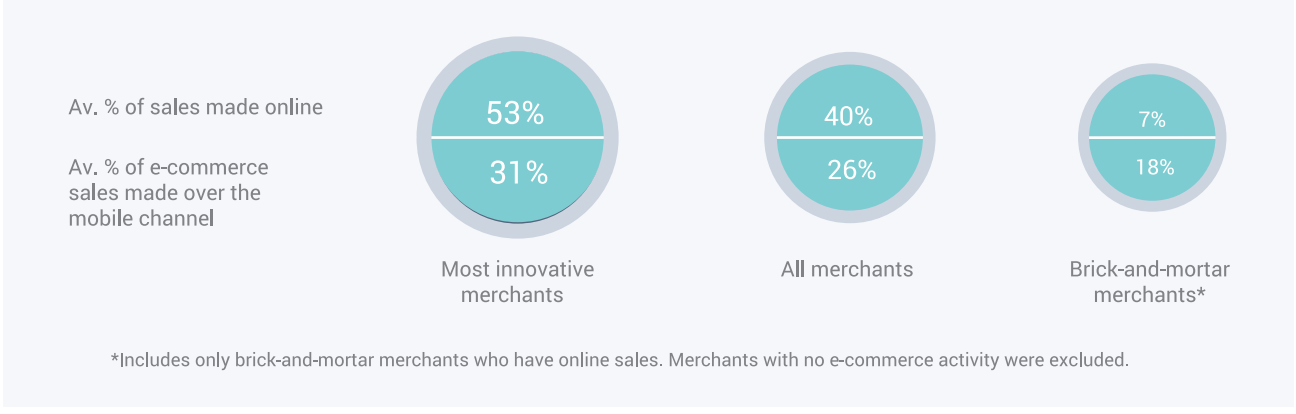
Merchants' technology adoption is more varied than their financial institution counterparts. Many supermarkets and big box stores are in an early stage of digitization—41% of the participating brick-and-mortar retailers do not have a mobile app and many do not sell online. Of 17 brick-and-mortar retailers studied, only 7% of their total sales are made online, compared to 40% of all merchants in the sample and over half (53%) of the most innovative merchants. The threat of e-commerce has become real for supermarkets only in the last year. Now these native brick-and-mortar establishments, dependent for decades on manual processes, are in a mad rush to make up for lost time in an increasingly digital environment.

At the other end of this spectrum are digital-native merchants, including Despegar.com, Easy Taxi, Rappi, Amazon and Netshoes. The survey results reveal that these firms are ahead of their traditional competitors in technology adoption, investing major resources into machine learning and AI to improve their online experiences, reduce fraud, optimize fulfillment, and drive better customer engagement. Airlines are even leveraging data analytics to optimize fuel usage on airplanes.

Digital natives' loyalty programs are evolving just as fast. Rather than traditional purchase-for-points schemes, merchants are trending toward a subscription or membership model reminiscent of Amazon Prime. Such models both drive loyalty and lay the groundwork for expansion into other verticals. Rappi's Prime membership gives users access to unlimited free deliveries for a low monthly fee. It also primes users to adopt the company's newly launched RappiPay, a digital wallet enabling P2P payments and merchant payments via QR code.

The most innovative brick-and-mortar merchants are reinventing themselves in myriad ways, often centered on providing memorable in-store experiences. Magazine Luiza, a leading Brazilian marketplace and retailer, has eliminated long lines at their stores by issuing all sales clerks wireless POS terminals that allow for checkout anywhere on the floor. Ponto Frio's concept store uses 4D technology that enables a multi-sense experience that extends beyond the ordinary through techniques such as emitting the scent of clean laundry into the home appliances section. OfficeMax is exploring the idea of incorporating co-working spaces into its stores. Several merchants in the region are developing scan-and-go technology, enabling customers to check themselves out using a mobile device, avoiding lines entirely. At the highest level, merchants aim to remove friction at the POS, provide flexibility through omni-channel enablement and offer customer experiences that are emotionally satisfying rather than nakedly transactional.

FIGURE 6: USE OF E-COMMERCE BY MERCHANTS



*Includes only brick-and-mortar merchants who have online sales. Merchants with no e-commerce activity were excluded.

Regarding specific technologies, additional trends can be observed:

Omni-channel

76% of surveyed merchants with a brick-and-mortar presence enable omni-channel fulfillment

Many leading Latin American merchants are focused on implementing omni-channel solutions, enabling customers to purchase, pay, and pick up purchases using any channel and any payment method. A prime example of this phenomenon is Via Varejo (Ponto Frio) in Brazil, which has created pick-up points for online purchases with QR code-enabled lockers, found at gas stations, Ponto Frio stores and post offices. Merchants are developing their AI and machine learning capabilities to better manage these systems and the inventory challenges that accompany them.

Even brick-and-mortar merchants with no e-commerce presence are seeking ways to participate in multi-channel sales. Oxxo in Mexico accepts cash-based e-commerce purchases in Oxxo stores—as well as e-commerce delivery and pick up—successfully inserting itself into the e-commerce value chain. Others are integrating with on-demand delivery apps like Rappi and Glovo, a savvy move that allows more traditional retailers to have an online presence without making heavy infrastructure investments.

Digital wallets

35% accept digital wallets for in-store payment
43% accept digital wallets for e-commerce

Most surveyed merchants would like to be considered innovative and cutting-edge by consumers. It is therefore no surprise that acceptance of mobile payments using a digital wallet for in-store purchases is on the rise throughout Latin America, including for products like Samsung Pay, Apple Pay or BBVA Wallet.

Where digital wallets are most needed in e-commerce and m-commerce, however, is to obviate the tedium of entering payment credentials on a responsive website or mobile app. For this reason alone, MercadoPago, PayPal and other card-on-file wallets have carved out a sizeable share of the region's e-commerce.

The most advanced merchants in the region are creating their own wallet products rather than relying on a third party. Such products can dramatically enhance customer convenience—such is the case of RappiPay, where card credentials are automatically saved in the app for anytime use. Others expand access to electronic payments for the underbanked. The prime example of this is Amazon Cash, a digital wallet that enables customers to top up their Amazon accounts with cash at affiliated retailers for use on Amazon.com in Mexico.

Marketplace capabilities

One of the more salient trends among merchants in Latin America is the rapid evolution toward a marketplace model. MercadoLibre and Despegar.com were the first marketplaces to sweep Latin America—and in line with global trends, this momentum has only accelerated in the past five years. From the rise of powerful Brazilian retail marketplaces like Netshoes, to the arrival of Internet giants Uber, Airbnb and Amazon to the region, to the emergence of local gig-economy apps, marketplaces are aggressively challenging the tenets of Latin American commerce. Fully 95% of survey respondents reported either having a marketplace model or to be developing marketplace capabilities. The pattern is clear: not only are marketplace-model companies encroaching on Latin American commerce, traditional retailers are also moving—however reluctantly—in the same direction.

In 2017 Walmart began equipping third-party sellers for e-commerce in Mexico in an effort to compete with Amazon. In 2018, to bolster its grocery business, it acquired Chile-based grocery delivery app Cornershop. The same year, leading Chilean department store Falabella acquired online marketplace Linio. And many other brick-and-mortar merchants are following in these leaders' footsteps: 35% of merchants surveyed are pure marketplaces, 29% are partial marketplaces, having dedicated a portion of their websites to third-party sellers, and an additional 26% are developing marketplace capabilities.

The marketplace model is innovative because it is inherently technology-based, enabling companies to reap the benefits of commerce without doing any of the heavy lifting, like owning merchandise. While Amazon

owns logistics-related physical assets, for example, other marketplaces like Uber forgo that necessity—they provide a platform on which independent contractors sell their services. And platforms like Rappi and Cornershop take this one step further. They do not own the logistics infrastructure (the vehicles owned by delivery people) or the goods being delivered. They function as both a platform for individuals to sell their delivery services and for local businesses to sell their products.

New ecosystem players

New ecosystem players—including aggregators, payment facilitators and start-ups—are by definition technology-based. Their platforms position them ideally to serve new consumer groups and non-traditional merchants, as well as to integrate with diverse financial institutions and payment methods.

Nearly two-thirds of new ecosystem players (63%) in AMI's sample use AI and machine learning, compared to 50% of financial institutions and 48% of merchants overall. Their employment of these tools also tends to be both more advanced and more fundamental to their everyday processes, rather than an experiment or fringe project. They often use machine learning for predictive purposes such as fraud detection, creditworthiness evaluation, predicting online purchasing behavior and automated routing of transactions for optimal payment authorization rates.

Simplicity and flexibility are the strengths of new ecosystem players. For example, for many payment facilitators working with e-commerce merchants, it is a competitive advantage to offer a single API that permits connections to multiple payment methods and features. dLocal's single API grants merchants access to more than 250 payment methods across Latin America. Culqi, a Peruvian start-up focusing on e-commerce enablement, has one open API that grants merchants access to all its services, including recurring payments and one-click payments in real time. This enables maximum scaling potential for both the company itself and its customers. These companies and others are defined by their agility, and by filling the gaps in the existing payments ecosystem via responsive product development and deployment.

Current footprint and ability to scale

Key indicators measuring
Current footprint and ability to scale

- Number of markets where it operates in Latin America
- Number of mobile app downloads
- Number of active app users
- Number of unique online users
- Total customer base

Often, company size is inversely correlated with innovation—the largest companies can also be the most conservative and the slowest to adapt to changing circumstances. They frequently have massive infrastructure and overhead that bog down responsiveness. By the same token, however, a large customer base also powers a company's ability to scale. Our most innovative includes some of the largest financial institutions and merchants in Latin America, as well as small—but rapidly growing—up-and-comers.

Another indicator of a company's innovation is to analyze how well it manages to transcend international borders. Expanding internationally calls for immense flexibility and problem-solving: accommodating customer preferences, adapting to diverse regulatory environments, coping with fluctuating levels of competition and different industry structures, new local payment methods and differences in overall market readiness. The ability to rapidly and successfully export a company's presence indicates agility, resilience and a wellspring of creative problem-solving ability.

In AMI's sample of Latin American firms, the average number of markets where companies operate is a meager 2.9. Among the most innovative, this number nearly doubles to 5.4. Airlines and travel companies are, not surprisingly, best-in-class in this category: LATAM Airlines, Despegar.com and Aeromexico lead the region, each present in more than 15 markets.

Digital companies have an inherent advantage when scaling internationally, since they have no need to build physical stores nor ship physical products. For companies like Cabify, Easy Taxi and MercadoLibre, consumers need only an Internet connection to access their service. This is yet another reason why the marketplace model contributes to overall agility, creating as it does a platform for locals—wherever they are located—to buy and sell online.

A significant expansion challenge that digital companies face is related to payment methods. For online sales, internationally enabled credit cards comprise less than 50% of total volume: domestic-only credit cards, debit cards and alternative payment methods make up the rest. So effectively reaching the population in a given market calls for integration with local financial institutions, which in turn requires the creation of a legal entity, along with other bureaucratic hurdles.

This is where innovative payment providers come into play. Companies like Ebanx and dLocal have invented disruptive models that enable cross-border e-commerce by using local payment methods, getting around many of the previously mentioned obstacles. MercadoLibre created its own payments platform, MercadoPago, to facilitate payment flows in key markets. Collaborating with such companies to expand service availability to consumers throughout Latin America will be an increasingly critical element of innovation.

As we have seen in this section, levels of innovation in Latin America are disparate. Leading financial institutions, select brick-and-mortar merchants and digital native players lead the way, with others embracing innovation to a varied extent. The most innovative companies designation provides a benchmark for traditional companies in terms of becoming more innovative and signals the direction in which innovation in the region is headed. In the following section, we will review the state of innovation in each market analyzed.

The innovation landscape by market

BRAZIL

Based on the insights gathered in this study, Brazil can be considered Latin America's technology innovation leader, home to eight of the region's most innovative firms. This is largely due to a flourishing ecosystem of financial and commercial entities, including the region's largest financial institutions and world-class retail groups. In addition, some of the region's biggest start-up success stories, including 99 Taxis and Easy Taxi, sprang up from Brazil's fertile soil. Other Brazilian innovators include retailers Magazine Luiza, O Boticário, Ponto Frio and Netshoes, as well as financial institutions Itaú, Bradesco, Santander, Cielo and Trigg.

A robust local payments ecosystem has supported and enabled innovation in payments. Nearly a decade ago, forward-looking regulators mandated card interoperability, which broke up bank monopolies, fostered competition among acquirers and ushered in payment aggregators and facilitators. For this reason, as well as its size and other attractive traits, Brazil was the first Latin American country to attract global technology companies such as Netflix, Facebook, Google and Uber. Apple Pay and Samsung Pay launched first in Brazil. Finally, Brazil's competitive payments arena has attracted hundreds of millions in fintech venture capital. Brazilian start-ups attracted nearly 90% of the $570 million invested in fintech in 2017, and of the top 10 fintech deals in Latin America in that year, six of them took place in Brazil.[9]

In comparison to other markets in the region, Brazilian firms are leaders in high-tech innovation. Their businesses have incorporated advanced technologies like machine learning, AI and big data into their DNA at a much faster rate than in neighboring countries. Brazilian fintechs and financial institutions are beginning to adopt blockchain—nearly unknown elsewhere in Latin America. The country's banks and retailers are dabbling in biometrics with an emphasis on facial recognition, as well as tokenization, chatbots and other leading-edge high-tech tools.

For all these reasons, Brazil is positioned to continue to lead the region in innovation, forging a path for the rest of Latin America to follow.

[9] Fintech Global. March, 2018. "FinTech investment in Latin America reached record levels, with almost $600m raised in 2017" http://fintech.global/fintech-investment-in-latin-america-reached-record-levels-with-almost-600m-raised-in-2017/.

MEXICO

While Brazil leads the region in high technology, Mexico is a leader in business model innovation, showing unmatched adaptability in the face of shifting business conditions. Five of Latin America's most innovative companies are Mexican. Financial institutions like BBVA Bancomer, Banregio and HSBC are leading in banking and payment technology, while merchants—including Amazon and Aeromexico—lead the way in e-commerce. Oxxo is amongst the top leaders in brick-and-mortar innovation, and start-ups like PayClip and Conekta are champions of the fintech community.

With credit card penetration only at 10% of the population[10], many Mexican consumers still lack access to an electronic payment method. As a result, the country's innovators have focused on expanding access to banking in new ways. They have developed omni-channel solutions that integrate digital and physical channels, giving their customers unprecedented flexibility. They have created new channels for financial services—like Oxxo's successful Saldazo prepaid card and Banregio's banking app Hey Banco—as well as alternative payment methods that grant access to e-commerce for underbanked customers. Examples include Amazon's Amazon Cash product and retailer Elektra's Crédito Elektra, a digital line of credit issued to non-credit card holders to be used for online shopping.

Fintech start-ups are also thriving in Mexico. Finnovista reports indicate that the country is home to over 340 fintech start-ups, largely focused on payments, remittances and lending. These start-ups aim to generate the democratization of digital payments, employing technologies like digital wallets, mPOS card acceptance and alternative channels for card issuing. The Mexican government passed Latin America's first fintech laws in early 2018, and their implementation will help to ensure a bright future for the country's digital economy and innovation adoption.

[10] World Bank Findex, 2018.

COLOMBIA

Four of Latin America's most innovative companies are based in Colombia. Like Mexico, the nation's innovators are engaged in helping its population gain greater access to electronic payments and banking. Colombian innovators include financial institutions (like BBVA and Davivienda), payment processor Credibanco and, most noteworthy, Rappi, the online delivery platform.

There is no greater evidence of Colombia's potential than the runaway success of Rappi, one of the few Latin American unicorns to be valued at over one billion US dollars.[11] Delivery services were always popular in Colombia, and Rappi leveraged this phenomenon to create a robust digital delivery platform, streamlining the process for both consumers and merchants.

The service boasts over 4,000 delivery drivers ("Rappitenderos") in Bogotá alone, with more in Brazil, Mexico, Argentina, Chile, Peru and Uruguay. And now Rappi is poised to do for payments what it did for home delivery with the launch of the digital wallet RappiPay. Enabling P2P payments as well as payment of Rappi deliveries, the platform has the potential to power other payment capabilities like bill pay and e-commerce payments and potentially function like a bank. Incorporating the use of a prepaid card and a sophisticated technology system helps Rappitenderos decrease their use of cash and increase security. Other digital payment platforms—like Bancolombia's Nequi—are generating ways to make digital payments more accessible and appealing to the population in a similar fashion.

ARGENTINA

Despite its persistent economic woes, Argentina is home to one of Latin America's strongest software development industries, offering deep expertise in design and user experience. This has generated the conditions for the rise of powerful digital firms: two of the region's greatest e-commerce success stories began in Argentina. MercadoLibre is the top LatAm e-commerce site by number of visitors while Despegar.com is the region's foremost online travel agency by volume, with a strong presence in 21 countries and counting.

On the downside, political and economic turmoil has stifled support for innovation by spooking potential investors time and again. This has limited the development of a robust start-up ecosystem. Nevertheless, new opportunities are imminent; in January 2019, Prisma, Argentina's leading merchant acquirer, agreed to sell 51% of its shares to Advent International, a global private equity firm.[12] Once these dealings are finalized, the market shifts they produce may create room for payments start-ups to enter the market with innovative products and services... and hopefully thrive. This, along with other recent moves by Argentina's government and Central Bank, including the promotion of real-time payments and a government-developed digital wallet, are promising signs that the nation may rise in the ranks of Latin American innovators.

[11] Clark, Kate. 2018. Tech Crunch. "Rappi raises $200M as Latin America tech investment reaches new heights." https://techcrunch.com/2018/08/31/rappi-raises-200m-as-latin-american-tech-investment-reaches-new-highs/.

[12] Advent International. 2019. "Advent International to acquire 51% of Prisma Medios de Pago, Argentina's leading payments company." https://www.adventinternational.com/advent-international-to-acquire-51-of-prisma-medios-de-pago-argentinas-leading-payments-company/.

CHILE

In Chile, many thriving brick-and-mortar and e-commerce firms saw their beginnings in Chile. LATAM Airlines, one of the region's largest airlines and a pioneer of e-commerce, ranks high among the country's success stories. Retail groups like Falabella and Cencosud have also been making waves—Falabella's high profile acquisition of online marketplace Linio in 2018 was a bold move to deepen its presence in e-commerce. In addition, these retailers have matched and even surpassed banks in terms of card issuing in Chile and other markets, including Colombia and Peru. Their success has afforded millions of customers access to credit (and to an electronic payment method) for the first time.

Among financial institutions, banks like CMR Falabella and Banco de Chile have become regional leaders in contactless card issuing. As a result, Chile is the regional leader, followed by Costa Rica, in contactless payment penetration and modernizing the POS experience. And a number of Chilean start-ups are moving to take advantage of the developing digital ecosystem, including peer-to-peer lender Cumplo and Cornershop (just acquired by Walmart).

However, some Chilean respondents report that local regulation has stifled innovation. Until 2017, stringent regulations blocked the issuance of electronic money. This had the effect of making prepaid payment methods illegal, thereby choking off the development of alternative payment methods for the unbanked. But a new prepaid law on the books since 2017 permits this type of payment method, and this has ushered in innovative start-ups such as Club Finciero. This company provides prepaid cards for the purchase of digital goods on sites like Netflix, Spotify and Steam for consumers who otherwise would have no access to e-commerce. With this important regulatory change, the future is looking brighter for Chilean innovation.

PERU

While Peru boasts one of the fastest-growing economies in the region, it is also the most cash-dependent and least formalized of those analyzed in this study. As a result, on the whole, levels of digitization and adoption of new technologies are low. Most Peruvian firms are still in the early stages of digital transformation—creating apps, enabling e-commerce and otherwise setting the stage for more advanced modernization down the road.

While no Peruvian company ranks among the most innovative firms in Latin America, there is nevertheless cause for optimism for the nation's entrepreneurs. Local start-up Culqi, winner of the Visa Everywhere Initiative in October 2018, is an e-commerce payment gateway that greatly eases the onboarding processes for merchants, enabling them to sell online faster and more easily than ever before. Other success stories include La Positiva, an innovative online insurer, and Banco de Crédito de Perú, the country's largest bank and creator of Yape, an interbank P2P payment platform. As digitization matures in Peru, its path of development will most closely resemble that taken by Mexico: increasing access to digital payments and banking via new business and distribution models.

Final thoughts: Innovation in Latin America

This report set out to study and analyze the characteristics of Latin America's most innovative companies with the goal of providing insight into the current state of innovation and to serve as a guide and benchmark toward accelerated innovation for companies in the region. With innovative international and regional players moving in local markets and Latin American consumers generating powerful expectations, innovation is no longer the domain of the technology industry, but a necessity for staying competitive for all businesses in the region.

Broken out by country, industry and prevailing indicators, certain trends become clear as defining factors forming the Latin American innovative landscape. An innovative corporate culture, the migration of corporate structure toward collaboration and partnership, the use of APIs, how intensively and effectively companies launch proofs of concept, the adoption of leading-edge technologies and the ability to expand across borders are all contributing elements that describe the best that the region has to offer. These components enable companies not only to deliver new innovation but also to react much more quickly to changing industry dynamics.

Customer-centric design is at the core of all innovative initiatives. New technologies and business models aim to speed up the purchase process, enhance convenience, increase personalization, create financial inclusion, increase flexibility and customer choice, as well as generate emotional, memorable experiences. Latin American consumers are becoming more sophisticated and choosier; companies who do not innovate to impress consumers in new ways risk losing market share.

Customer-centric design is at the core of all innovative initiatives.

Innovation in payments is coming from surprising places. Retailers now act as financial service providers. Online marketplaces are providing banking services. Traditional stores are adopting a marketplace model. Banks are using more open platforms to facilitate the payments experience, bolstering customer loyalty. Enabling tools that allow greater access to electronic payments–like expanding debit portfolios, contactless and cross border payments for e-commerce–will have an important impact on financial inclusion and digital transformation of the region. While much of Latin America still operates with cash, as technology becomes cheaper and more pervasive, it is only a matter of time before digitization replaces most traditional methodologies.

Nearly all of the companies surveyed report either having a marketplace model or are in the process of developing marketplace capabilities. The success of these platforms rides on the ability to attract and retain loyal consumers. Once that occurs, these platforms can offer any number of products and services. Pioneered by the likes of MercadoLibre, Amazon, Uber and Rappi, there is a strong and irreversible trend toward open-source, platform models that *enable*

commerce rather than *conduct* commerce. This model has migrated even to payments: Brazilian digital wallets Celcoin and RecargaPay act as open platforms to enable any type of payment, from mobile top-ups to public transport cards to digital services like online gaming. Their growth strategy consists in enabling as many suppliers as possible that consumers may need to pay.

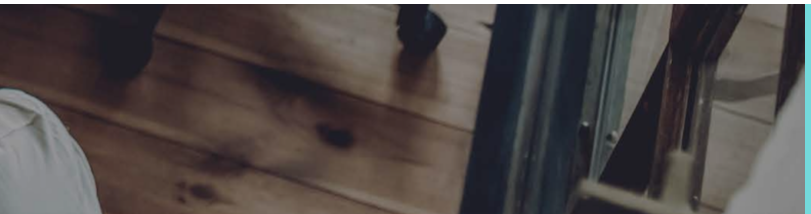
To stay competitive, traditional companies must understand that competition can come from anywhere. Companies should be thinking about which popular local platforms could potentially encroach on their business. International players like Amazon, Uber and Cabify, as well as local disruptors Easy Taxi, 99 Taxi, MercadoPago and Rappi, are good places to start looking.

Innovation in payments is coming from surprising places. Retailers now act as financial service providers. Online marketplaces are providing banking services. Traditional stores are adopting a marketplace model. Banks are using more open platforms to facilitate the payments experience, bolstering customer loyalty.

In conclusion, the current regional leaders of innovation are building a foundation that is calling to be built upon. As these leaders emerge, financial institutions, merchants and new ecosystem players from every part of Latin America will be able to stand on their shoulders, learning from these examples and setting new paths for innovation of their own.

Inherent to these trends is that success is not something that happens in a vacuum—a corporate culture committed to innovation internally and externally through collaboration and partnership, customer-centric design and agility are all necessary ingredients for building innovation in any industry in Latin America. Reluctance to change, allegiance to legacy systems and processes are models that no longer work with the connected consumer of today, who expects and demands speed, convenience and nuance.

Disruption is already occurring in real-time in Latin America and there is still ample time for the region's firms to adapt and become the new leaders of innovation in their respective markets, competing as innovators themselves.



Appendix

SCORING METHODOLOGY

To collect data for this analysis, AMI conducted interviews with relevant executives at each of the 85 participating entities. Once all data points were extracted from these interviews, they were subjected to a rigorous analysis, including the following steps:

- Each indicator was weighted and received an individual score.
- Indicators were then organized into their corresponding conceptual pillars and summed to yield a total score for each pillar. These were also weighted.
- Finally, each pillar score was added together to yield a final overall Innovation Score.

LIST OF INDICATORS[13]

Internal support for innovation

- Presence of an innovation team/department or a Chief Innovation Officer
- Number of employees in the innovation department
- Presence of an innovation lab or other dedicated space
- Number of developers on staff
- Number of available APIs
- Number of APIs that are open
- Number of APIs created in the past year
- Number of partnerships with start-ups
- Having participated in a Visa Innovation Center co-creation
- Number of collaborations with Visa

Execution

- Number of payments proof of concepts developed in past three years
- Number of payments proof of concepts successfully launched
- Number of new payments products currently in development
- Number of non-payments related proof of concepts developed in the past year
- Average number of months for a proof of concept to be launched
- Percentage of total sales that are made online
- Percentage of online sales that are made over the mobile channel

Use of technology

Financial institutions

- Percentage of credit card portfolio that is contactless-enabled
- Percentage of debit card portfolio that is contactless-enabled
- Percentage of credit card portfolio that is cross-border enabled
- Percentage of debit card portfolio that is cross-border enabled
- Percentage of credit card portfolio that is enabled for e-commerce
- Percentage of debit card portfolio that is enabled for e-commerce
- Percentage of credit card portfolio that is a virtual card
- Percentage of debit card portfolio that is a virtual card
- Creation of a proprietary digital wallet
- Integration with third party digital wallets
- Enablement of QR codes
- Usage of biometrics
- Usage of geo-locating
- Percentage of POS terminals that are contactless-enabled
- Percentage of POS terminals that accept payment via QR code

[13] Indicators were applied to each participant depending on company type and relevance of the indicator for the participant's business.

- Percentage of POS terminals that are mPOS devices
- Percentage of card volume that is captured using a mPOS device
- Percentage of card volume that is card-not-present volume
- Enablement of recurring payments
- Enablement of one-click checkout

Merchants

- Acceptance of payment via QR codes
- Acceptance of digital wallets for payment for in-store payments
- Acceptance of digital wallets for payment for online payments
- Creation of a proprietary digital wallet
- Percentage of POS devices that are contactless-enabled
- Usage of the Internet of Things
- Usage of biometrics
- Usage of Bluetooth beacons
- Usage of omnichannel/order-ahead options
- Usage of card-on-file
- Usage of tokenization
- Usage of recurring payments
- Usage of one-click checkout
- Usage of electronic solutions for loyalty
- Usage of website to sell advertising
- The level of marketplace capabilities

New ecosystem players

- Percentage of customers that are unbanked
- Percentage of transactions that are cross-border
- Number of direct competitors

All participants

- Usage of cryptocurrencies
- Usage of data analytics
- Usage of artificial intelligence
- Usage of machine learning
- Usage of chatbots
- Usage of blockchain

Current footprint and ability to scale

Financial institutions

- Number of credit card holders
- Number of debit card holders
- Percentage of credit card holders that were active in the past 30 days
- Percentage of debit card holders that were active in the past 30 days
- Number of daily active app users
- Number of merchants served
- Number of installed POS devices
- Card-present volume
- Card-not-present volume

Merchants

- Number of mobile app downloads
- Number of daily active app users
- Number of unique online users
- Number of stores
- Average number of daily in-store shoppers

All participants

- Number of Latin American markets in which the company operates

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