

Top 10 Trends in Payments in 2016

What You Need to Know



Table of Contents

Introduction	03
Trend 01: Payments Value Chain Continues to Witness Front-End Innovation	04
Trend 02: Regulators Will Increase Focus on Fostering Innovation and Encouraging Competition	06
Trend 03: Payments Processing Will Undergo Transformation for Building Next-Generation Infrastructure	08
Trend 04: Implementation of Immediate Payments Systems Will Continue to Accelerate Globally	10
Trend 05: Banks and Non-Banks Will Focus More on Applicability of Blockchain Technology to Financial Services	12
Trend 06: Hidden Payments Volume Growth Will Further Accelerate	14
Trend 07: Payment Service Providers (PSPs) Will Increase Focus on Leveraging Insights and Data to Offer Value-Added Services	16
Trend 08: B2C and Corporate Payments Will Drive Global Cross-Border Payments Volume	18
Trend 09: Increased Investments in Security and Authentication Measures to Avoid Fraud and Data Breaches	20
Trend 10: Developing Economies Are Witnessing Disruptive Innovation in Payments and Are Leapfrogging the Developed Nations	22
References	24

Introduction



The payments industry today is in a state of flux, with several technological, economic, and demographic factors cutting across the length and breadth of the value chain. The industry is witnessing rapid growth in innovations across the value chain, thus making it more fragmented. Non-banking payment service providers in the form of financial technology start-ups (Ripple, Chain) and established non-payments technology giants (Apple, Facebook, Google, Amazon) have caused disruption and disintermediation in discrete parts of banking and the payments landscape.

Growth in the adoption of digital payments, entry of non-traditional players, technological innovation, and proliferation of immediate payments are largely driving the dynamics of retail payments. Exploration of blockchain (distributed ledger) solutions are likely to emerge as a disruptive force in the industry due to the potential that they hold in terms of settlement mechanisms (including cross-border payments) and exchange of value.

This paper aims to understand and analyze the trends in the payments industry that are expected to drive the dynamics of the payments ecosystem in the near future. We have analyzed the current trends in the payments industry and identified the top 10 trends that will be covered in the following sections of this paper.



Trend 01: Payments Value Chain Continues to Witness Front-End Innovation

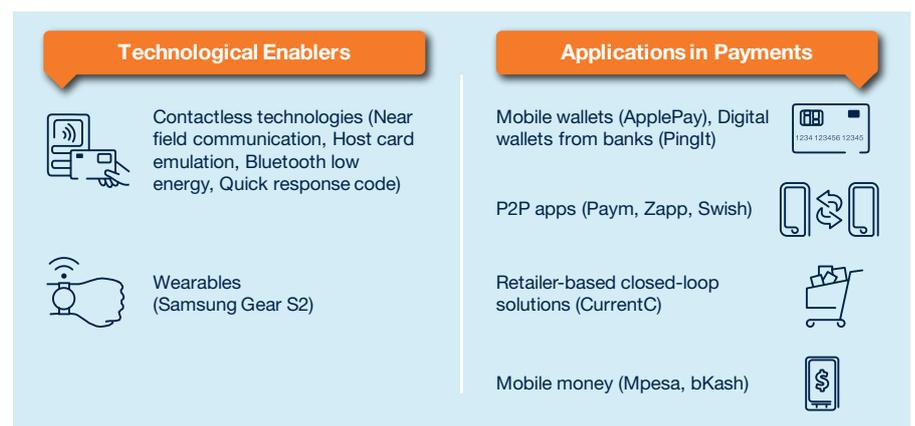
Front-End innovation in the payments industry continues to gather pace with developments on both retail and merchant fronts, with mobile and social platforms driving the demand for new services leading to multichannel commerce



Background

- Several innovations in open-loop, closed-loop, and integrated payment applications are augmenting the customer and merchant experience
- Such innovations are making transactions effortless by providing a seamless experience for customers
- Most of these innovations have altered the customer-facing processes, while they have not impacted the underlying infrastructure
- Demand for in-app payments such as Uber, where the payment mechanism is embedded within the mobile app is also on the rise and some key players including Apple Pay and Android Pay are targeting this segment

Exhibit 1: Levers of Front-End Innovation



Source: Capgemini Financial Services Analysis, 2015



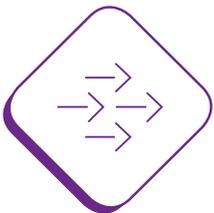
Key Drivers

- Technological advancements in hardware (mobile point of sale, contactless, near field communication (NFC), and wearables) have led to increase in payment channels for retail customers
- Adoption and proliferation of mobile payments including usage of apps and digital wallets has led to the entry of non-payment technology firms into the payments landscape



Trend Overview

- Front-End innovations are facilitating customers and merchants with commerce transactions that are independent of location and channel
- Few examples of these innovations include mobile wallets (Android Pay), closed-loop solutions (CurrentC, Starbucks), mobile merchant payment solutions (Square), and machine to machine apps (bPay, MagicBand)
- Some of these innovations are emerging as new data-intensive marketing platforms for merchants and financial institutions (FIs)
- Merchants are also looking to leverage new technologies such as Internet of Things (IoT) to leverage real-time transaction data to understand consumer behavior
- Such innovations have also catalyzed usage of the mobile payments segment, which is expected to grow at a CAGR of 23.2% through 2020 with merchandise and money transfers being the top two areas in the segment
- Peer-to-peer (P2P) money transfers, mobile money schemes, and retail shopping payments have witnessed the highest innovation levels, while corporate and business-to-business (B2B) segments are expected to catch up soon



Implications

- It is likely that current innovation in mass retail (mPayments, P2P) and merchant integration (Amazon, PayPal) will find its way to B2B and corporate sectors
- Retailers including Macy's, Tesco, and Nordstrom have started to offer integrated payment offerings and integration with social media channels
- Front-End innovation in the payments value chain may also lead to depletion of credit card usage as users migrate to other payment options
- Such innovations, due to their technology and infrastructure requirements are forcing payments firms to be agile by improving their back-end processing capabilities

Trend 02: Regulators Will Increase Focus on Fostering Innovation and Encouraging Competition

Regulators are increasingly turning their attention to facilitate innovative schemes and also creating a level playing field for banks and non-banks alike



Background

- Regulators are promoting and will continue to promote innovation through a series of initiatives, aided by competition and new technology
- Regional regulatory initiatives such as implementation of immediate payment systems and ISO 20022 are increasingly cascading to global scale

Exhibit 2: Current Scenario of Initiatives Driving Competition and Innovation

Payment Services Directive II in Europe aims to increase competition by opening up market to Third Party Providers, Payment Information Service Providers, and Account Initiation Service Providers	
	Payments Systems Regulator in the U.K. aims to open up the access of the Faster Payments Service to non-bank institutions to foster innovation in the industry
Reserve Bank of India has granted licenses to establish payments banks providing small savings accounts and remittance services to drive financial inclusion	

Source: Capgemini Financial Services Analysis, 2015



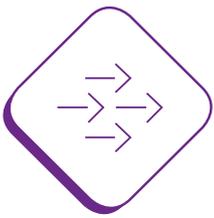
Key Drivers

- Increasing demand for customer data privacy and security
- Entry of non-traditional players is driving regulators to develop guidelines and frameworks so as to ensure a level playing field



Trend Overview

- Standardization and innovation continue to be the key focus areas of regulators while initiatives to open up the market to new players and encourage competition and innovation are also gaining momentum
- There is a shift in the regulatory agenda as financial regulators scrutinize not only the implementation of existing Key Regulatory and Industry Initiatives (KRIs), but also intensify their focus on adding value through innovation
- The European Commission's digital agenda, the remit of the Payment Systems Regulator (PSR), and the increased global focus on virtual currency regulations also demonstrate this shift in emphasis
- Some initiatives that are gaining prominence in these areas are the Payment Services Directive (PSD II) in Europe, the imminent establishment of the PSR in the U.K., and establishment of payments banks in India
- With innovations such as NFC, tokenization, and blockchain, financial regulators must ensure that there is harmony among the objectives of different regulations



Implications

- Regulators' focus on fostering innovation might lead to further fragmentation of the payments value chain
- Attention toward blockchain and/or distributed ledger technology will help third parties to develop common apps and application program interfaces (APIs) that can be used by banks and non-banks alike; such apps will enable PSPs to develop innovative products beneficial to payment service users
- Although the development of some payment services, such as virtual currencies, is nascent, financial regulators are increasing their focus on these value-added and innovative offerings

Trend 03: Payments Processing Will Undergo Transformation for Building Next-Generation Infrastructure

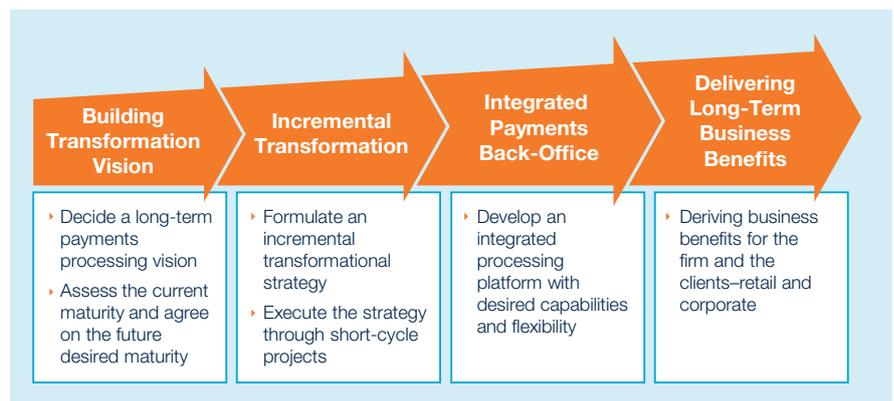
Payments processing transformation is emerging as an essential requirement for payment firms to build a scalable infrastructure in order to support next-generation payments methods



Background

- The payments industry has witnessed many front-end innovations in the recent past
- The payments processing (back-end) is currently lagging behind in innovation due to various factors such as siloed legacy systems and continued focus to comply with the increasing number of regulations
- Majority of FIs are undertaking a strategic review of payments processing systems, as increasing complexity of their internal systems is constraining them from quickly responding to external market changes

Exhibit 3: Roadmap for Payments Processing Transformation



Source: : Capgemini Financial Services Analysis, 2015; World Payments Report 2014



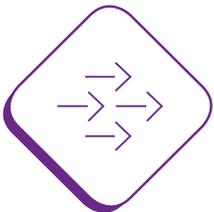
Key Drivers

- Innovations taking place at the merchant end of the payments value chain and innovations from non-banks
- Increasing customer demands for anytime/anywhere, immediate payments, and omni-channel payments



Trend Overview

- Banks and non-bank FIs are currently transforming their payments processing infrastructure by investing to create centralized payment hubs that will enable them to improve corporate payments services:
 - These payment hubs will facilitate the FIs to process all types of payment transactions and also deploy new services easily
- The next stage of transformation has also begun with the innovation by non-banks to provide an open-source, distributed, and immediate payment settlement infrastructure:
 - Non-banks such as Ripple and Earthport have created next-generation payments networks, which can be used by the financial institutions to offer new competitive payments products to their clients
- Many countries across the globe have started modernizing their payments infrastructure as part of implementing immediate payments
- Recently, many banks have started offering open APIs and are collaborating with developers and third parties to create customized apps



Implications

- Banks are expected to become more nimble to compete with fintech firms and offer personalized value-added services such as rewards, reporting, and analytics to serve their customers better
- There is an opportunity for corporations to become more involved with their payment processing partners during the initial phases of processing transformation projects and also in the design phase of new products and offerings
- While traditional payments processors have taken an incremental approach to transformation, some might benefit from robust, end-to-end project management and execution aligned to a clear business vision

Trend 04: Implementation of Immediate Payments Systems Will Continue to Accelerate Globally

Immediate payments can enable business growth across multiple industries accelerating transaction speed, reducing risk and fraud, creating new revenue sources, reducing transaction costs, and reaching new markets



Background

- Several countries across the globe are implementing immediate payments initiatives/schemes
- Currently, around 35 countries across the globe have implemented or scheduled hard launch dates for immediate payment systems and the number is expected to increase significantly in the near future
- Some recent examples of successful implementations include RealTime 24/7 in Denmark and Singapore's FAST

Exhibit 4: Drivers for Immediate Payment Systems



Source: Capgemini Financial Services Analysis, 2015



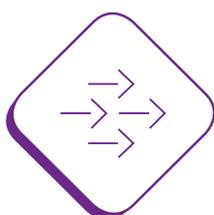
Key Drivers

- Retail customers' demand for services providing immediacy of transactions
- Regulators and central authorities also need to modernize legacy payments infrastructure across countries and meet the need for ubiquitous payments instruments



Trend Overview

- The 2015 **World Payments Report** has listed nine schemes that meet the criteria of an ideal immediate payments system including FPS in the U.K., RealTime 24/7 in Denmark, Sweden's BiR, Singapore's FAST, IMPS in India, IBPS in China, Poland's Elixir, Instant Payments System in Norway, and Nigeria's NIP
- Implementations of immediate payments systems in several countries including Australia, Canada, Spain, and the U.S. are underway; the Single Euro instant payments system in Europe is being envisaged to align all the payment instruments and create a level playing field
- Immediate payments systems can act as an enabler for business growth for both banks and non-banks by improving transaction velocity, reducing risk and fraud in the transaction processing system
- Non-bank network players such as Dwolla, Pop Money, and PayPal have entered the market with specific use cases to drive customer acquisition strategies, and have experienced significant growth as a result
- Several banks are embracing the need to develop immediate payments-based offerings to maintain their competitive advantage of being providers of holistic payment services
- Regulators are keenly focusing on areas of the utmost impact including encouraging competition, Anti-Money Laundering, Financial Action Task Force, customer protection, and clearing and settlement mechanisms



Implications

- Immediate payments can drive the growth of non-cash payments in the industry
- Overlay services such as Paym and Zapp in the U.K. can drive the growth of mobile-based digital payments across retail and corporate environments
- Banks can leverage immediate payments to strategically develop holistic payments solutions spanning the value chain to differentiate themselves from non-banks

Trend 05: Banks and Non-Banks Will Focus More on Applicability of Blockchain Technology to Financial Services

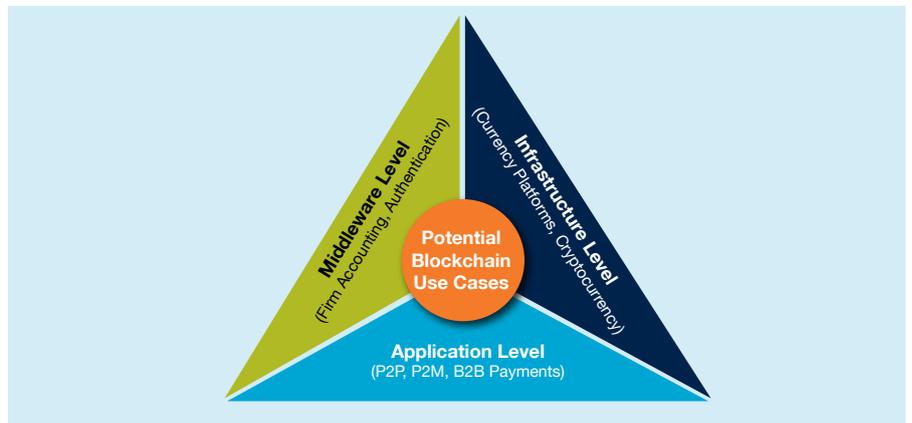
The distributed ledger feature of the technology continues to be the point of interest for financial services firms, as it is expected to provide solutions for several payments infrastructure-related issues



Background

- Blockchain, which is the underlying technology on which Bitcoin is based, has evolved from being a mere 'rails for digital currency' to becoming a vehicle for smart contracts and pegged services in the financial services domain
- This technology is expected to assume the role of a financial middleman by significantly reducing the execution timeframe of a transaction and making it more transparent and secure for the involved counterparts

Exhibit 5: Potential Use Cases of Blockchain



Source: Capgemini Financial Services Analysis, 2015



Key Drivers

- Increasing willingness by banks to explore the potential use cases of the technology
- Potential benefits of decentralized applications across the different parts of the payments value chain
- Need for payment system optimization leveraging underlying distributed ledger technology



Trend Overview

- Transparency, decentralized structure, and multi-signature are the key features of blockchain technology:
 - In terms of transparency, all network transactions can be traced by examining blockchain
 - Open ledger and collective verification of the transactions implies that each member of the network is aware of the processed transactions
 - Blockchain's decentralized structure reduces the probability of transaction execution failure
- Leading banks in the industry such as Fidor in Germany have announced collaboration with technology firms such as Ripple to use the latter's blockchain ledger system to further their international trade finance and subsidiary payments
- At the same time, other leading banks such as Citibank are experimenting with the technology internally to develop a digital payments platform that can be potentially scaled to deliver cross-border payments
- Cross-border payments is another example where the technology can serve to become a centralized clearing and settlement agent across geographies (unlike the current scenario of regional correspondent banks on both sides of the transaction)
- Multiple stakeholder interest (banks, non-banks, and fintech firms) in Blockchain technology is driven by its potential use cases across all technology layers in the payments industry



Implications

- Industry leaders will have to work with regulators to ensure financial integrity and consumer protection for solutions based on blockchain technology
- To reap real benefits from this technology, stakeholders (including regulators) should take initiatives to form a set of common standards, which would facilitate interoperability among the existing systems, as well
- Blockchain has attracted interest from multiple stakeholders and as a technology has the potential to alter the industry landscape by becoming the platform for value exchange

Trend 06: Hidden Payments Volume Growth Will Further Accelerate

In the 2015 World Payments Report, we estimated the hidden payments transaction volume in 2014 to be in the range of USD 24.5–40.9 billion, with the upper end of the range being as high as 10% of the total estimated non-cash transactions in 2014



Background

- The payments industry is witnessing the entry of non-traditional payment mechanisms, many of which are offered by non-banking players
- Most of these players are not subject to the same regulations as some traditional providers are and thus are not obliged to report payment transactions
- As a result, transactions often go unreported, and consequently estimation of hidden payments volume is difficult

Key Drivers

- Gaps in value propositions have emerged because banks, constrained by legacy infrastructure, find it more challenging to develop new propositions
- Customer need for faster and convenient payments transactions, which is being met by non-traditional providers who are leveraging advances in technology to develop new products and services
- Lack of access to traditional payment methods, which is more predominant in developing countries
- Current softer regulations on non-banks that are governed by consumer protection are encouraging these players to penetrate further into the market



Exhibit 6: Hidden Payments Market Estimation

Category	Transaction Volumes (Billion)	
	Lower Range	Higher Range
Closed Loop Cards/ Mobile Apps	15.1	22.6
Digital Wallets	8.2	16.5
Mobile Money	1.1	1.8
Virtual Currencies	0.03	0.04
Total	24.5	40.9
Hidden Market as Percentage of Estimated Non-Cash Transaction Volumes in 2014	6.3%	10.5%

Source: Capgemini Financial Services Analysis, 2015; World Payments Report 2015



Trend Overview

The rising volume of hidden payments is mainly driven by four key categories of payments instruments¹:

Closed-loop cards and mobile apps:

- Transaction volume of closed-loop cards and mobile apps are estimated to be in the range of 15.1 billion to 22.6 billion in 2014, followed by mobile wallets at between 8.2 and 16.5 billion
- Examples in this category include private-label cards and mobile apps such as the Starbucks mobile app

Digital wallets (non-banks):

- Complemented by the increasing acceptance and popularity of mobile payments, digital wallets are likely to become more widely used and their market share will grow accordingly
- These are gaining prominence among consumers, as they provide a flexible and convenient way to transfer money (e.g., PayPal and Alipay)

Mobile money (non-banks):

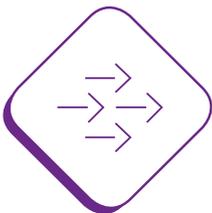
- Mobile money mechanisms have enabled people without access to banking facilities to make financial transactions using their mobile phones
- In Kenya, for example, the number of active users of M-Pesa was 13.9 million at March 31, 2015²

Virtual currencies:

- While virtual currencies are still a small portion of the market, they have gained a great deal of media attention and are likely to continue to grow as more merchants and retailers accept them
- Bitcoin is arguably the most popular digital currency and companies including Dell and Expedia now accept bitcoins for payment

Implications

- With the increasing acceptance of non-traditional payments mechanisms by consumers and businesses, the hidden payments market will become increasingly significant in the future
- Due to customer demand for faster and more convenient payments services, the hidden payments market is gaining momentum, because for some transactions it better fulfills requirements than traditional payment methods
- The growth of the hidden payments market is expected to pose concerns regarding data privacy and information security for all stakeholders in the payments industry
- Hidden payments are expected to pose challenges to regulators in fighting money laundering and tax evasion



¹ In the absence of an industry standard classification, we have considered four main categories, but there are other sources of hidden payments

² Safaricom financial results

Trend 07: Payment Service Providers (PSPs) Will Increase Focus on Leveraging Insights and Data to Offer Value-Added Services

Payment service providers are looking at ways to leverage data analytics and predictive modeling to drive their value-added services initiatives for retail and corporate customers



Background

- Reducing costs of data mining and warehousing is creating opportunities for payment service providers to provide value-added services to their customers
- Customers are also showing interest in value-added services such as rewards redemption and special deals as membership in U.S. loyalty programs increased by 26% from 2013 to 2015 to reach over 3 billion for the first time³
- On the corporate payments front, firms such as Nvoicepay are adding tiers of value-added services (sourcing, inventory management, and customer acquisition) on their cloud-based platforms

Exhibit 7: Payments Value-Added Services Paradigms



Source: Capgemini Financial Services Analysis, 2015

³ 'U.S. Customer Loyalty Program Memberships Top 3 Billion For First Time, 2015 Colloquy Census Shows', February 9, 2015



Key Drivers

- PSPs' aim of driving customer loyalty by providing customized products and services
- Need for PSPs to increase convenience of initiating payments transaction for retail customers
- Ability to provide transaction aggregation services to corporations (posting the transactions to the firm's enterprise resource planning platform)

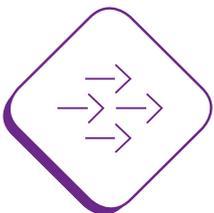
Trend Overview

- As the digitization of payments increases across the globe, issuers and acquirers are looking for ways to enhance their existing value-added services to the end customers:
 - Some examples of such services are account aggregation on digital interfaces along with segmented customer offerings based on their transaction behavior
- The retail payments domain has also witnessed the rise of merchant-funded loyalty programs, which are based on the prospective client segments' buying behavior:
 - For example, a large retailer can offer an exclusive sale preview for its merchandise to high net worth individuals who are its clients
- Though value added service offerings have been the hallmark of the customer acquisition strategy for the retail customers, payment service providers are aligning their value-added services with the corporate payments, as well:
 - This trend is expected to evolve further as Straight Through Processing (STP) is expected to become the norm for corporate payments and non-banks are coming up with solutions that can initiate a corporate payment online, post the payment instructions, and integrate the transaction with the enterprise solution



Implications

- In the coming years, payment service providers will move beyond the traditional setup and drive innovation in the corporate payments domain, where the available transaction data will be fed to other areas of the value chain such as enterprise vendor management and supplier services
- For retail payments, banks and non-banks will continue to compete to make the customer stickiness more rewarding by developing offerings based on intensive data analytics



Trend 08: B2C and Corporate Payments Will Drive Global Cross-Border Payments Volume

Financial institutions are focusing to identify ways to harness the potential of B2C and corporate payments in order to augment their revenues from cross-border fund transfers



Background

- Cross-Border payments represent a significant payments market and banks and non-banks are increasingly competing to gain market share
- Such payments are mainly dominated by the corporate sector making payments for the global trade of goods and services, international remittances, and business-to-consumer (B2C) transactions
- The non-banks that are using their proprietary networks have captured significant market share

Exhibit 8: Segments of Cross-Border Payments



Source: Capgemini Financial Services Analysis, 2015



Key Drivers

- High penetration of mobile banking and innovative mobile financial service offerings in the regions of Africa and Latin America have led to a surge of firms offering low-value cross-border payments by offering mobile virtual network services



- Consumers are increasingly using eCommerce and mCommerce services for their overseas purchases
- The rising volume of remittances are generating a demand for fast, efficient, secure, and transparent cross-border payment solutions

Trend Overview

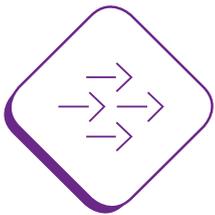
Cross-Border eCommerce transactions can be classified under the following categories:

Cross-Border Credit Card Payments:

- Credit cards are still the preferred mode of payments for cross-border transactions due to availability, convenience, and ease of use
- In Q3 2015, Visa's international transaction revenue (which includes cross-border transaction processing and currency conversion activities) grew by 21% to \$1 billion⁴

International Remittances:

- Globally, international remittances are expected to reach \$588 billion in 2015, a growth of 1.3% over 2014⁵



Implications

- While correspondent banking continues to remain the preferred model for high-value cross-border payments, low-value payments for small and medium-sized enterprises (SME) and business-to-person (B2P) segments are likely to witness higher levels of innovation
- In order to boost market share in the cross-border payments space, banks are expected to take advantage of new technologies and real-time payments infrastructures to customize their offerings for each segment
- Regulators need to focus on underlying infrastructure and security requirements, as increasing numbers of players such as Ripple enter with their innovative service offerings
- It is expected that the cross-border payments industry might witness an increased number of acquisitions and partnerships (such as Amazon's partnership with Payoneer and Coinify's partnership with Ingenico)

⁴ "Visa Had \$18 Billion Worth of Processed Transactions", Robert Karr, Yahoo Finance, September 4, 2015

⁵ "Remittances projected to rise 2.5% in 2015: World Bank", Press Trust of India, Business-Standard, October 24, 2015

Trend 09: Increased Investments in Security and Authentication Measures to Avoid Fraud and Data Breaches

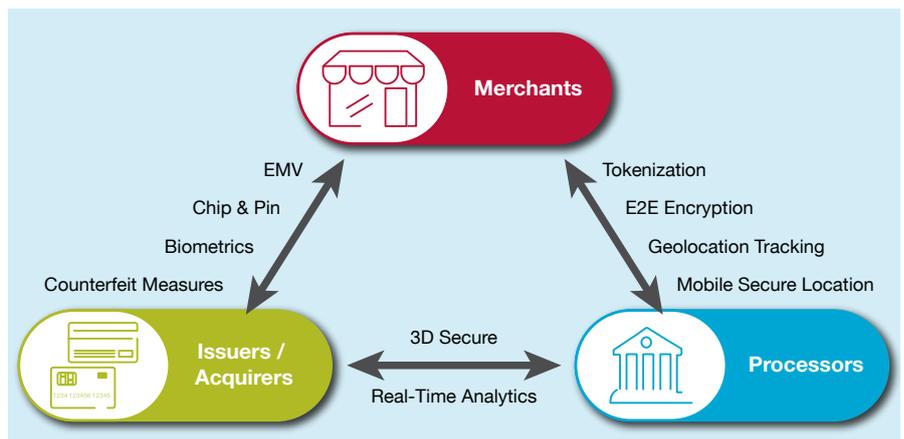
Security and authentication measures such as the Chip Authentication Program, 3D Secure, tokenization, and biometrics are gaining significant attention



Background

- Total card fraud losses incurred by banks and merchants worldwide reached USD 16.3 billion in 2014⁶
- Card-Not-Present (CNP) fraud is emerging as a top challenge for the payments fraternity and it is expected that by 2016, CNP transactions will amount to more than \$2 trillion, and merchants will lose more than \$5 billion from this amount due to fraud⁷
- Costs of data breaches also have increased considerably, with the total average cost to involved payments firms increasing from USD 5.4 million to USD 5.9 million⁸

Exhibit 9: Data Security and Fraud Mitigation Solutions



Source: Capgemini Financial Services Analysis, 2015

⁶ 'Global Card Fraud Losses Reach \$16.31 Billion — Will Exceed \$35 Billion in 2020', Nilson Report, August 4, 2015

⁷ CEB TowerGroup estimates

⁸ 'Ponemon Institute Releases 2014 Cost of Data Breach: Global Analysis', May 5, 2014



Key Drivers

- Migration of card payments from magnetic stripes to EMV Chip and PIN is witnessing a simultaneous shift in fraudulent activity from the card presented to the CNP category
- Increased adoption of online and mobile channels is providing more opportunity for perpetrators of fraud
- Demand for leveraging advanced technological solutions by merchants to fight fraud is increasing
- Demand for real-time analytics to identify transaction routing and detect frauds is increasing

Trend Overview

- To avoid data fraud and breach, payments firms and merchants are adopting multiple solutions, each of which has its own benefits and implications depending upon the size of firm, volume of transactions and other factors:
 - PCI-DSS compliance is helping merchants decrease the rate of data fraud attacks and card data breaches
 - Implementation of EMV and its adoption globally (Canada, Europe, EMEA, and recently in the U.S.) is aimed at achieving minimal fraud incidence, especially in the card-present scenarios
 - While chip and pin authentication is improving the security of card-present transactions, solutions such as 3D Secure are offering additional security features for card-not-present transactions (for example Verified by Visa and MasterCard Secure Code programs)
 - End-to-end encryption and tokenization processes are also being leveraged to enhance data security during transmission of sensitive transaction data (for example both Visa and MasterCard have launched tokenization offerings)
 - Technologies such as Geolocation tracking and mobile secure location are being used by payment processors and merchants to fight fraud
 - Firms are testing various biometric features to enhance authentication measures (for example, MasterCard and Alibaba are testing facial recognition technology to authorize transactions)
 - Apart from the above solutions, real-time analytics including intelligence from social networking sites and third-party vendors that help understand the customer behavior are also assuming significance



Implications

- As fraud levels have been on the rise, there is an increased emphasis on compliance to PCI-DSS standards apart from other data security and authentication measures
- As mobile-based online transactions continue to grow, emphasis on fighting CNP fraud by merchants is also expected to be higher
- Moreover, introduction of initiatives such as EMV, are leading to greater attention toward Internet, Mail Order, and Telephone Order related fraud and data breaches
- While there are potentially great benefits to the security that could be offered by the biometrics field, the risks should be evaluated before making the technology a mainstream security measure



Trend 10: Developing Economies are Witnessing Disruptive Innovation in Payments and are Leapfrogging the Developed Nations

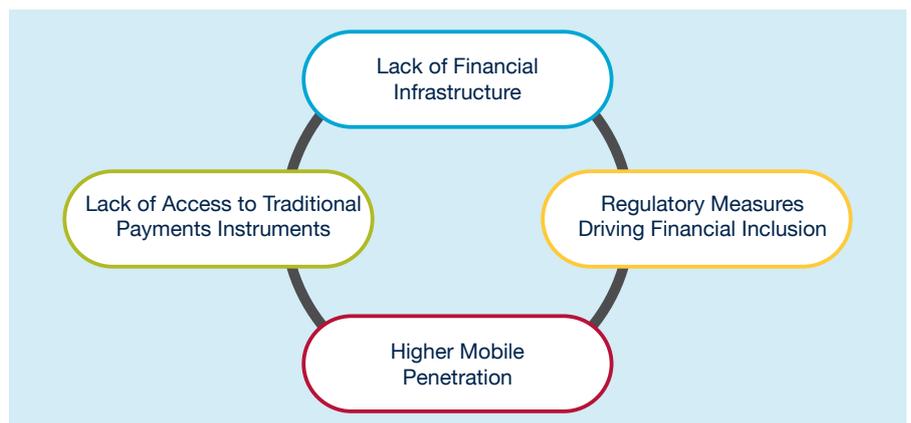
Regulatory and industry initiatives in developing economies such as Africa, Bangladesh, India, and the Philippines are driving newer payment innovation models



Background

- In the recent past, the mobile financial services segment has witnessed disruptive growth in emerging economies
- Such services consist of a wide range of offerings such as current savings accounts, mobile banking services, and mobile money
- Mobile money has garnered the most attention in Africa (initially Kenya and subsequently other countries such as Uganda)
- Other countries including Bangladesh, India, and the Philippines have also witnessed proliferation of mobile-based financial services in P2P funds transfers and lending

Exhibit 10: Drivers of Payments Innovation in Developing Economies



Source: Capgemini Financial Services Analysis, 2015



Key Drivers

- Regulatory and central banking authorities are formulating financial inclusion measures to include the unbanked into the monetary system
- Lack of a mature financial infrastructure is contributing to development of innovative initiatives
- Higher mobile penetration is driving further proliferation of innovative payments services

Trend Overview

A few examples of payments innovations in developing economies include:

Africa (M-Pesa):

The mobile payments system launched (Safaricom in partnership with Vodafone) initially in Kenya currently has 19.3 million registered users, of which 12.2 million are active users

Africa (mobile financial services):

Several overlay services such as health insurance have been initiated to better serve the unbanked in sub-Saharan Africa

Bangladesh (bKash):

The scheme was setup with an objective of ensuring access to a range of financial services for the people (especially to the low-income masses) of Bangladesh

India (Payments Banks):

In August 2015, Reserve Bank of India gave in-principle licenses to 11 entities to launch payment banks:

- The objective is to provide small savings accounts and payments/remittance services to the migrant labor workforce, low-income households, small businesses, and other unorganized sector entities



Implications

- Innovations in the developing markets should be closely analyzed by the banks and startups in the developed economies as success of these experiments can potentially lead to disruption in the developed economies as well
- Crowdfunding and P2P lending platforms are leading examples of how emerging countries have adopted the concepts and replicated the models from developed nations
- Alternative use cases over the base layer of mobile financial services and mobile money provide ample opportunity for new players to enter the market
- Since several players are entering with new and innovative offerings, regulators are expected to play a dominant role in supervising the resulting segmentation of the value chain



References

1. **World Payments Report**, 2015, 2014, 2013, Capgemini and RBS, accessed December 2015 at <https://www.worldpaymentsreport.com/download>
2. 'Top Trends in Retail Payments: A Year in Review, 2015 Edition', Zilvinas Bareisis, Celent, January 26, 2015, accessed December 2015 at <http://www.celent.com/reports/top-trends-retail-payments-year-review-2015-edition>
3. 'Costs and Benefits of Building Faster Payment Systems', Claire Greene, Marc Rysman, Scott Schuh, and Oz Shy, Federal Reserve Bank of Boston, February 2015, accessed December 2015 at Costs and Benefits of Building Faster Payment Systems
4. 'Bitcoin for Bankers?', Deborah Baxley, LinkedIn, August 13, 2015, accessed December 2015 at <https://www.linkedin.com/pulse/bitcoin-bankers-deborah-baxley>
5. 'Coface Launches an Innovative Offering for SMEs: Easyliner, a Simple On-line Solution to Protect against Unpaid Invoices', March 27, 2014, coface.com accessed December 2015 at <http://www.coface.com/News-Publications/News/Coface-launches-an-innovative-offering-for-SMEs-EasyLiner-a-simple-on-line-solution-to-protect-against-unpaid-invoices>
6. 'Blockchain Investment By Financial Institutions', Alex Liu, Ripple, November 5, 2015, accessed December 2015 at <https://ripple.com/blog/blockchain-investment-by-financial-institutions-in-one-chart/>
7. 'Consensus 2015, The Day in Quotes', Yessi Bello Perez, CoinDesk, September 16, 2015, accessed December 2015 at <http://www.coindesk.com/consensus-2015-the-day-in-quotes/>
8. 'Finance industry will invest more than \$1bn in blockchain in the next two years', Clare McDonald, Computer Weekly, 04 November 2015, accessed December 2015 at <http://www.computerweekly.com/news/4500256760/Finance-industry-will-invest-more-than-1bn-in-blockchain-in-the-next-two-years>
9. 'Payment Processing Transformation – How to Support Customer Facing Innovations and Adapt to Increasing Regulatory Demands', Deborah Baxley, Jeroen Holscher, Capgemini, Bank Administration Institute, March 2–4 2015, accessed December 2015 at <https://www.bai.org/paymentsconnect/docs/default-source/2015-payments-connect-presentations/transforming-payments-processing-to-support-customer-facing-innovations-and-adapt-to-increasing-regulatory-demands.pdf?sfvrsn=2>

10. 'Ripple well-placed for global adoption', IT-Online, August 2015, accessed December 2015 at <http://it-online.co.za/2015/08/13/ripple-well-placed-for-global-adoption/>
11. 'When Payment Processing Becomes A Commodity', Christoffer O. Hernaes, Techcrunch, August 8, 2014, accessed December 2015 at <http://techcrunch.com/2014/08/08/what-happens-when-payment-processing-becomes-a-commodity/>
12. 'Why Bitcoin may herald a new era in finance', The Economist, accessed December 2015 at <http://www.economistinsights.com/technology-innovation/analysis/money-no-middleman/tab/1>
13. 'Visa Had \$18 Billion Worth of Processed Transactions', Robert Karr, Market Realist, September 2, 2015, accessed December 2015 at <http://marketrealist.com/2015/09/visa-18-billion-worth-processed-transactions/>
14. 'Modest trade recovery to continue in 2015 and 2016 following three years of weak expansion', World Trade Organization, 14 April 2015, accessed December 2015 at https://www.wto.org/english/news_e/pres15_e/pr739_e.htm
15. 'Card-Not-Present Fraud: A Primer on Trends and Authentication Processes', Smart Card Alliance, February 2014, accessed December 2015 at <http://www.smartcardalliance.org/resources/pdf/CNP-WP-012414.pdf>
16. 'Card Fraud Report – 2015', NCR and Alaric, January 2015, accessed December 2015 at http://www.paymentscardsandmobile.com/wp-content/uploads/2015/03/PCM_Alarc_Fraud-Report_2015.pdf
17. 'Are biometrics the next big thing in payments', Brian Sadowski, Mobile Payments Today, September 3, 2015, accessed December 2015 at <http://www.mobilepaymentstoday.com/articles/are-biometrics-the-next-big-thing-in-payments/>
18. 'Citibank testing cryptocurrency as a digital payment platform', Vivek Pai, MediaNama, July 2015, accessed December 2015 at <http://www.medianama.com/2015/07/223-citibank-cryptocurrency-citicoi/>
19. 'The True Cost of Data Breaches in the Payments Industry', Smart Card Alliance, March 2015, accessed December 2015 at <http://www.emv-connection.com/downloads/2015/03/The-Cost-of-Data-Breaches.pdf>

About the Authors

Srividya Manchiraju is a Consultant with the Market Intelligence team in Capgemini Financial Services with over three years of experience specializing in banking and payments.

Ganesh Vudayagiri is a Senior Consultant with the Market Intelligence team in Capgemini Financial Services with over five years of experience specializing in banking and payments.

Gaurav Garg is a Senior Consultant with the Market Intelligence team in Capgemini Financial Services with over seven years of experience specializing in banking and payments.

The authors would like to thank **Christophe Vergne, Deborah Baxley, Jeroen Holscher, Venugopal Pappu Subrahmanya Venkata, William Sullivan, David Wilson,** and **Mahesh Bhattad** from Capgemini for their contributions to this paper.



Learn more about us at: www.capgemini.com/payments
or email: payments@capgemini.com



About Capgemini

Now with 180,000 people in over 40 countries, Capgemini is one of the world's foremost providers of consulting, technology and outsourcing services. The Group reported 2014 global revenues of EUR 10.573 billion.

Together with its clients, Capgemini creates and delivers business, technology and digital solutions that fit their needs, enabling them to achieve innovation and competitiveness.

A deeply multicultural organization, Capgemini has developed its own way of working, the Collaborative Business Experience™, and draws on Rightshore®, its worldwide delivery model.

Learn more about us at
www.capgemini.com

All products or company names mentioned in this document are trademarks or registered trademarks of their respective owners.
Rightshore is a registered trademark of Capgemini.