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Insights | Corporate Clients

Instant Payments are Here, Are You Ready?

Imagine a world where anyone with a smart phone or internet connected device can buy goods and services, securely within seconds, using a digital payment without needing a credit card. This vision of tomorrow's world is happening today and Asia is at the forefront of this transformation.

Consumers are widely adopting technology for an array of day-to-day services from transferring money to friends and family, paying for gig and sharing economy services, booking travel, shopping online, consuming content, and posting on social media.

Digital payments such as wallets and instant payments are becoming the preferred method to pay for these activities and are growing faster than cards and cash. Asia is a fertile landscape for digital payments as there is comparatively low card penetration whilst regulators are promoting cashless societies in order to reduce payment costs and improve transparency.

It is still relatively early days but we are increasingly seeing corporates leverage the power of APIs to offer new digital payment options such as instant payments to customers at checkout as alternatives to cards in order to increase sales success rates, save between 2-3% transaction acquisition cost, capture customer payment data, improve user experience, and decrease fraud rates in the order to cash cycle.

What are Instant Payments?

Instant, faster, immediate, or real-time payments are all terms used for digital, low value, domestic, account to account payments with debit from payor's account and credit to beneficiary's account occurring within seconds on a 24x7x365 basis.

Nearly every country in Asia will be launching an instant payment scheme by 2020 which will tend to run parallel to existing batch-based settlement schemes. A number of countries have already launched instant payments including the three largest eCommerce markets China, India and Indonesia. These join Singapore, Thailand and Australia who most recently launched it in early 2018.

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Traditional batch-based clearing rails are not keeping up with convergent consumer and corporate payment needs in this real-time digital age, so regulators and industry bodies are pushing new schemes to provide information faster, around the clock, and at the lowest cost.

Most schemes will have common features such as ISO XML standards, API connectivity, tokenization or virtual addressing, extended remittance data, finality of funds, and request to pay (RTP) pull capabilities from consumer to merchant.

How Can Instant Payments Help Corporates?

Credit cards are the most common form of payment for eCommerce in the Western world but they are usually not the most commonly used in Asia. This is particularly true in emerging markets where card penetration rates are still relatively low but they do still comprise an important proportion of eCommerce purchases as people that own cards usually spend more and have access to financing.

Table 1: Instant Payments Uses

Model	Payment Type	Instant payment use cases
Consumer-to-Consumer (C2C/P2P)	Friends & family	• Funds transfers to friends or family members
	Gig economy	• Informal payments that replace cash or checks e.g. babysitter, gardener
Consumer-to-Business (C2B)	eCommerce shopping	• Shopping cart payment for goods and services, faster shipping • Lower cost alternative to cards e.g. no additional card or booking fee
	Wallet top ups	• Mobile wallet top up with value pushed or pulled from a bank account
	In-store POS purchases	• Merchant can pull transaction from consumer using RTP and QR code application
	Bill payments	• Ad-hoc bill payment settlements e.g. utilities, subscription services • Recurring bill payments via faster direct debits with an e-mandate sign up
	Consumer financing	• Micro-finance repayments. RTP for first down payment and then regular installments
Business-to-Consumer (B2C)	Loyalty schemes	• Incentive rewards such as cash back payments to drive adoption
	Sales incentives	• Incentives to distributors to increase sales
	Ad-hoc payments	• Irregular employee payments e.g. replace cash to temp workers, make payroll, reimburse T&E expenses, payroll error corrections • Customer refunds to a bank account instead of chargebacks to cards • Insurance claim payouts or legal settlements
Business-to-Business (B2B)	Accounts payable and receivable	• Time sensitive lower value supplier payments to capture early payment discounts • Faster inventory purchases that require urgent shipping • Just in time payments to suppliers to enhance supply chain • Real-time government agency payments including tax, customs • Payment for acquisitions or capital good purchases • Yield benefit and balance sheet benefit from reducing float

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However, digital payment alternatives such as mobile wallets and instant payments are increasingly replacing cards and cash on delivery as the fastest growing forms of payment for eCommerce in Asia[1].

One of the drivers is financial inclusion and Citi estimates there are nearly 1.9 billion people in Asia, approximately the entire population of India and ASEAN combined, who are over the age of 15 and own a bank account but do not own or regularly use a credit card[2].

This huge number of potential customers will most likely be digitally-engaged and tech-savvy and crying out for a new frictionless alternative to make online and offline purchases. This population is a key target market for corporates to offer a new range of payment options at checkout for direct to consumer sales.

Instant payments are "direct to account" payments launching across Asia, and Citi sees a wide range of potential use cases from day to day retail consumer payments to friends and family, through eCommerce consumer to business and even business to business payments as listed in Table 1.

Those are just some of the possible uses for new instant payment schemes arriving to market. We can posture that the battleground in Asia is no longer between physical and digital payments, but it is now between different types of digital payments.

What are the Scheme Features that Drive Instant Payment Adoption?

As country regulators progressively launch instant payment schemes, we are seeing certain key features increase market adoption such as:

- **Speed**: 'Instant' means the transaction and exchange of information needs to be as close to real-time as possible i.e. within seconds. Regulators need to ensure that all participants are bound by service level commitments which maintain speed at their core. Corporates are increasingly looking to use Application Programming Interfaces (APIs) to connect to scheme partners that maximizes the speed of information flow that these new schemes bring

- **User experience**: It is key for wide spread consumer adoption. Consumers need to be able to register through a simple sign-up for tokenization or bill payments, approve a transaction, or push a payment to a merchant with as few clicks as possible. Instant payments tied to QR code applications could provide a similar fast and reliable experience to using a card or cash but reduce the costs of intermediaries in the acquisition for the merchant.

- **Request to Pay (RTP)**: RTP will be a feature of a number of instant payment schemes and enables a merchant, or potentially an internet connected device, to pull a transaction from a customer's account securely within seconds and with finality of funds. An RTP would typically require the consumer to authorize the transaction to ensure a second factor authentication exists and ideally this should be through biometrics for user experience.

  Using standardized QR codes could be the game changer for eCommerce payments. In an ideal scenario, a merchant presents a QR code to a buyer who scans the code with their banking or wallet app which authorizes an RTP from the consumer's account paid directly to the merchant's account with confirmation within seconds.

  RTP, and faster direct debits for recurring topups, could integrate also with mobile wallets as they can be used to transfer value to wallets from a bank account (rather than a card or over the counter with cash) faster and with less friction.

- **Tokenization**: Many schemes are offering a virtual address (VA) capability where a bank account is tokenized into an email, phone number, or national ID. The link between bank account and

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[1] World pay, eMarketer. CAGR of C2B payment instruments 2015-2020. Cards expected to grow 28% vs bank transfers at 35%
[2] World Bank, US Census Bureau, Wiki Treasurers, Bank Negara Malaysia, Bank of Thailand, Reserve Bank of India, People's Bank of China, Citi Internal Data

Multi-nationals with significant card acquiring costs are using instant payments linked to RTP, APIs, and tokenization as a realistic, cheaper alternative to cards. Consumer adoption can be increased by incentive programs such as cash back offers linked to instant payments.

VA is securely stored with a central organization. Tokenization should increase market adoption by alleviating consumer concerns around providing bank account or debit card details online. Wide spread adoption by consumers will also create benefits to corporates who need to pay customer refunds, or pay for other reasons (e.g. insurance claims, sharing economy driver or host settlements, distributor sales incentives etc). Corporates would no longer need to record and maintain vast amounts of bank account information in order to make a payment. Corporates can also setup a VA themselves to receive bill payments from customers faster and with less friction.

- **Value limits**: Some schemes have value limits due to an initial retail focus on consumer to consumer transfers. For schemes to expand beyond to wholesale use cases for eCommerce and bill payments, value limits will need to be revised upwards to accommodate larger ticket items such as air travel, consumer electronics etc.

- **Cost**: Instant payments need to be priced in cents rather than percents to provide a compelling alternative to credit cards and existing high value, real-time options.

- **Rewards**: Credit cards provide loyalty rewards and dynamic point of sale offers to consumers, whilst rebates are enjoyed by corporates which reduce costs somewhat.

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- **Consumer financing**: A key benefit to credit cards is that they provide lines of credit to boost spending power for larger purchases, whist providing convenient repayment options. Innovative new micro-financing solutions using instant payments are being developed to close this gap and could be a significant growth area for corporates, banks and fintechs.

- **Business-to-business (B2B)**: The size of C2B transactions is dwarfed by B2B and schemes are rolling out features that should aid corporate adoption of instant payments. Many corporates experience problems with reconciliation due to the limited amount of data allowed within older batch based clearing which truncates invoices. New instant payment schemes are being designed to enrich data capacity which should improve auto-matching rates within cash application. Instant payments aligned with solutions such as Virtual Accounts should help to improve reconciliation. Also, some schemes such as NPP in Australia are rolling out digital document attachment capabilities e.g. invoices, which will also help to improve B2B reconciliation.

  However, schemes will need to adapt to commercial realities and revise transaction limits (if they do exist), consider multiple signers for two-factor authentication, endeavor to ensure standardized formats (e.g. ISO XML), avail API connectivity, and integrate with electronic invoicing processes to ensure B2B use cases.

The list of features outlined above is merely a snap-shot of the nuances that regulators and payment associations are building into scheme parameters.

An example of how consumers can take to a new scheme is India's Unified Payments Interface (UPI) which provides low value, tokenized instant payments.

When UPI launched in late 2016 it became one of the world's more sophisticated Virtual Addressing schemes, and has since been adopted by 57 banks[3] and a number of local and multi-national corporates including Google and Facebook who have created payment applications that access UPI and enable transfers within their enormous user bases in India.

[3] RBI, National Payments Corporation of India

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UPI is becoming mainstream for person to person transfers and, whilst integration by merchants for eCommerce is still in its infancy, consumer to business transactions already comprise over 10% of total value and the volume of payments is doubling month by month as more corporates register themselves on UPI[4]. 151.8 million transactions happened through UPI in January 2018, 50% more than November 2017.

Each of these schemes is interesting in its own right and Citi would be happy to discuss individual scheme differences with clients. We have found that treasurers evaluating implementation of an instant payment option will tend to initially look at:

a Is the scheme live today or when it will launch

b How widespread is adoption and for which use cases e.g. P2P transfers only

c Practical considerations e.g. do I need a local legal entity to access the scheme

d Technical considerations e.g. what connectivity is available to my scheme partner

e Operational and treasury considerations that come with 24x7x365 processing such as liquidity and funding, service requirements, system automation

Overall, the schemes in Asia represent a global surge in interest in instant payments with the UK, Europe, Argentina and US among 25 countries and the SEPA region that are rolling out their own schemes[5].

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Case Study: Boosting Sales Through RTP and APIs

The client is a world-wide leader in health and beauty products operating in India.

Objectives

The client was looking to increase sales checkout success, and reduce card and cash transaction costs whilst retaining transaction speed and information.

Challenges

How to add new customer forms of payment options to customers at checkout without increasing friction and frustration. Previously, customers had to fill out credit card details which led to high sales dropoff rates, and encouraged customers to pay by cash which which costly and inefficient for the client to handle.

Solution

UPI tokenized payments enable customers to pay via bank account transfers and means they only provide their Virtual Payment Address at checkout. An API connectivity to Citi with Request To Pay enables the client to pull transactions directly from the consumers' bank accounts.

Benefits

- Real-time information on transaction success or failure is exchanged with Citi via APIs for automated reconciliation and so shipping can begin immediately to help inventory management
- No need for client to maintain PCI DSS license to store credit card details as the buyer's information is tokenized
- Eliminates the 2-3% card margins taken by intermediaries to improve margins and cost of goods sold
- Digitizes transactions that might have been cash on delivery before whilst providing a smooth user experience at checkout to increase top line sales revenue.

[4] Average spent growth per annum calculated based on card industry data from 2012 to 2016

[5] Citi analysis of global trends in instant payments

Instant Payment Landscape in Asia Pacific

The current rollout schedule for instant payments is illustrated below[6]:

	Instant Payment Scheme/ Framework	Available 24x7x365	Transaction Limit (in USD terms)	Payments Types: Credit push: C Debit pull: D Request-to-Pay: RTP	Omni Channel Online: O Mobile: M Physical: P Tokenization: T	Message Standard
China	IBPS	Yes	$7,500	C, D	O, M, P	ISO 20022
India	IMPS UPI	Yes	$3,000 $1,500	C, D, RTP	O, M, P, T	ISO 20022
Indonesia	ATM (Bersama)	Yes	$700	C, D	O, M, P	ISO 20022
Singapore+	FAST/ CAS (Q3)	Yes	$150,000	C, D, RTP	O, M, P, T	ISO 20022
South Korea	HOFINET	Yes	$900,000	C, D	O, M, P, T	Proprietary
Sri Lanka	CEFTS	Yes	$32,500	C, D	O, M, P	ISO 20022
Taiwan	IBRS	Yes	$1,700,000	C, D	O, M, P	Proprietary
Thailand#	PromptPay	Yes	$60,000	C, D, RTP	O, M, P, T	ISO 20022
Australia (Q3)	NPP	Yes	No limit	C, D, RTP	O, M, P	ISO 20022
Hong Kong (Q3)	FPS	Yes	TBD	C,D, RTP	TBD	ISO 20022
Malaysia^ (Q4)	FPX/RPP	Yes	Varies	C, D, RTP	O, M, P, T	XML/ ISO 20022
Japan	ZENGIN	Yes	TBD	C, D, RTP	O, M, P, T	ISO 20022
New Zealand	SBI	WIP	No limit	WIP	WIP	WIP
Philippines	NRPS	Yes	$1,000	C, D, RTP	O, M, P	TBD
Vietnam	NAPAS	Yes	$22,000	C, D, RTP	O, M, P, T	TBD

Live Now* Live 2018** Country Planning

* Citi live with varying levels of capability
** This slide denotes market data only
+ Singapore TTS live for incoming, CAS in Q3, outgoing Q4
# Thailand live in Q1 for bulk tokenized payments, Q4 for individual, RTP and bill payments
^ Malaysia live in Q4 for FPX including e-mandates, 2019 for RPP

[6] Citi research across central bank information that is publicly available

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The Digital Payment Revolution

It is clear that regulators, banks, the fintech community, and corporates are seeing the possibilities that instant payments represent.

New forms of digital payments will create a paradigm shift from batch to instant processing.

To keep up with the pace of change, banks themselves need to make significant investments to upgrade batch based general ledger, payment processing, credit, liquidity and sanction screening systems, whilst also improving fraud detection to be able to handle large volumes of micro-transactions whilst continuing to manage risk.

As well as system capacity, the bank's client service and operations teams need to be prepared to handle issues around the clock so self-service tools and automated systems will be key.

As instant payments replace traditional batch payment schemes and digitize cash on delivery, they provide a realistic alternative to credit and debit cards. Adoption will require a standardized approach for scheme parameters by regulators and industry bodies across countries to make it easier, and less costly, for corporates and banks to implement. For corporate treasury and finance teams, there are numerous considerations to get prepared for the new wave of digital payments. Working with bank partners will be important to understand what is coming down the pipe. Citi sees different use cases for corporates depending on their business.

Tokenization is a key benefit to companies with high volumes of outbound micro-payments for insurance claim settlements, driver or host payouts, or public sector pension payments or tax refunds as the payor no longer needs to handle large master vendor or bank account details.

Payment cost reduction, faster information and cash application, faster shipping, and sales growth are key drivers for considering instant inbound payments and especially collections solutions like RTP and direct debits.

We are seeing treasury, payments ops, and business development teams increasingly working together to plug into new instant payment schemes to enable growth.

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