Recent Developments in Retail Payments

Global Trends in Retail Payments

Harish Natarajan
Payment Systems Development Group

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Developing a comprehensive national retail payments strategy

Provides guidance on how to develop and implement a comprehensive strategic approach in retail payments reform and modernization initiatives

- Objective 1: Overall safety and efficiency
- Objective 2: Affordability and ease-of-access to payment instruments and services
- Objective 3: Availability of an efficient infrastructure to process payment instruments
- Objective 4: Availability of a socially optimal mix of payment instruments
7 Global Trends in Retail Payments
Based on a research conducted by Innopay on behalf of the World Bank

1. The mobile revolution
2. Identity at the heart of payments
3. Unbundling of payment and authorization
4. Payment contexts are becoming real time
5. Person-to-person payments digitizing
6. Emergence of continents on the web
7. Big data
1. The mobile revolution

- In developing economies, the mobile phone provides the “connection” that is indispensable for any form of cashless payments.

- In developed countries, smart phones enable new shopping contexts and fuel the movement towards a real time economy.

Source: ITU, 2014 (* est., figures per 100 inhabitants).
1. The mobile revolution

The mobile phone in the card payment process

- An NFC enabled phone replaces the payment card and works in combination with an NFC compatible Point of Sale terminal
- To use the smart phone as a low cost payment terminal, accepting card payments

Mobile phones used for E-Money (Mobile Money)

- Record of funds is stored on the mobile phone or a central computer system, and which can be drawn down through specific payment instructions to be issued from the bearers’ mobile phone

Mobile phones used for electronic funds transfer initiation

- Solutions that build further on payment traditional instruments, but where the initiation and authorization are done through (smart) phones
- Existing payment practices are adapted to fit in new contexts, primarily because of limited usability of small screens
1. The mobile revolution – illustrative examples

Apple Pay: USA

Square Reader: USA, Canada, Japan

Loop: USA

M-PESA: Kenya, Tanzania, South Africa and Afghanistan

Digicash: Luxembourg
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2. Identity at the heart of payments

- Trust and security are extremely important for a well-functioning payment infrastructure
- In physical contexts, the agreement, the payment and the delivery happen all at the same time
- In a remote context, these three processes can take place in three different moments in time and without face-to-face interaction between payer and payee
2. Identity at the heart of payments

• An entire new industry is developing that enables consumers to organize controlled access to parts of their digital identity and enable relying parties to know, with a certain level of assurance, who they are dealing with

• The more attributes (pieces of personal information, such as age, gender or financial information) the services provide, the more value the service generates. The Level of Assurance (LOA) concerns the trustworthiness of single attributes

• Because the solutions that are needed in this new service domain share characteristics with those developed for electronic payments, payment industry players (e.g. banks, card schemes) are expanding their services towards digital identity. For this purpose, these players can draw on the information they have from their clients and, very importantly, on the authentication infrastructure that is often in place and that is used to authorize payments

• The other way around, identity services providers look at payments as one type of transactions that they can service
2. Identity at the heart of payments – illustrative examples

- Aadhaar: India
- Bank ID: Sweden
- Fido: Worldspread
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3. Unbundling of payment and authorization

- No matter the type of context, all retail payments consist of two components: the **authentication process** (‘verifying whether the person initiating the payment is who he says he is’) and the **transfer of funds**. Retail payments are changing as the online and mobile contexts emerged.

- Today new contexts, new forms of authentication evolve, that are less tightly coupled to a payment transaction.

- Originally, online shopping contexts were structured in the same way as offline. Consumers shop first and then, at the moment of paying, identify and authenticate themselves. The payment and the authentication processes are most of the times executed simultaneously and carried out by the same provider. **To cater for online contexts, dedicated online authentication methods have been created to authorize payments**.

- The result is that ‘authentication’ and ‘payment’ are now becoming separate. Innovative models of authentication are introduced that are independent from the actual payment. The application of authentication services can be far broader than payments.
3. Unbundling of payment and authorization – illustrative examples

PayPal: Mostly used in Europe and the USA
Paym: UK
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4. Payment contexts are becoming real time

- For retail contexts, the payment is as fast as the slowest link in the transaction flows. In most cases, the actual transfer of funds is not real time.

- To ensure that both parties do not have to wait until the funds are settled to follow-up on the transaction, the payment is ‘made real time’ by additional messaging, in parallel of the transfer of funds. In this way, these payment instruments provide adequate service in real time contexts.

- Real time infrastructure would reduce the need for parallel interoperable messaging, as the information can be sent along with the funds.
4. Payment contexts are becoming real time - illustrative examples

- MyBank: Italy, Luxembourg, France
- Square Cash: USA
- Ripple: Worldspread
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5. Person-to-person payments digitizing

- There are plenty of retail payment contexts that do not provide the clear distinction between payer and payee as ‘consumer’ and ‘merchant’: person-to-person payment methods cater for these contexts.

- The trend that is visible in various regions is that non-cash alternatives arise in person-to-person payments by means of electronic payment instruments that can be used between equal economic actors.

- In cross border contexts, remittance has been the important driver for the development of person-to-person payment instruments.
5. Person-to-person payments digitizing - illustrative examples

- Bitcoin: worldwide
- GCASH: Philippines
- Regalii: Dominican Republic
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6. Emergence of continents on the web

- Platforms like social networks, large merchants or all-round Internet services like Google have fragmented the web into a multitude of isolated ‘continents’: users can enjoy a seamless experience within these ecosystems, including payments.

- The platforms try to make it convenient to combine all sorts of activities in one platform, but will also try to ‘lock in’ the users and prevent them from moving away to other parts of the (virtual) world.

- This has created a tendency for the web to ‘tribalize’. Payment methods are being specifically designed for these continents.

- With platforms all building their own fit-to-purpose payment solution, fragmentation of the market occurs.
6. Emergence of continents on the web - illustrative examples
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Retail payments, because of their important positions in the life of all citizens, form a rich source of information. With the reduction of data storage costs, increased processing speed and the development of smart algorithms, more and more is data aggregated and used for a variety of purposes.

Payment data are broadly used to offer a more customer-centric approach and to detect fraud more efficiently.

One of the main purposes of the use of Big Data is offering the customer a personalized approach. This development is increasingly relevant for banks too, as they are under pressure to transform from product-centric to customer-centric organizations.

The use of big data can help banks to understand their customers better and improve customer satisfaction by developing those products that their customers are actually looking for. This will not only increase revenue by tailoring services to customer needs, but can also contribute to regaining trust that was partly lost during the recent financial and economic crisis.

Another purpose of using payment data is to reduce risks and counter fraud.
7. Big data - illustrative examples

- OCBC Bank: Singapore and Malaysia
- DCB Bank: Singapore
- Alifinance: China
Detailed discussions

Virtual Currency Schemes

ApplePay

Country Perspectives
Overall safety and efficiency

- Oversight regimes will have to be expanded to include new players and new technologies will have to be monitored to ensure continued safety, reliability and efficiency of the NPS.
- Security of payments and consumer protection have to consider new environment and new ways of managing and using payment data.

Affordability and ease-of-access to payment services

- Potential to increase access to transaction accounts
- Authorities have to be vigilant to avoid the dominance of single entities and lock-in of customers

Availability of an efficient processing infrastructure

- Need for interoperable solutions on two levels: interoperability between the same type of service providers (e.g. different MNOs) and between the “old” and the “new” world (e.g. banks and new service providers)

Availability of a socially optimal mix of payment instruments

- Need to monitor overall benefit of the new payment mechanisms that are being introduced.
PPP Goals

Payment Systems Development Group
The World Bank

www.worldbank.org/paymentsystems