strategy&

Convergence of payments

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Introduction and definition

The world is changing rapidly. Emerging technologies are making it possible to search for, compare, consume, review and promote services at the push of a button. These advancements are making it necessary for payments, which is the backbone of these value chains, to keep up with the change. To do this, payments need to be seamless in any new scenario – whether making a payment to a friend or purchasing something online.

Digital payments are in vogue in financial markets. Where financial institutions are too slow to adapt, FinTechs and BigTechs are preparing to fill the gaps. The future for payments is promising. As our world evolves and becomes more digital, we will see payments converge. Payments convergence can be defined as methods that allow for payments to be made seamlessly; bringing together all the benefits, options and services that are associated with a payment.

The convergence of payment methods has transformed to meet customer expectations, streamline transactions and provide seamless integration. Some popular examples include:

- **Social media —** as platforms for online retail. The 'buy now' option on Twitter, Instagram and Facebook Marketplace permits consumers to 'swipe up' and buy.
- **Customer finance —** retailers offering 'buy now, pay later' solutions enable customers to pay for items in installments as opposed to paying the full amount upfront.
- **Claim disbursements —** insurers are leveraging push payment solutions like Visa Direct to reduce costs and enhance customer experience by issuing disbursements digitally and in real time.
- **E-commerce —** one-click buying allows consumers to make purchases using predefined shipping and credit card information, thereby minimising the degree of shopping-cart abandonment.
- **Travel and leisure —** consumers are able to travel by rail, bus or plane and pay for these services via a contactless smart card or by means of a mobile app that draws value from a single account.
- **Mobile banking —** the convergence of telcos and banks has introduced a myriad of new payment solutions into the global marketplace. High mobile penetration has dramatically increased the accessibility of financial services. Telcos are taking advantage of their large customer bases to promote the take up of financial products in addition to their existing offerings.
- **Online payment gateways —** allowing customers to connect to banking accounts from e-commerce portals; simplifying payment methods for online purchases.

Mobile phones and the internet have provided the world with new ways of doing business. With increasing mobile phone penetration, especially in developing markets, we will continue to see innovation and expansion of mobile payments. Although mobile payment expansion is just one of the many facets of payments convergence, it will play a leading role in defining how we pay in the future.

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Will the rate of digital payment convergence be the same for all markets?

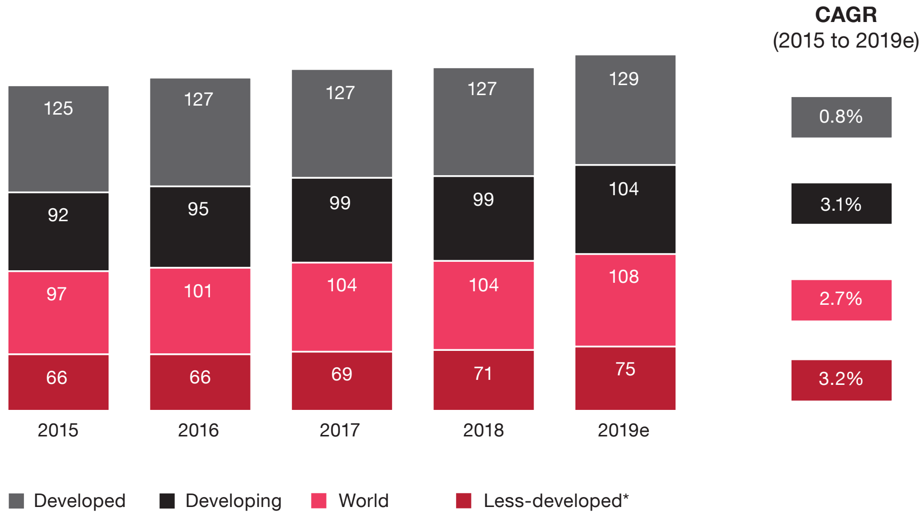
The payments industry of each jurisdiction is linked to underlying economic performance and structures. The main levers for adoption of digital payments include internet and mobile-phone penetration, the prevalence of account ownership, the degree to which the population is urbanised and digital literacy. Utilising mobile phones, digital currencies and e-wallets are becoming more dominant in the payment space, as the trend is increasingly becoming evident in emerging markets and spreading across the globe.

Emerging markets have changed over the years as financial inclusion has widened, technology penetration has deepened, and governments have introduced policies to promote growth and mitigate risk. This has created an opportunity that has enabled technological development supported by increased mobile penetration and app-based payment services that have contributed to deepening financial inclusion.

As the spread of mobile internet connection and smartphones increases, it is creating a golden opportunity for payment providers to leverage smartphone benefits. Characterised by a large and growing young population, the estimated growth rate in mobile subscriptions in developing markets has exceeded the developed markets and global average in the last three years. With the largest smartphone adoption estimated to come from Latin America and the Middle East in five years.

Rapid growth in adoption can be attributed to smartphones and data packages in less developed countries, such as Bangladesh and Uganda, becoming affordable and providers offering 'lite' versions of mobile applications, further accelerating the growth of mobile connectivity and driving the demand for digital content and access.

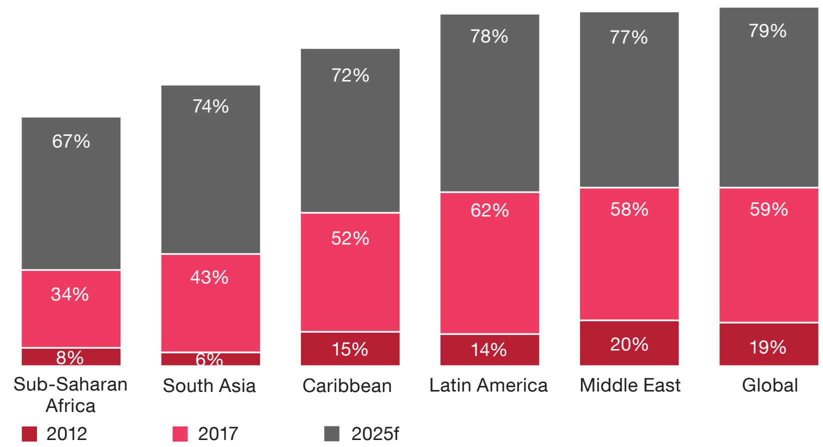
Mobile-cellular subscriptions based on different markets
(per 100 inhabitants, 2015 to 2019e)



Source: ITU

*Less-developed countries (LDC's) are classified by the United Nations as countries confronting severe structural barriers to sustainable development and are highly vulnerable to economic and environmental shocks.

Global and regional smartphone adoption in emerging markets
(Smartphones as a percentage of connections, for 2012, 2017 and 2025f)



Source: GSMA 'Beyond the basics: How smartphones will drive future opportunities for the mobile money industry' report.

Emerging markets are currently driving the growth of digital payments and widespread adoption of digital wallets with countries such as China and South Korea leading the charge globally with mobile payments adoption rates of 32.7% and 24.4% respectively. The success of e-commerce platforms, and innovation in mobile payments, were key drivers for growth, particularly in China, where the payment methods that dominate the market are WeChat and Alipay and surpassing the market share held by PayPal.[1]

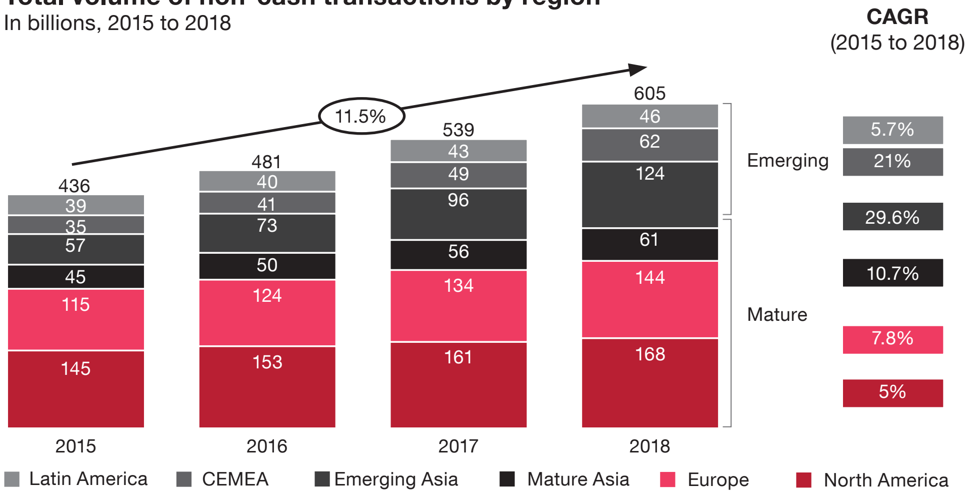
While growth in the Central Europe, Middle East, Africa (CEMEA) region was largely driven by infrastructure modernisation and alternative payment methods, with countries in East Africa, such as Kenya, having industries dominated by mobile money due to the success of services such as M-Pesa. However, this uptake in mobile money did not translate into West Africa due to a strong cash preference, low literacy rates, lack of necessary documentation and a lack of trust in mobile payments.

Based on shortcomings such as high infrastructure costs and penetration in informal markets, many countries have already started to embrace alternative payment methods. Countries such as India and Vietnam have higher payment app penetration levels but have an average spend per customer that is lower than most of their counterparts, which would suggest that the majority of transactions are informal and performed by a large base of consumers.

1 *"China is Fast Becoming the World Leader in Mobile Payment." World Economic Forum. Accessed October 20, 2020. https://www.weforum.org/agenda/2019/05/chinas-mobile-payment-adoption-beats-all-others.*

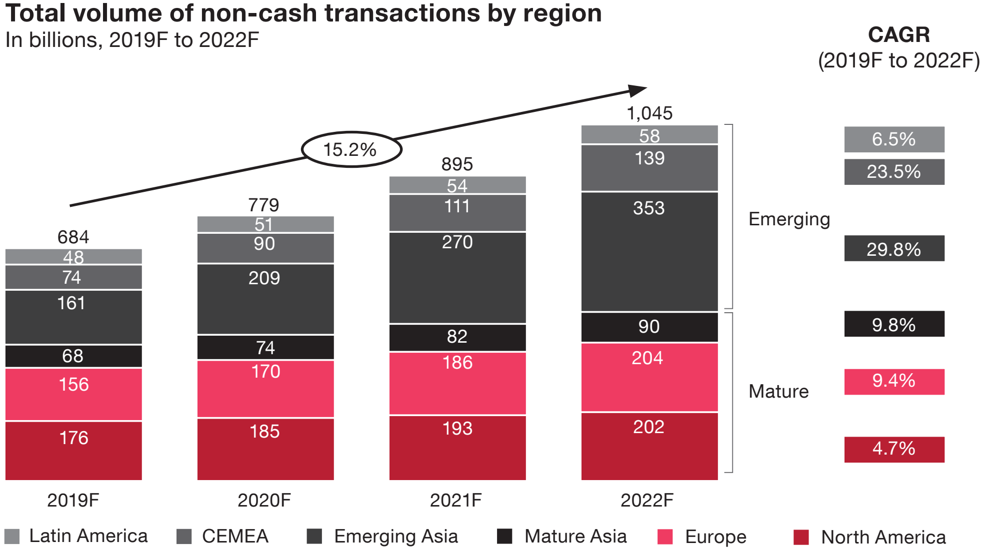
Alternatively, card transactions are still more prevalent in developed markets, such as the United States, where they are still the most popular payment method by far. Furthermore, the sluggish growth of digital payments in mature markets can be attributed to a dormant millennial population and a slower rate of penetration of digital payment tools in the market.

Total volume of non-cash transactions by region
In billions, 2015 to 2018



Source: Capgemini Research Institute, World payments report 2019

Total volume of non-cash transactions by region
In billions, 2019F to 2022F



Source: Capgemini Research Institute, World payments report 2019

From a global perspective, the increase in smartphone adoption and general connectivity has seen the size of the e-commerce market show growth over the years. More importantly, the rise of m-commerce is gaining traction and gives way to expectations that markets with a strong mobile-first user base will further aid the development of digital economies.

Market insights show that the popularity in online shopping has resulted in 45% increase in online purchases made only with a mobile phone by 2023, and a trend more prominent in China and the Middle East due to higher mobile payment adoption rates as well as transaction value. Additionally, 85% of German citizens have shopped online during 2020.[2] The full scale of growth may have been accelerated by the outbreak of COVID-19 as China reported a 20% increase in online shopping and Italy saw a sharp increase of 71% in the first week of March when compared to figures reported in the last week of February 2020.

Cashless payment innovations, driven by a collaborative ecosystem, can boost BigTech players. Sixty-two percent of banks have indicated that the infrastructure of the business models used by BigTechs is a threat for them. Open Application Programme Interfaces (APIs) as well as ecosystem-based models can be the key to sustain market share and help banks to be more competitive.

Ninety percent of banks are in agreement with an ecosystem-based business model and believe that it is necessary to keep up with technology. However the stumbling block is that they are not particularly good at adopting new technology, and tend to show unwillingness to share mandated data with other entities. Usually if there is regulatory compliance involved, just around 48% of banks tend to be willing to make use of an open API business model. When it comes to new ecosystems and enabling infrastructure dynamics, the market leaders are Singapore, UK, Finland, Norway, Sweden and the Netherlands with the US, Italy and Saudi Arabia lagging behind.

2 *“Ecommerce in Germany: €103.4 Billion in 2020.” Ecommerce News. Last modified June 26, 2020. https://ecommercenews.eu/ecommerce-in-germany-e103-4-billion-in-2020.*

How has COVID-19 accelerated the rate of digital payment convergence?

An indicator of how well a country can respond to the impact of COVID-19 is in the reach and effectiveness of the payment ecosystem. Countries with advanced government-to-person (G2P) payment ecosystems and digital payments infrastructure can better respond to the impact of the coronavirus pandemic at a faster rate. Globally, governments are looking for ways to make direct payments to beneficiaries in order to alleviate some of the economic effects of the pandemic.

In Chile, low income citizens have access to Cuenta Rut; a basic bank account linked to the national ID. More than 2m Chileans were able to receive COVID-19 related social relief from the government through transfers to their bank accounts. In India, a Rs1.7 trillion financial assistance package was announced that would include cash transfers for the poor to help them deal with the impact of the outbreak. Due to existing efforts that had been carried out by the Indian government to bank the unbanked population, payments can be made directly into beneficiary bank accounts.

In Peru, authorities have leveraged earlier successes disbursing G2P payments through bank accounts to increase payments to old beneficiaries and facilitate payments to new beneficiaries during the pandemic. In order to gain better reach and service additional beneficiaries, authorities are also expanding the number of financial service providers to include providers such as private banks and mobile money providers.

Thailand's recent regulatory changes allow for COVID-19 related social relief to the poor and informal sector workers by disbursing payments to bank accounts through the PromptPay system, which is a fully interoperable, instant payment system that reduces the need for beneficiaries to withdraw the money in cash. In countries with greater adoption of digital financial services, it has been easier to ensure continued access to financial services during the pandemic.

Strides are being made to use cashless payments during the pandemic, according to a survey by the Electronic Transactions Association. More than 27% of small businesses in the United States already report an increase in contactless payment services. Mastercard has also increased the limits on the contactless payment services in 29 countries in Europe. Unbanked individuals are allowed to receive their COVID-19 related relief cheque via mobile payment services.

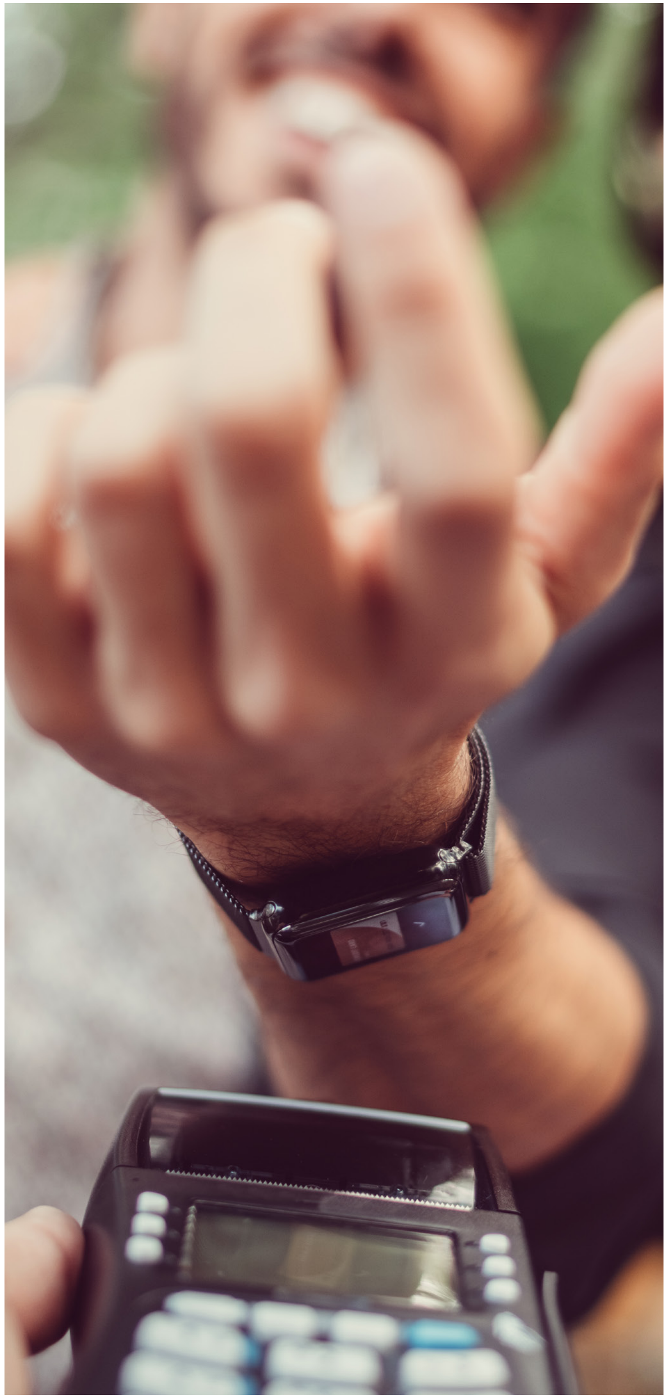
The US has started sending prepaid debit cards out to citizens in a bid to provide social assistance. The cards replace government cheques and allow recipients to make purchases, get cash from in-network ATMs and transfer funds to their personal bank account for free.

In Kenya, small and medium-sized enterprises (SMEs) are now allowed to transfer 150,000 Kenyan Shillings a day via Safaricom's M-pesa mobile money service, which is more than double the previous level. Safaricom also introduced a fee waiver for all person-to-person (P2P) transactions under 1,000 Kenyan Shillings for three months. This followed engagements between Safaricom and the Kenyan Central Bank around finding ways to deepen mobile-money usage and reducing the risk of spreading the virus through the physical handling of cash.

Ghana's monetary body has eased know-your-customer (KYC) requirements to enable more customers to open a mobile money account in efforts to reduce the use of cash. The central bank also directed mobile money providers to waive transaction fees under 100 Ghanaian Cedi.

Countries with underdeveloped G2P payment ecosystems and digital payments infrastructure are unable to respond to the pandemic at a fast rate. However, COVID-19 represents an opportunity to accelerate initiatives aimed at interoperability, mobile money adoption and digital financial services.

The new realities brought about by the pandemic have accelerated the shift to digital or a cashless economy as well as individuals' pre-existing online presence and behaviours as consumers explore different ways to access products and services. In the developing world, this transition doesn't only facilitate a safer payment environment but, in the long-term, will be a shift towards greater financial inclusion.



What were the payments convergence journeys across different jurisdictions?

Observing the stories from some of the leading jurisdictions, we can see that the approach and journey to payments convergence varies significantly across markets.

China

In China we see the first extreme when it comes to digital payments. Due to the exceptionally high internet and mobile penetration and low card acceptance, tech giants Tencent (WeChat) and Alipay revolutionised payments, managing to penetrate the market before the banks or the People's Bank of China (PBOC) could provide a viable alternative. The PBOC was not regulating the mobile payments landscape at the boom of its mobile payments revolution and, as a result, experienced high fraud risk.

This led to the PBOC retrospectively having to tighten its regulation to counter fraud risks introduced by QR payments. The use of mobile phones to access e-Wallets and QR codes is enabling Chinese consumers to skip the use of cash, cards and other payment methods altogether. e-Wallets have become so ubiquitous in China that 61% of WeChat users open the app more than 10 times per day.

India

In contrast with the PBOC's role in China's payments convergence journey, the Indian government played a key driving role to facilitate the country's digital payment journey. It used levers such as telco infrastructure development initiatives, demonetisation policies and incentives for the use of its digital payment products to support the country's modernisation journey.

Further, there was strong collaboration between banks and fintechs to realise payments modernisation and financial inclusion. This collaboration aided significantly in meeting the tight deadlines set by the regulator. Indian consumers benefited from a number of products, with the most significant ones being:

- UPI, a real time payment system with pay by proxy and request to pay functionality;
- BharatQR enabling QR payments;
- Aadhaar, a biometric identity for citizens, acting as a financial address for the unbanked; and
- Bharat Bill Pay, an integrated bill payment system that consumers can use to pay bills digitally, 24/7.

The journey towards payments convergence saw significant improvements in financial inclusion and volume of payments. With the introduction of proxy payments, India experienced a 50% increase in the number of transactions, mostly new to its system.

Australia

The Reserve Bank of Australia (RBA) identified gaps in the country's retail payment system, after which it requested banks to come up with a solution. As a result, 13 financial institutions, including the RBA, started the New Payment Platform (NPP). Although the regulator was a catalyst for NPP, market forces were the main drivers.

Due to the nature and ownership structure of the scheme, some of its key benefits were delayed. One of these benefits is the growth and innovation expected from new overlay services, which have not grown as expected because that requires buy-in from the banks owning NPP.

Osko, an overlay service built on NPP infrastructure, provides consumers with instant payments. NPP further provides consumers with PayID, a proxy service that enables users to pay by using a proxy address, such as a mobile phone. Although there has been significant payments convergence in Australia already, there could still be more as its overlay services and service providers grow.

What are the driving factors of payment convergence?

Although the mix and prominence of drivers vary across different jurisdictions, we have seen a number of key factors driving payment convergence globally, all with different benefits to the consumer. They include:

Mobile phone and internet penetration

As can be seen from numerous global examples, mobile phone and internet penetration are key drivers of payments convergence. Consumers with smartphones have a variety of smart features available at their fingertips enabling them to conveniently consume and pay for services.

Infrastructure modernisation

Infrastructure modernisation plays a key role in enabling digitisation and ultimately digital payments. Sufficient digital infrastructure empowers even the most rural consumer to take part in the digital economy.

Regulatory drive

Regulators globally are pushing for payments innovation and fair competition to ensure consumers' basic needs are met while supporting financial inclusion. This necessitates the payments industry to think outside of their traditional box to stay in line with new requirements.

Emerging technology and market competition

Emerging technologies such as cloud, AI and API are enabling service providers across industries to continuously improve and reinvent themselves. This is providing payments providers with the opportunity to improve their services, as well as enabling new players to enter the market.

BigTechs and fintechs are becoming a threat to banks' market share as they expand their platforms and technology into the payments space. Where traditional players, like banks, could previously rest easy, they now need to start reinventing themselves to stay relevant. This includes expanding their payments services into new avenues.

Rising customer expectation

Payment service providers offer value-added products and innovation to carve out their strategic position in the market. With the fast-paced development of new technological solutions, payments providers are faced with ensuring that they keep up to date with industry developments to stay at par with their competitors.

Benefits of customer data

Financial services providers use their payments data to understand the behaviour and needs of their customers. Moving from cash to digital payments, or even a modern messaging standard like ISO 20022, provides financial institutions with the opportunity to receive transactions, rich with data, pertaining to their customers. This gives them the opportunity to understand the profile of their customer base according to risk management and product portfolio.

Cost-effective merchant solutions

Cost-effective merchant solutions with value-added services are key to driving adoption of digital payments. Merchants are looking for solutions that accommodate more than just payment methods, but rather include value added services and connections to more financial products and services such as credit. Merchants are also more likely to use digital payment methods that provide combined solutions to help manage and grow their business, in addition to the ability to accept payments electronically.

The cost of legacy infrastructure

As legacy systems age, they become more expensive to maintain, with fewer resource skills to ensure system stability. Cash-handling infrastructure is increasingly becoming a burden to banks as other payment methods become more efficient. In developing countries specifically, cash footprints are still dominant, with high volumes of low value cash transactions. By focusing on payments convergence, some of the costs relating to cash may be eliminated, while tapping into a new market.

Market behaviour with payment convergence: Will we see a cashless world?

The global payments industry is adapting to the changing world, although this journey is not without its challenges. While many countries are managing to overcome these obstacles, others find themselves in the midst of these, trying to navigate themselves towards a cashless economy. Some of these challenges include:

Fraud risk and security of digital payments

With the rise of digital payments, the threat of additional fraud and cyber risks is introduced. The payments industry has no choice but to invest in security and KYC standards that will manage these new threats as it moves towards digital payments. In many instances consumers, and payment providers alike, use this as an excuse to delay the move towards a cashless ecology.

The adoption of payment infrastructure by small merchants

Consumers will use what their merchants accept. Getting adoption from retailers and small and medium enterprises (SMEs) is a crucial step towards realising digital payments. Most non-cash payments require merchants to acquire expensive infrastructure, as well as high transaction costs. This could be a bit of a challenge, especially for smaller merchants.

Regulatory complexity

Regulators need to come up with policies that create an environment conducive for growth and innovation, whilst maintaining stability and security within the National Payment System (NPS). This isn't always an easy task, considering that opportunities for innovation, such as new market entrants and new technologies, often bring significant risk. Regulators also need to maintain a balance in terms of ensuring that the market addresses the payment needs of the consumer, while also providing the market with enough freedom to grow on its own terms.

Consumer confidence and behaviour

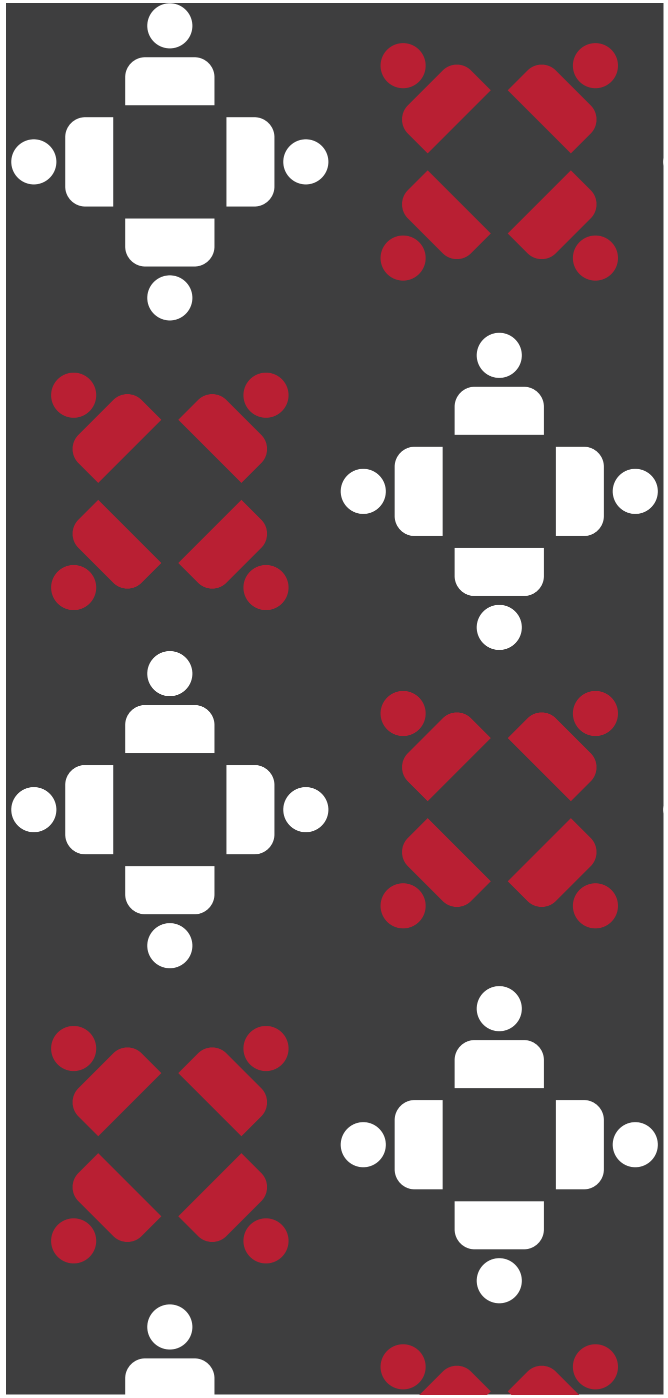
Although this may be related to the additional risks brought about by digital payments, consumer behaviour is another key consideration and sometimes obstacle to cash displacement. When trying to influence or change behaviours, it is crucial to match the services to the target demographics and digital literacy.

For instance, much of the criticism of Sweden's vision for a cashless society is that the elderly in more rural areas will be cut out of the payment system. Similarly, the Aadhaar Enabled Payment System (AePs) in India has received criticism due to the failure rates experienced by customers. Some banks place restrictions on the number of AePs transactions individuals can conduct in a day, and there are sometimes interrupted transactions due to poor connectivity or bank failures that leave customers without access to money.

Slow reaction of big banks

Even though big banks are the ones under the most threat of losing their market share, they are often the slowest movers. This may be due to the following reasons:

- Banks continue to make good margins on outdated payment methods like card and electronic transfers. Although this serves them well in the short run, it makes it harder for them to compete with global technological advancements.
- Banks are typically risk averse, especially when it comes to services with underlying threats.
- Older banks are likely to be tied to investments on old legacy systems, which ties their funds when it comes to investing in new systems.
- Bureaucratic rules and hierarchical corporate decision-making in banks often delay transformation projects.



Summary and conclusion

Convergence will be central in the transformation of the payments industry across jurisdictions, with providers looking holistically at the payment process and adding value beyond the transfer of funds. It is clear that concerns over the transmission of COVID-19 through contact has further accelerated the rate of adoption of digital payment systems.

However, the timing and approach for payment convergence will differ across the world, with emerging markets showing rapid change relative to mature markets due to the increased rate of mobile and digital adoption based on population and the availability of infrastructure. The rapid adoption of digital payments will open up the payments industry to a new normal and shape the way consumers interact with businesses, as well as how businesses interact with each other.

The payment providers who will be successful will be those that:

- Offer value-added products and innovations to the market with a strategic view in mind;
- Keep up to date with the latest technologies and adapt to changes, delivering services that meet client expectations;
- Target different areas of payment flows that are related to demographics, such as the middle class in China and Indonesia or link pensions to the baby boomer generation;
- Target small and medium sized enterprises (SMEs) to promote growth in the payment industry.

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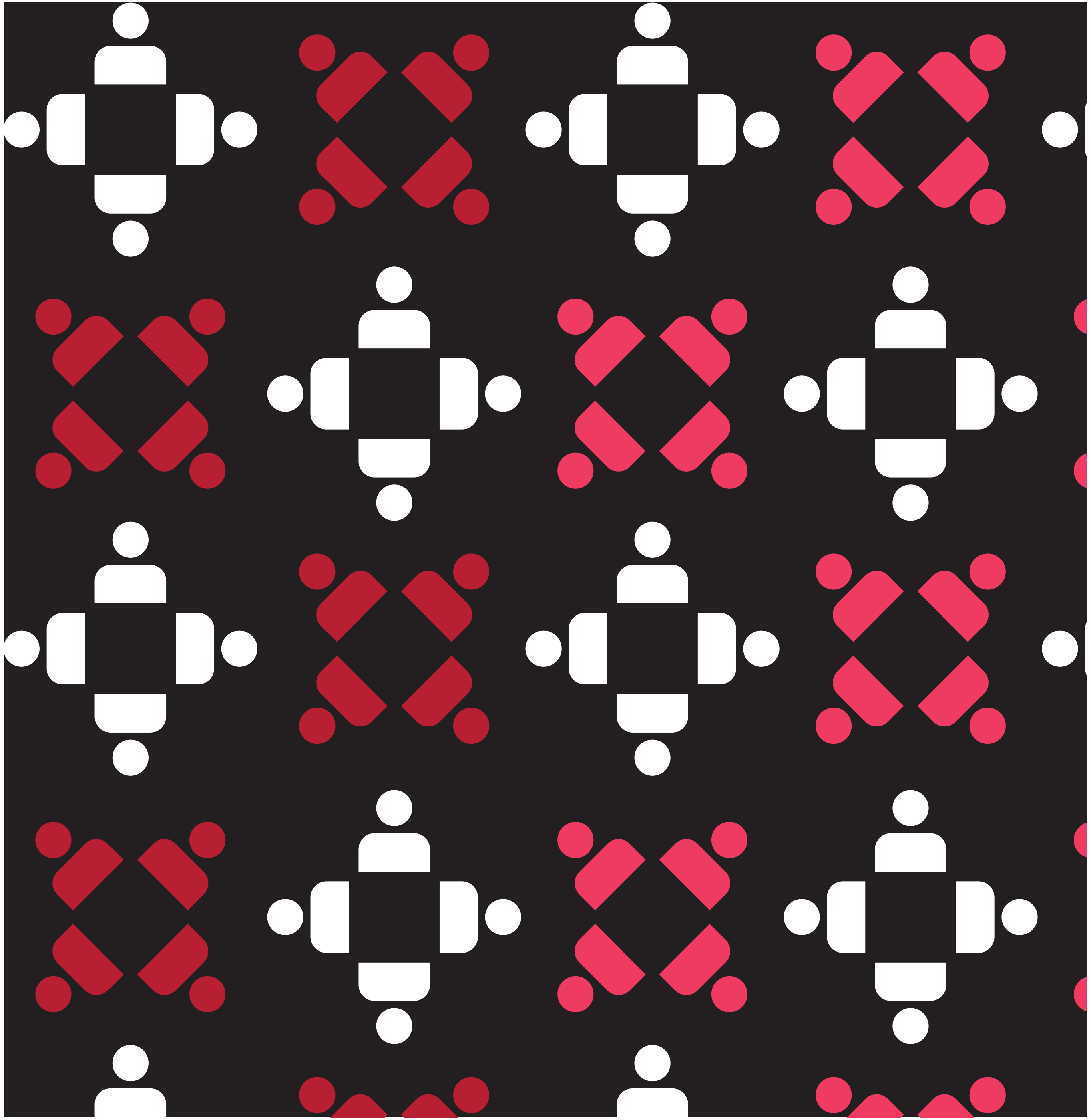

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