WHITE PAPER

FUTURE OF DIGITAL PAYMENTS

Abstract

The evolution of payments industry in last couple of years has been phenomenal, to say the least. The Asia Pacific region and China in particular has been the growth engine for this industry however the adoption is growing rapidly across the world and is an open field for all players to pursue. This significant growth is also poised to bring in disruption through new and redesigned business models thereby threatening existing players to consider a transformation to for adapting themselves in this changed paradigm. In this white paper, we look at the broad category of drivers which are fueling this evolution and the challenges they pose for incumbents. We will also look at how the incumbents are taking on the challenge to ensure their positions to secure their positions in the value chain.

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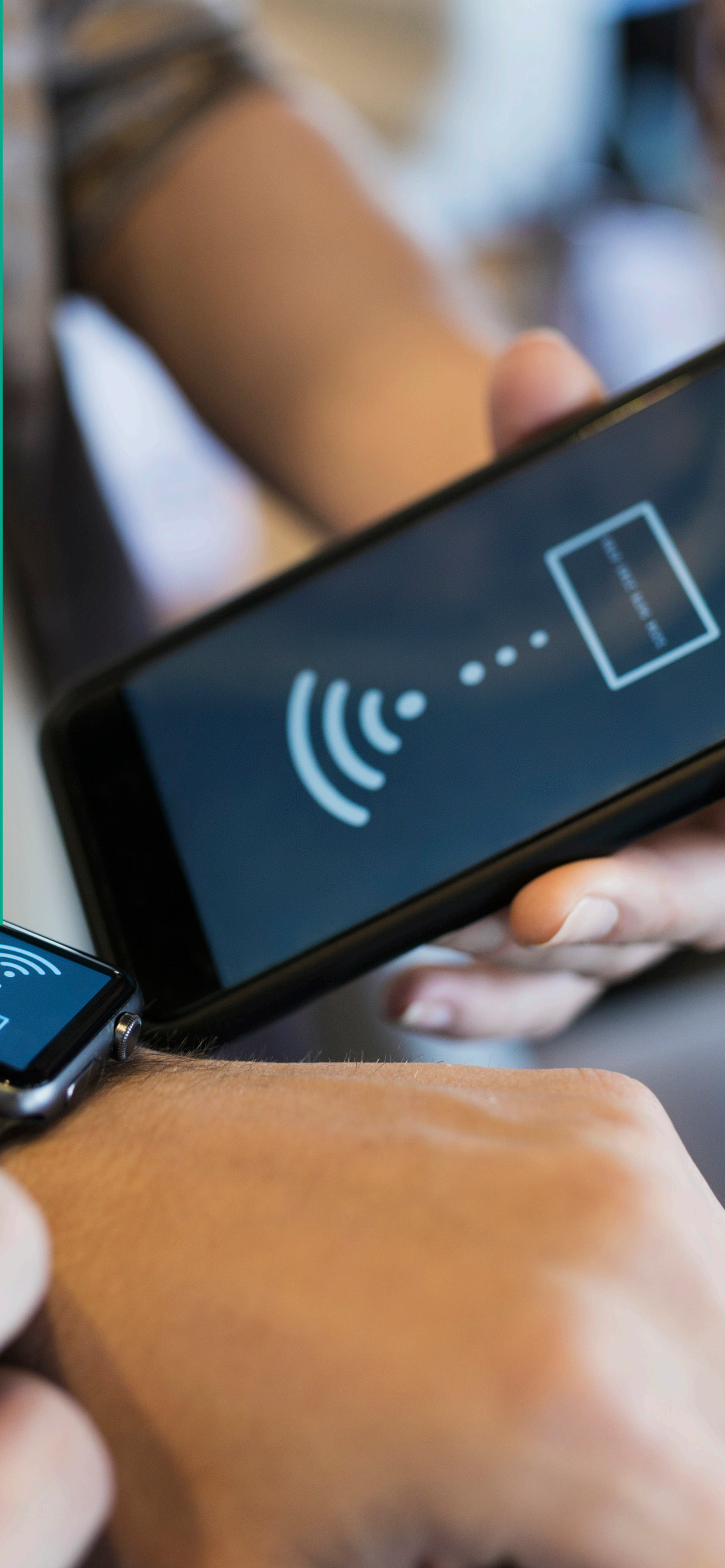
1. Digital Payments - An Overview

The ongoing digital revolution has disrupted the banking and cards industry. Simply put, these financial institutions (FIs) are no longer required to carry out financial transactions. The changes brought about through digital payments by fintechs riding on a crest of enabling regulations has resulted in significant erosion of the FIs' pie in the transaction market. Globally, such unique business models could impact up to 80 percent of existing banking revenue by the end of 2020 while the digital payments market is expected to reach $7.6 trillion by 2024[2] worldwide with an average CAGR of 13.7 percent between 2019–24.

In such a situation, the immediate objective for both banks and card companies is to stay relevant in this new ecosystem. In the longer term, the objective is to thrive in the changed landscape by exploring opportunities and reimagining their value propositions. For this, a comprehensive look at the challenges and opportunities that lie ahead for the FIs is required and how by leveraging digital technologies, they can reinvent themselves from close-looped institutions to open, collaborative and customer experience driven enterprises.



2. Drivers of Digital Payments Globally

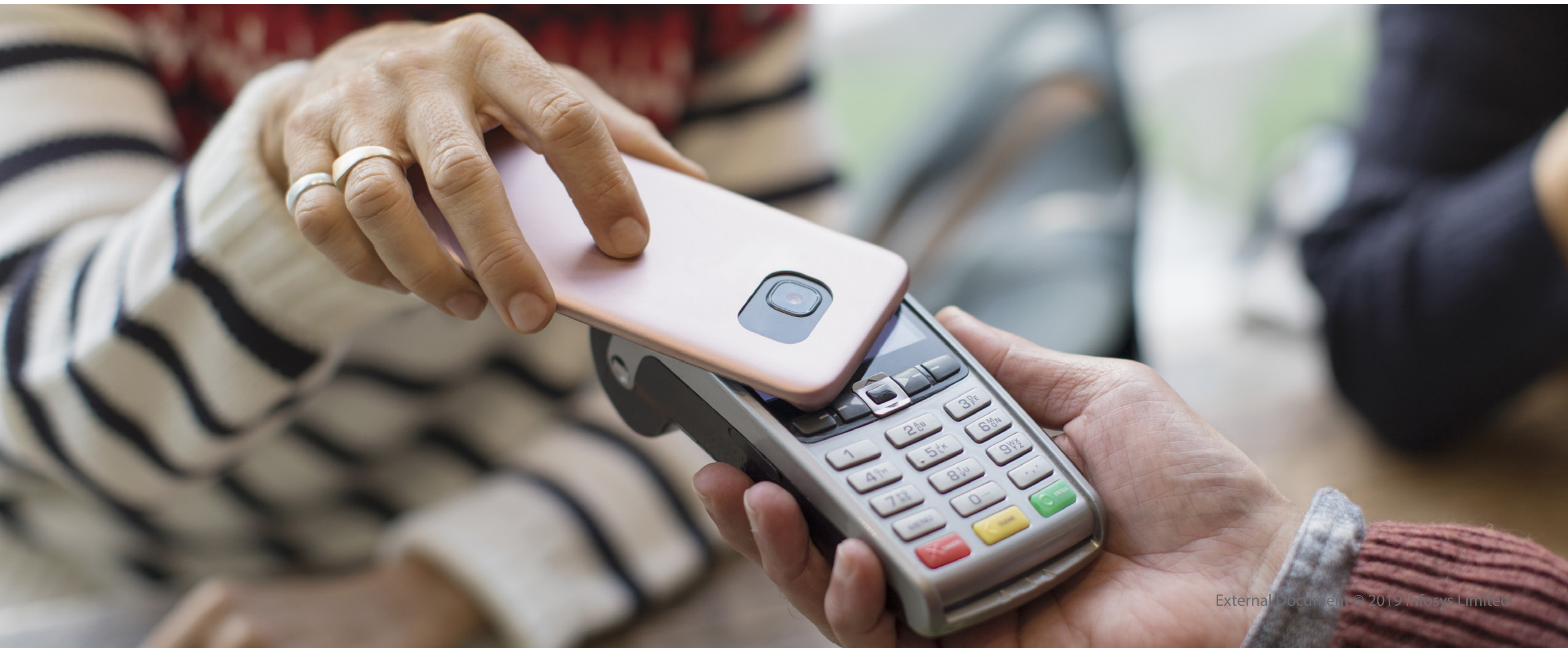
Globally the origination and adoption of digital payments solutions have resulted from various needs yet, on a broad basis the digital payments ecosystem is being driven by three broad factors – technological, customer demand and regulatory. Each of these factors include more facets:

2.1 Technology Driver

- **Mobile Device, Internet and Digital Technologies**

According to industry estimates, use of mobile devices and internet is expected to reach 3 billion worldwide, covering 65 percent of the world's adult population by the year 2020[3]. Equipped with high processing powers, substantial memory, high resolution cameras, GPS, barcode scanners and NFC based technologies, these smartphones are powerful enablers for digital payment systems. Along with it, distributed ledger technology (DLT) powering cryptocurrencies, Internet of Things (IoT) backed device automated payments, APIs, point of sale (POS), mobile wallets, tokenization is digitally integrating every industry with the payments landscape to create a seamless payments ecosystem. Some of the digital technology enablers, their benefits and examples are listed in the below table:

Technology	Benefits	Examples
Digital Ledger Technology (DLT)	Decentralized and scalable with superior business continuity, disaster recovery and risk management	**Use Case: Civic** is an e-KYC platform providing secure digital identity at reduced costs.
Cloud	Reduction of infrastructure costs, improved scalability, flexibility and improved service offerings	**Paygilant** is a cloud based service which detects fraud at the point of payment with an innovative mobile payment solution.
Application Programing Interface (API)	Improving operational and cost efficiency, better risk management for banks through risk sharing with customers and third party providers	**IATAPay** is enabling airlines better manage working capital and liquidity through near real time payment and better cost efficiencies.
Data Analytics and ML	Deeper customer insights resulting in diverse product and service offering	**MyBank** is looking at the financial data that customers and small businesses accumulated on Alipay for loan provisioning.
AI, IoT and Smart Devices	Increased ease due to device initiated payments, preemptive fraud detection, better risk management and compliance	**Fitbit Pay** allows users to pay at stores via the fitness tracker. **Amazon Dash** allows users to replenish groceries and pay via the integrated Amazon pay.



- **Entry of New Players**

Ecommerce and Technology firm led initiatives

The initial thrust in development of the digital payments ecosystem came from the technology companies and the ecommerce giants. Today GAFA (Google, Amazon, Facebook and Apple), Samsung Pay and Alipay are leading the way in the world of digital payments. These fintechs have gone beyond the early experiments and have expanded into territories which earlier fell within the jurisdiction of FIs. For example in the case of **Alipay**, created by the Chinese e-commerce giant Alibaba, to facilitate payments between buyers and sellers by overcoming barriers like lack of trust and low credit card penetration has over 900 million registered customers now.

Mobile Wallets / E-wallets

Mobile wallets are one of the biggest contributors to the digital payments market. Globally, 2.07 billion consumers are anticipated to use mobile wallets to make purchases in 2019; up nearly 30 percent from the 1.6 billion consumers recorded in 2017[4]. E-wallet proliferation has been extensive, with a projected growth rate of 15 percent CAGR and market size of approximately $2,100 billion by 2023[5].

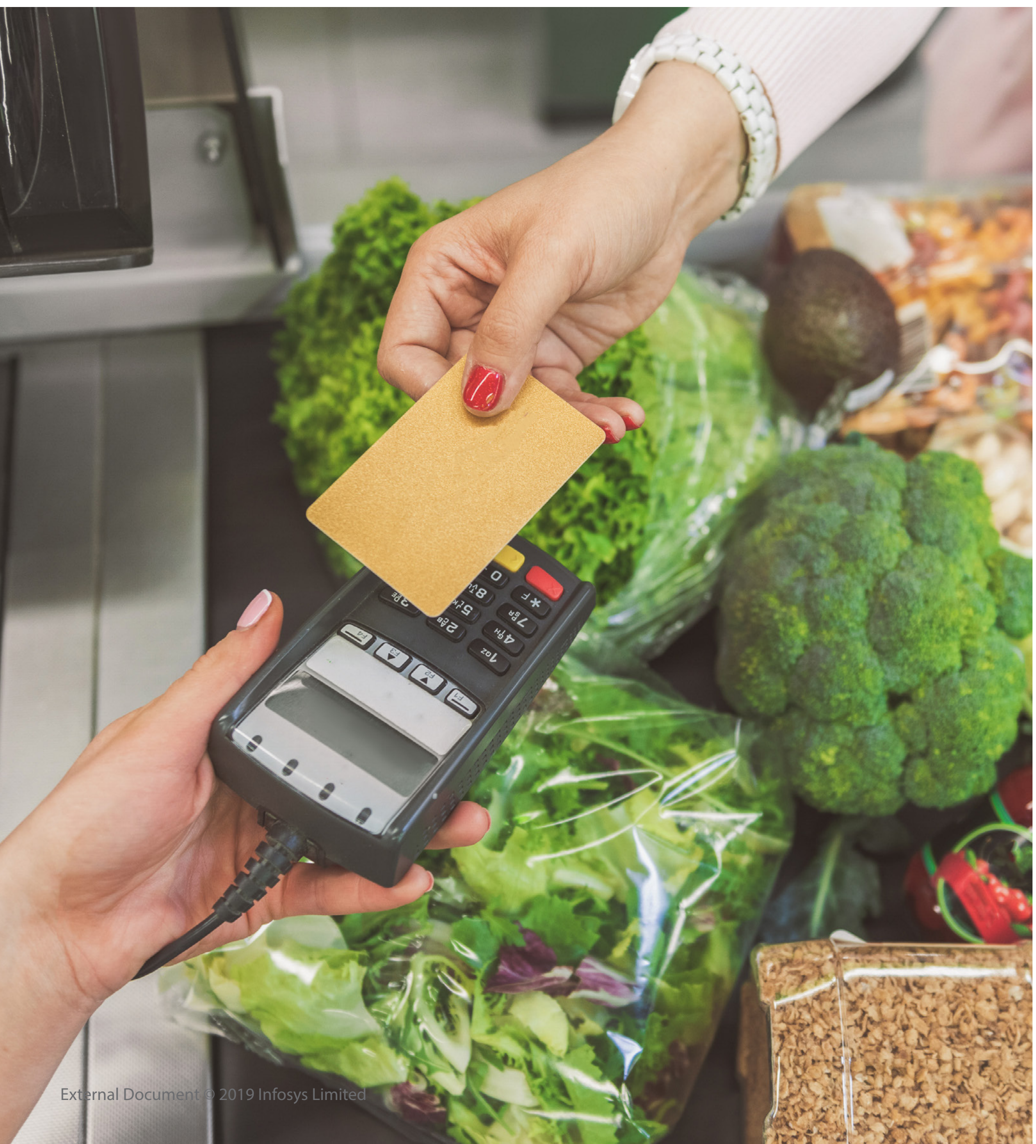
2.2 Customer Demand Driver

- **Real Time Payments**

The demand for "anytime, anywhere" payments complemented by superior smartphones, internet connectivity and non-physical interfaces is fueling the growth of real time payments systems worldwide. Players, including financial services (FS) and FinTechs are continuously exploring new technologies to facilitate seamless and faster payment processing.

- **Superior User Experience and Personalization**

Today's customers have become accustomed to a rich, convenient and highly interactive user experience offered by the likes of Google, Amazon, Facebook and Ubers of the world. And, increasingly customers are demanding a similar hassle free experience for their payment needs. As a matter of fact, user experience has become the key differentiator after price and quality in adoption of products and services. Over and above this, payment as an experience is getting highly personalized with customized rewards, loyalty programs and offers based on consumption and buying patterns.



2.3 Regulatory Drivers

Regulation in FS has always played a crucial role and yet again, it is determining the proliferation and success of digital payments globally. Although the objectives of governments are based on the economic needs of the specific country, yet they have largely taken a pro-digital payment stance. This is providing necessary stimulus for growth of new business models by encouraging players to invest and channelize their efforts in building digital payment solutions.

For instance, the PSD2 (Revised Payment Services Directive) in Europe is set to 'democratize' the banking industry by mandating FIs to provide access of customers' banking data to third parties. The objectives of PSD2 are to increase efficiency of payments across EU, increased innovation through competition, better financial products and services and to harmonize pricing. Another example of a government led initiative which has boosted digital payments is the Unified Payment Interface (UPI) in India. The prime objectives for the Government of India (GoI) to setup the UPI were universal electronic payments, a less-cash economy and financial inclusion. Another initiative worth mentioning is the New Payments Platform in Australia (NPP) which was setup with the objective of providing a national payments infrastructure for enabling consumers, businesses and government agencies to send and receive real-time domestic payments.

3. Challenges for Banks and Card Companies

3.1 Risk of commoditization

The imminent threat to incumbent banks is the risk of commoditization - threatening to remove the individual, unique characteristics and dilution of brand identity – leading to competition on the basis of price only and not on characteristics. Digital payment methods have accelerated the process of bank account switching by customers without any significant cost burden and other associated barriers.

3.2 Dwindling customer relationship and loss of customer insight

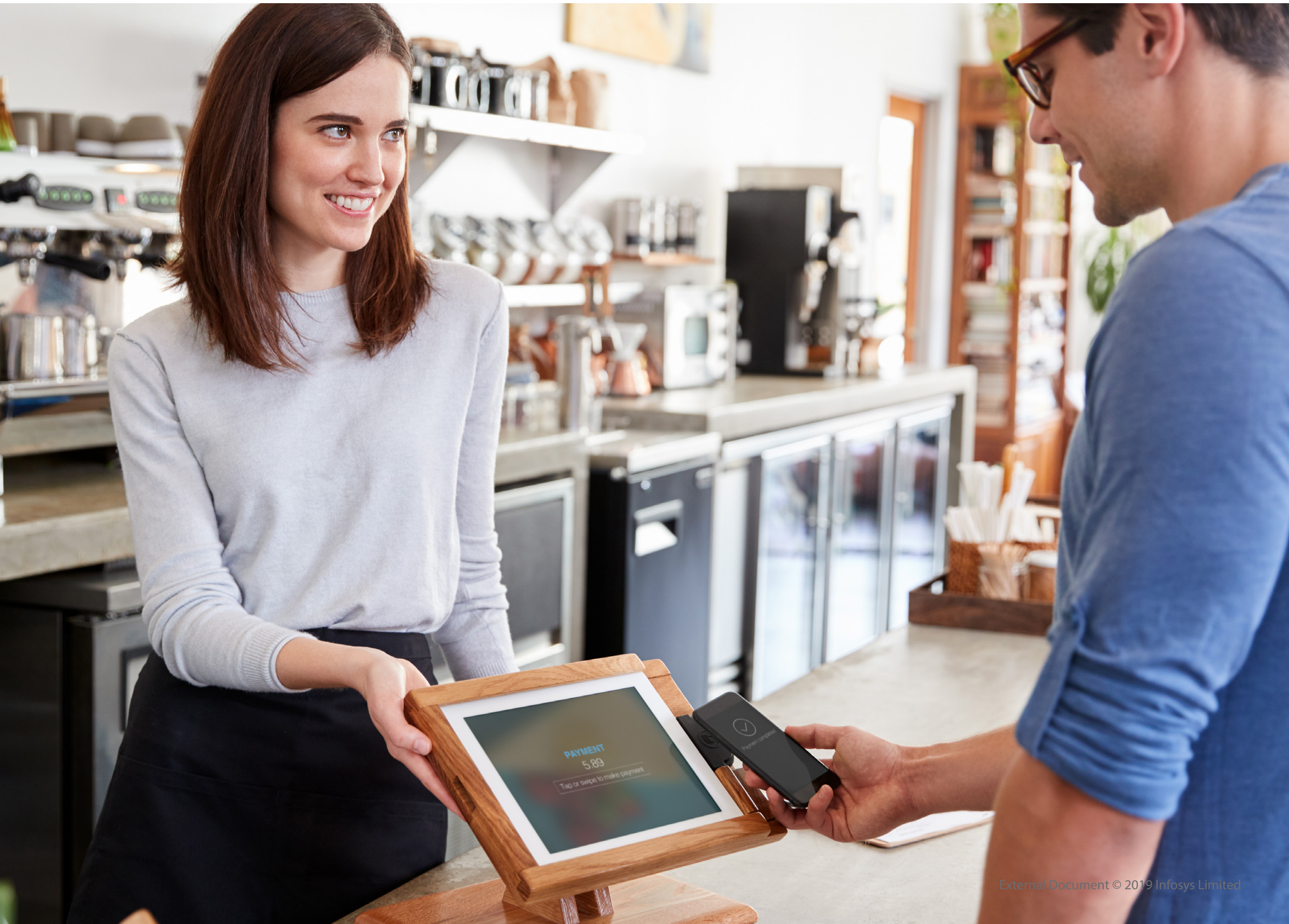
Payments processing is an important way of banks to remain in touch with its customers. With payments going digital, the banks as well as the card companies are losing direct relationship with the customers, further leading to loss of customer data and insights. This is exacerbating the risk of losing understanding of the market needs which can translate into inability to design better products, personalization of products and services and lost opportunities for cross-selling. Thus, banks and the card companies are increasingly under the threat of becoming just a utility service used by third party players.

3.3 New firms with digital as their core competency

Rise of new competition in the form of Fintech entrants, tech giants and players from other industry segments offering superior products and user experience to niche customer needs is leaving the banking incumbents far behind. Straddled between legacy systems and a need to expedite digital offerings, banks are finding it increasingly difficult to come up with a strategy to counter the attack from the fintechs.

3.4 Reduction in branch based payments volume is leading to lower revenues

Digital wallets are increasingly empowering consumers to bypass traditional bank branch networks and ATMs. A large portion of the banks' revenue pie consists of transaction charges levied against products likes – electronic transfers, cheques and demand drafts. But with the rise of P2P digital payments, there has been a decrease in demand for these services. For example, in the U.K., fintechs had already eroded around 14 percent of the bank's revenue by 2016[6].



4. How banks and card networks can thrive?

It is not a completely lost cause for banks and the cards companies. On the contrary, according to an industry report[7] banks who are ready to evolve can boost their revenues by up to 30 percent by 2022 by offering new digital based payments solutions. Incidentally, a lot of the incumbents are not only determined to protect their turf, but also are taking the fight to the new players. Like in the US, **Zelle** is digital payments network owned by a consortium of leading banks enabling individuals to electronically transfer money from their bank account to another registered user's bank account.

4.1 Create a frictionless payment experience

It is imperative for the banks and card players to reimagine the journey for a frictionless payment experience to prevent defection of customers to non-banking providers. Along with it, processes like card upgrade, best possible reward opportunities, grievance resolution which currently involve multiple interactions need to be redesigned for making the entire payment value chain seamless. **Apple Card,** launched by Apple (along with MasterCard and Goldman Sachs) is credit card which has seamlessly integrated a physical payment method with a digital payment application (Apple Pay).

4.2 Use data analytics to drive growth

- **Offer personalized rewards**

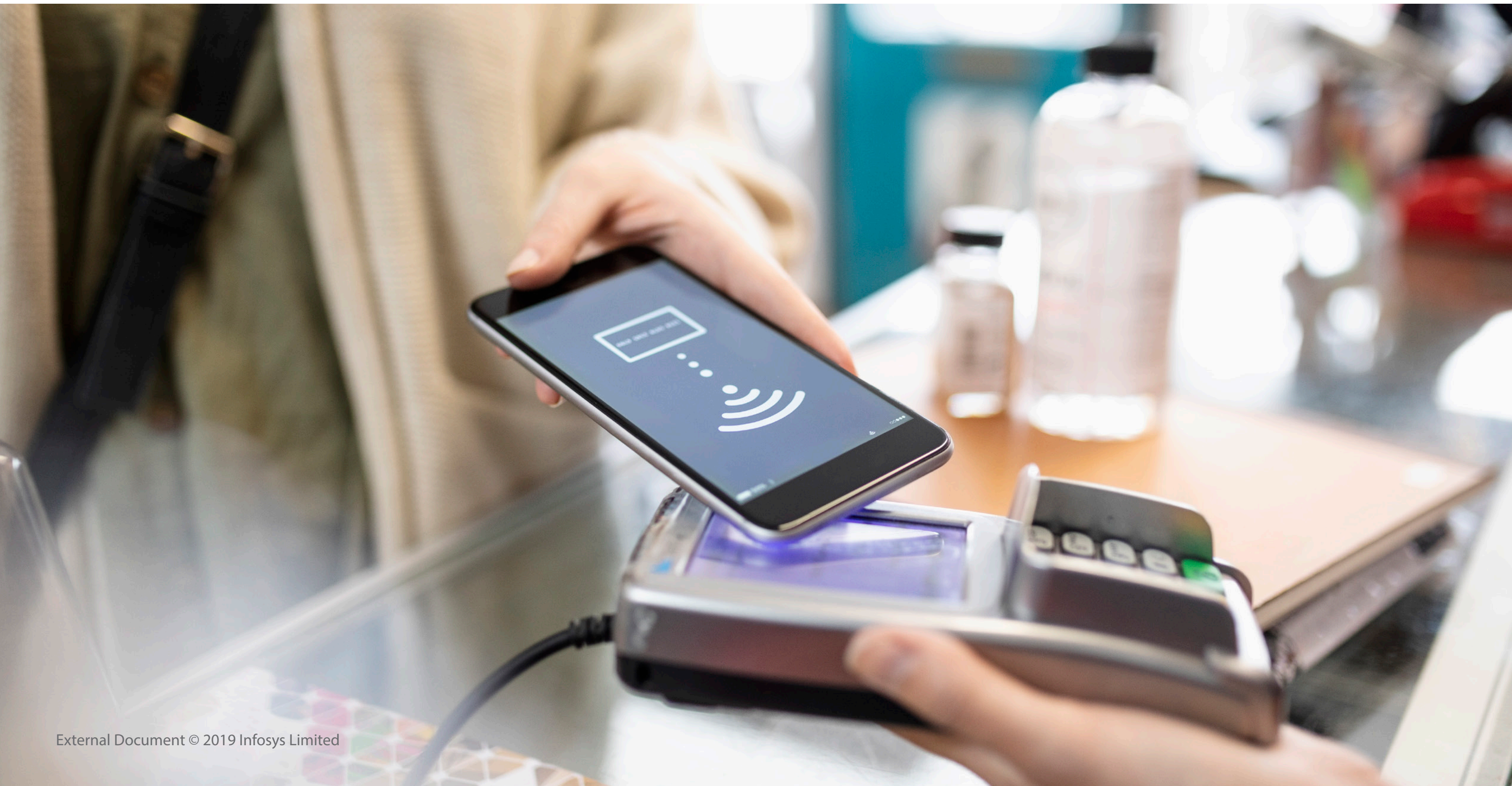
Most banks underutilize the data available to them. At a time when payment as service is getting highly personalized, it is crucial for banks (and card companies) that they use the enormous data pools to derive customer insights required to offer personalized rewards, offers and loyalty programs. In practice, this translates to tailoring even the contacts and pricing for customers on a one-to-one basis with some players having reduced their churn by 10% and boosted their revenues by 15%[8]. Like in the case of Ant financial in China, who used scenario based finance methods to bundle in-house financial services and provide personalized merchant-funded offers.

- **Monetize data to create unconventional revenues streams**

With the vast amount of data stored in the FIs' servers, there is immense scope to apply analytics to understand customer behavior and identify commercial opportunities. Furthermore, the data can be used to develop new products and services for third party providers and customers carving out differentiation. **BBVA** of Spain has created **PayStats**, an API that delivers aggregated and anonymized transaction data from POS terminals and cards to third parties. Similarly, Commonwealth Bank of Australia, provides insights about demographics and spending habits through its **Daily IQ tool**.

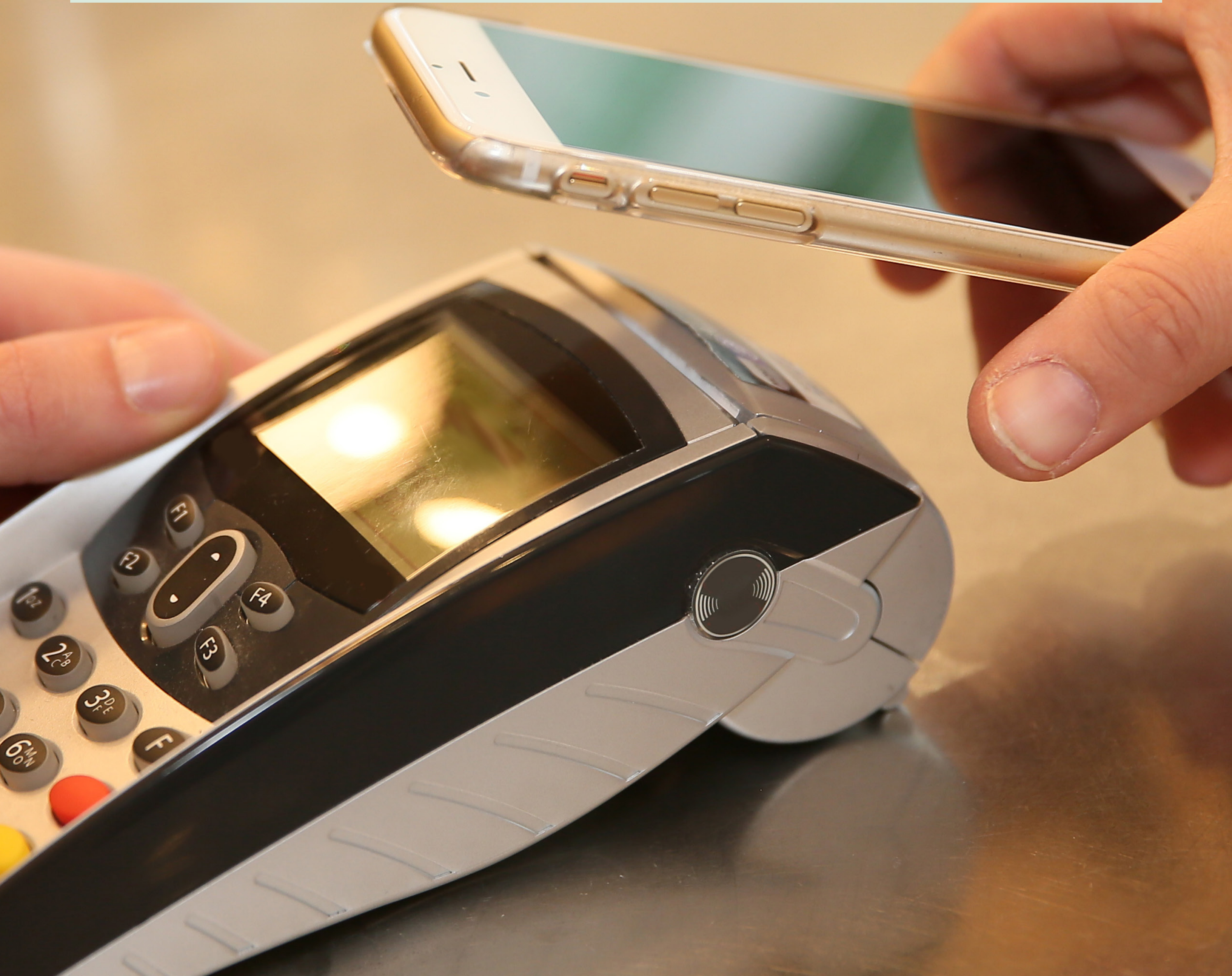
4.3 Collaborate and partner

Collaboration and partnership with other banks, card networks, merchants and other companies is the need of the hour to an ecosystem which offer the best value to customers. The work is well on the way and pragmatic approach is being initiated by a number of players in this direction with customer at their focal point. In Europe, a group of Dutch banks have collaborated to create a platform called **iDEAL** to facilitate online inter-bank transfers. This bank accounts based payment platform enables consumers to pay online through their own bank for e-commerce and m-commerce platforms. In the Nordics, **P27** is a project by Nordea which according to them "aims to establish a single pan-Nordic payment infrastructure for the 27 million inhabitants of Denmark, Sweden, Norway and Finland".



Conclusion

The payments sector is at a tipping point. Regulatory mandate coupled with the FinTech revolution has ushered in a new era in the way the world pays. At a time when the fintechs are making immense inroads into the payments market through their solutions, banks and the card networks are finding it increasingly difficult to stay relevant and risk being relegated to just being a utility player for third parties, if they are reluctant to adapt. To remain relevant, the banks and the card networks must redefine the payments experience through digital payment offerings, build personalized connections with customers with the best in class customer experience and collaborate pragmatically with other banks and fintechs to open up hitherto untapped revenue streams. Presently, the solutions are primarily focused on real-time low value high volume peer to peer payments, e-commerce and m-commerce payments and financial inclusion drives in case of developing economies. But with digital payments getting ingrained in a most economies globally, newer prospects like real-time B2B payments and cross border digital payments are fast emerging. By positioning strategically —and building on their core strengths—the incumbents can offer a competitive and compelling payment solutions and thrive in this new payments landscape.



To know more about this paper, please reach out to digital@infosys.com

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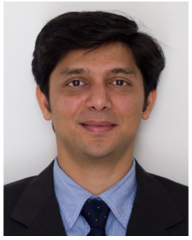
About the Authors



Rohan has over 18 years of program management and consulting experience across Financial Services, Manufacturing, Insurance and retail industries and specializes in digital customer experience and digital marketing space. He has led multiple large digital transformation programs and focusses on helping customers achieve success through better and innovative customer experiences via digital channels.

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