



# The importance of dependability in real-time payments

RESEARCH REPORT

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# Foreword



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As a leading global provider of real-time payment infrastructures and applications, we know that people depend on secure, reliable access to their money.

We define a dependable service as one that is both trustworthy and reliable; that's always available to those that use and rely on it. It's why we invest just as much in the security and resilience of our real-time payment solutions as we do in providing rich, innovative functionality.

To help us understand just how vital dependable real-time payment services are, we put a short survey to people who are currently using them to transact with businesses, governments, and other people in six markets: the UK, Japan, Australia, Thailand, India, and Mexico.<sup>1</sup> We selected these markets to ensure a varied maturity level of when real-time payments became live, and a mix of developed and developing economies.<sup>2</sup>

Our objective was to identify current behaviours and perceptions of the dependability of real-time payments; to understand current levels of awareness of the local real-time payment scheme, and what impact increasing awareness would have on perceived dependability; to understand how important real-time payments is compared to other dependable services/instant gratification categories; and to uncover levels of concern and impact on payment behaviours if real-time payments were no longer available.



Over 70 countries either already have or are in the process of implementing real-time payment services



## dependable

/di'pendəb(ə)l/

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**adjective**

1. trustworthy and reliable.

We learned that people's lives had been enriched by the introduction of real-time payments — that they value them for their convenience, accuracy and speed. These benefits make them a viable alternative to cash in a range of scenarios. Three quarters of users in the markets we surveyed agree they would like all digital payments to be real-time. We also learned that security and resilience of real-time payment services are integral to this value proposition — users' biggest frustrations when transacting digitally include concern over the use of their personal details and data, when transactions take too long to complete, and when the digital payments service they use goes down.

People consider real-time payments more important than other dependable services categories such as the internet, next-day delivery, and utilities. They are considered significantly more important in developing markets. Real-time payments are also essential to entrepreneurs' and small business owners' success.

Growing awareness of real-time payments among users living in developing markets and notably Japan is certain to improve people's confidence in digital transactions, and would make them likely to perform more of them. Overall, banks are the most trusted sources of information on real-time payment services, but there is an opportunity for technology providers to build a credible narrative in developing markets. Social media will become an increasingly important tool in driving awareness of real-time payment services over time, and more so in developing markets.

If real-time payments weren't available — if the service went down or was discontinued — many people would be concerned about a delay in receiving their salary, benefits or tax rebates. People in developed markets would be most concerned about paying their bills, while people in developing economies would worry about transactions involving family or friends.

In developing markets, where digital alternatives are limited, people would most likely return to cash or cheque. And they would consider it a detriment to their businesses.

Our findings reiterate something we have long known: that real-time payment services must be both trustworthy and reliable in order for people to use and benefit from them. Proving their dependability is a key driver for trust.

Mastercard's real-time payment infrastructure and applications, available as a fully managed service, is secure and reliable. It keeps pace with the speed of life for the people, businesses, governments and financial institutions that depend on it.

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Visit [vocalink.com/realtimementpayments](https://vocalink.com/realtimementpayments)

#DependableServices

## In a fast-paced world, people depend on secure, reliable access to their money

To establish the context for our research, we asked our survey participants which types of payments they made most often. We found that four in five users made or received peer and business based real-time payments on at least a monthly basis. Sixty-six percent of users said they used real-time payments to transfer money between their own bank accounts online using a desktop or mobile; 54 percent said they'd used this method to pay their bills, and 41 percent of users said they'd transferred money to family or friends this way.

When we asked about the kind of payments users had made or received in the past six months, the proportions rise to 92 percent and 87 percent for peer and business-based payments respectively. A quarter (26%) of users said they had received payments such as welfare disbursements or tax rebates from government in real-time during this period.

Figure 1A: Which of the following type of digital payments, if any, have you personally done in the past 6 months? Please select all that apply. Base: All respondents (6,049)

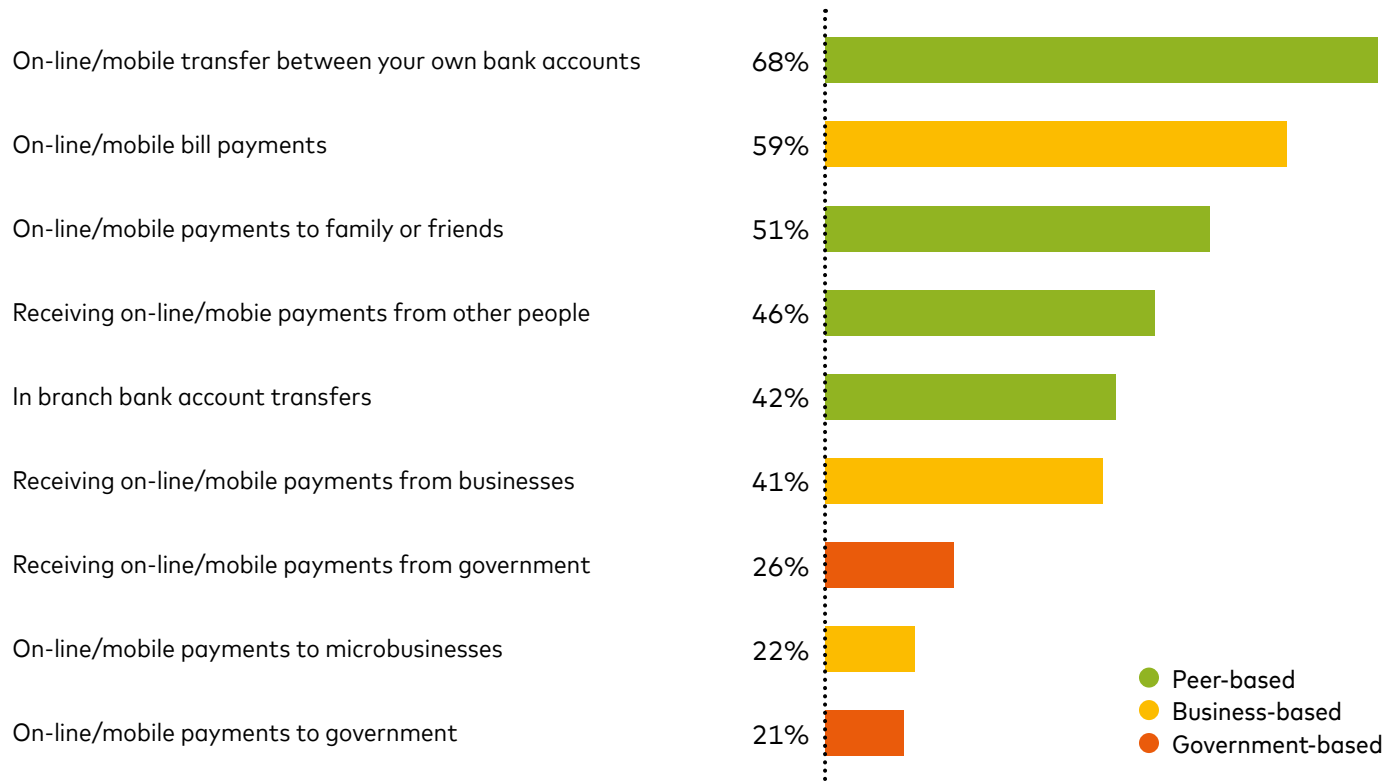


Figure 1B: Which of the following type of digital payments, if any, have you personally done in the past 6 months? Please select all that apply.  
Base: All respondents (6,049)



By way of comparison, 71 percent of users reported they had made a debit or credit card payment in the past six months, and 59 percent say they'd paid or been using cash or cheque. This higher usage of real-time (account-based) payments among the digital payment methods we asked about suggests the increased range of payment types they enable makes them more likely to be used: Among users of real-time payments, peer-based payments (which can't typically be made using a card) are most common.

In Australia, where the New Payments Platform real-time payment service is used by government to disburse welfare payments and by people to pay their taxes, an indicative 53 percent of users claim to have made a government-based payment in the last six months.

In Thailand, where the PromptPay service enables people to send money to other people without needing their bank details (such as a mobile number, email address or citizen ID), the proportion of users that have used real-time payments in the past six months rises to 96 percent. This finding suggests the security and convenience afforded by real-time proxy-enabled payments make them a viable alternative to cash.

In fact, when we asked about the benefits of real-time payments generally, all users feel the accuracy, reliability and security – in other words, the dependability – of the digital transactions they've made in the past six months have been good.

Percentage of users think that real-time payments are:

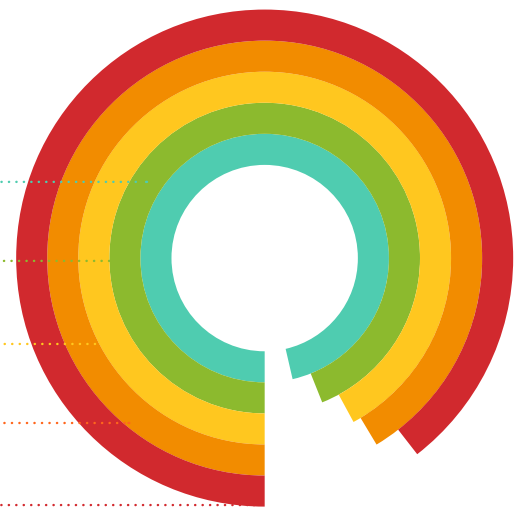
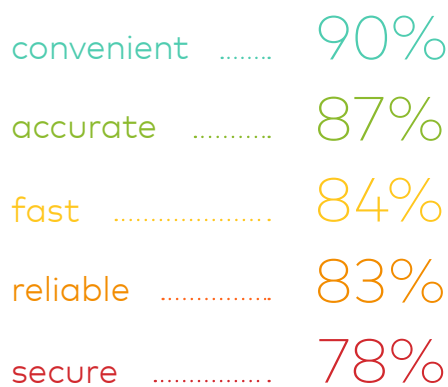


Figure 2: Thinking about the digital transactions you have made in the past 6 months, how would you rate them for each of the following?  
Base: All respondents (6,049) NET: Good 7-10

Japan is something of an outlier among the markets we surveyed, with users rating digital transactions between 15 and 30 percent lower for all five benefits. Just 57 percent of users in Japan rate digital transactions good for reliability, and 47 percent rating them good for security. At the other end of the spectrum, 95 percent of users in Mexico rate digital transactions good for convenience and 89 percent rate them good for security — significantly higher than all other markets. This suggests the Mexican real-time payment system is more dependable. But perhaps it's a matter of perspective?

Japan has had a real-time payment service for nearly fifty years — the ZenginNet infrastructure was a world-first when it was installed in 1973. In Mexico, however, the ability to make real-time payments is much more novel, with the Interbank Electronic Payment System (SPEI) having been introduced in 2004. Far more people in Mexico than Japan can likely remember a time before real-time payments and therefore perceive the experience they have today far more favourably by comparison.

Eighty-seven percent of Mexican users feel that digital payments have improved in the last three years. This correlates with proliferation of mobile wallets in 2017, which facilitate real-time payments to other people. And in September 2019 the Bank of Mexico launched Cobro Digital (CoDi) — a real-time mobile payment solution for paying merchants and businesses using contactless terminals or QR code. Innovations like these seem to go a long way towards making people feel their payment experiences have improved.

Almost all (88%) users in Thailand feel their digital payment transactions have improved in the last three years, coinciding with the 2017 launch of PromptPay. In India, where Amazon launched its P2P payment service Amazon Pay on the real-time Unified Payments Interface in 2019, a significant 91 percent of users feel the same. But in Australia, where the real-time New Payments Platform and associated solutions launched as recently as 2018, just 66 percent of users agree.

88%

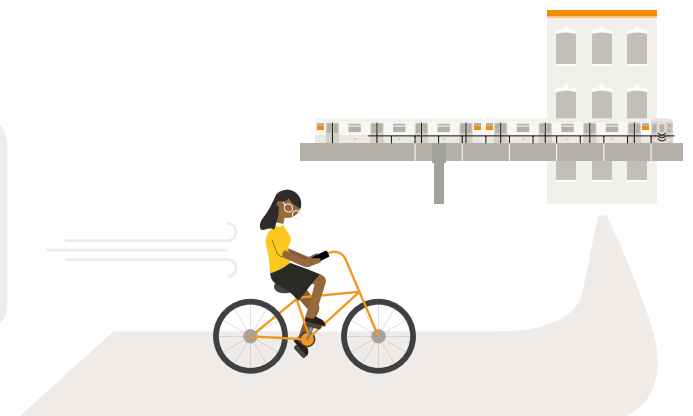
of Thai users say digital transactions have improved

So, if it's not the recentness of payment innovations that makes users feel their experience has improved, perhaps it's the significance of them. Overall, more people in developing markets feel digital transactions have improved (89%) than those in developed markets (58%). If we take the definition of a developing market to be one that lacks dependable infrastructure, we might assume the introduction of these payment innovations have been more transformational.



Before, we would have to wait at the bank... it was time-consuming.

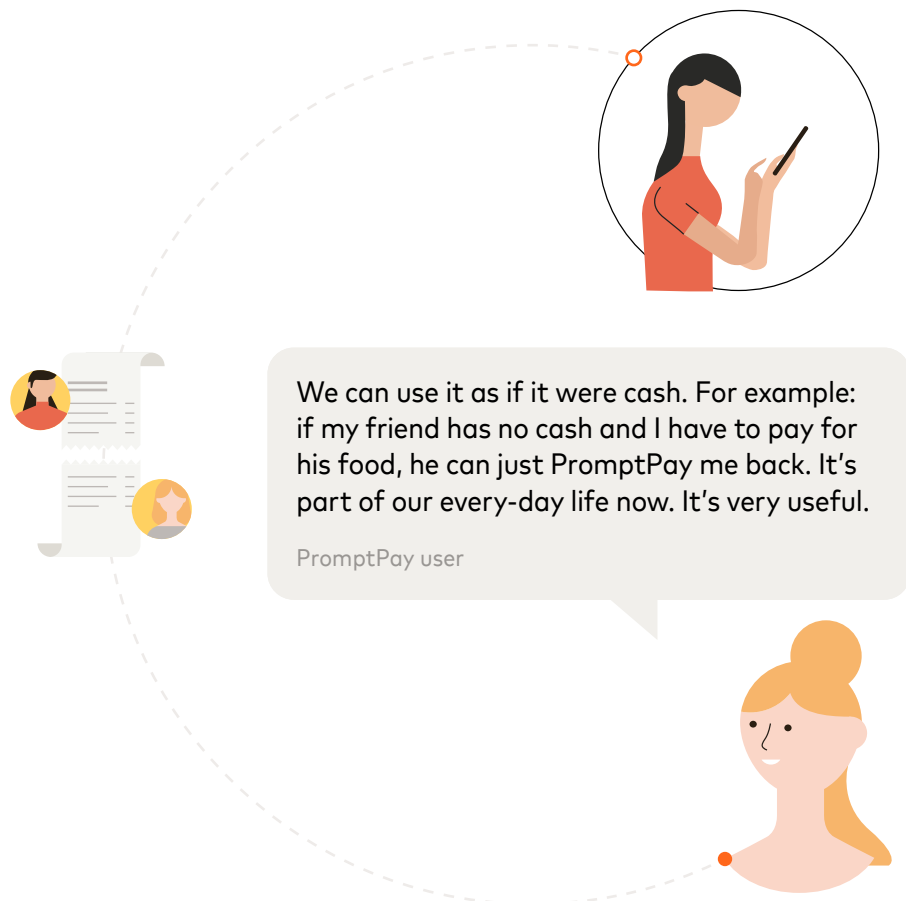
PromptPay user



People's age also has a profound impact on whether they believe digital payments have improved in the last three years, with younger people aged 18–24 (83%) significantly more likely to feel this way than those aged over 55 (57%). Young people tend to be early adopters of new technology, so we might assume they have more experience (and greater awareness) of the benefits.

Security and resilience of real-time payment services are integral to this value proposition – users' biggest frustrations when transacting digitally include concern over the use of their personal details and data, having to pay transaction fees (in markets where these are applicable), when transactions take too long to complete, and when the digital payments service they use goes down.

The benefits are broad and compelling; more than three quarters of users would like all digital payments to be real-time. In Mexico, this rises to 95 percent of users; in India, nine out of 10. In the UK and Japan, where alternative digital payment systems are well-established and reliable, the preference among users we surveyed is lower at 62 and 57 percent respectively.



We can use it as if it were cash. For example: if my friend has no cash and I have to pay for his food, he can just PromptPay me back. It's part of our every-day life now. It's very useful.

PromptPay user



## Raising awareness of real-time payments would grow confidence and number of transactions

Many people who use digital payments don't realise they're transacting via a real-time payment scheme. We were keen to gauge awareness of real-time payments among users.

Mid-way through our survey, we presented respondents with a description of real-time payments and asked 'Before today, have you seen, heard or read about the real-time payment scheme?' Just over half (53%) of our sample had, which means that many — even if they made regular real-time payments — did not realise it.

### Launching PromptPay in Thailand

In our survey 82 percent of Thai users had heard of the real-time payments scheme. Thailand's real-time payment scheme PromptPay was launched by the Bank of Thailand with Vocalink, a Mastercard company, in January 2017. An ambitious project, especially when just over 97 percent of Thailand's retail payments were handled in cash in 2010.<sup>3</sup>

PromptPay allows registered customers to transfer funds using a mobile phone with only the mobile number or Citizen ID number of the recipient. It can also be used to receive payments from government agencies, for example, social security benefits, retirement payments, and tax refunds.

The initial growth in PromptPay can be traced back to the government's move to provide tax refunds via the platform. Businesses have also begun using PromptPay to lower the cost of transactions and make it easier to manage their expenses. In some cases, customers pushed retailers to adopt the platform for their mutual convenience.

Read more at [vocalink.com/promptpay](https://vocalink.com/promptpay)

PromptPay was brought to market as an independent (i.e. bank-agnostic) consumer-facing brand. The Thai government's decision to push tax refunds through the PromptPay platform was also an excellent way to drive initial interest in and adoption of the service. Awareness subsequently grew through word of mouth, and TV and social media advertising.

In our survey, 75 percent of users in Thailand had heard about the real-time payments scheme via social media, and 46 percent via an advert online. As testament to its ubiquity, it's now been verbed: "If I pay for his food he can just PromptPay me back."

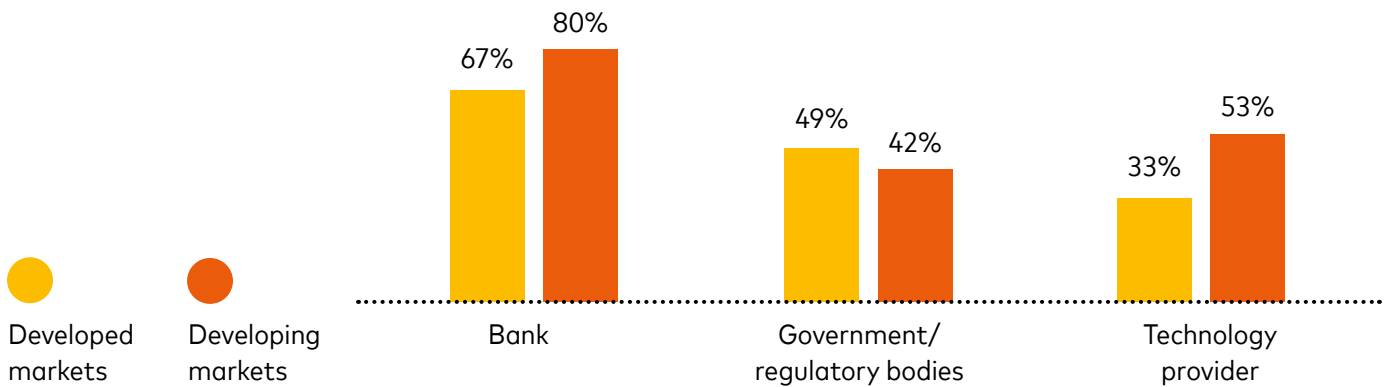
Since 2017, the platform has enabled a steady stream of innovation, including payment by corporate ID proxy, QR retail payments, and request to pay functionality. At June 2019, PromptPay registrations totalled 49 million. Annual transaction volumes have grown to 2.5 billion in three years. The Bank of Thailand reports that it has significantly contributed to the 83 percent volume growth in digital payment transactions since 2016.<sup>4</sup>

Across markets, awareness is higher among younger users (18–34 60%; 35–54 56%) and lower among those aged 55 and over (39%). When we asked users where they'd seen or heard about the real-time payments scheme, 58 percent of 18–34-year-olds said 'social media', significantly higher than other age groups, suggesting social media will become more important in driving awareness of the real-time payments scheme over time.

But while social media is important in driving the profile of real-time payments in developing markets (64 percent of users said they'd received some sort of communication about the real-time payments scheme on social media), banks are critical in raising awareness of real-time payments overall. In developing markets, 51 percent of users listed their bank or financial services provider among the sources of communication about real-time payments, as did 45 percent of users in developed markets. Online channels followed shortly behind, and friends and family ranked highly (40%) among users in developing countries such as Thailand, India and Mexico.

There is an opportunity for banks to take advantage of the high levels of trust users place in them to communicate information about the real-time payments scheme. Overall, 74 percent of users said they'd trust their bank to provide information about real-time payments, ahead of government and regulatory bodies (45%) and technology providers (43%). This is true across all age groups. But there is an opportunity for technology providers to build a credible narrative in developing markets, where 53 percent of users would trust them as a source of information.

**Figure 3**  
**Who of the following would you trust to communicate information about real-time payments in your country?**  
 Base: All respondents aged 18-34 (2,176), 35-54 (2,286), 55+ (1,587)



Growing awareness of real-time payments is certain to improve people's confidence in digital transactions, and would make them likely to perform more of them — especially in developing economies. In India, 91 percent said they'd feel more confident if they were more aware, and 86 percent said they'd likely do more transactions; in Mexico, these figures are 90 percent and 82 percent respectively, and in Thailand 90 percent and 80 percent.

Education is therefore key to fuelling the growth of these countries' digital economies. Governments and regulatory bodies have a social agenda for doing so; banks or technology providers have an economic one. Which will be first to seize the opportunity and grow their transaction revenue?

## People question what would happen if real-time payments weren't available

We asked people what would happen if real-time payments were no longer available. The biggest concerns related to large regular payments that they owed and were owed to them: 45 percent of users would be concerned about paying bills or businesses, and 43 percent would be worried about a delay in receiving their salary, benefits or tax rebates. Thirty-six percent of users would miss being in control and having a clear view of their finances at any time.

The concerns are generally greater in developing markets than they are in developed markets. In Thailand, where PromptPay is used by entrepreneurs and small businesses to pay and be paid for things they buy and sell online, users feared the subsequent delay and lack of transparency would negatively impact their businesses:

Businesses would stop working because we can't transfer the funds instantly; we can't check if everything is okay. We would have to wait for the banks to open.

PromptPay user

If we reply too slowly, the customer will go somewhere else. We have to act quickly, ship quickly. Everything has to be quick so the customer will keep buying from us.

PromptPay user



And concerns are significantly greater when it comes to transacting with other people: More users in Thailand, India and Mexico (38%) would be worried about receiving and making immediate payments to friends and family than those in Australia, Japan and the UK (19%). The resulting negative impact would likely be much more keenly felt.

We followed up by asking users about the alternatives. Again, there's a significant split between reactions from users in developed and developing markets. Remarkably more users in developed markets claimed they would 'do nothing' — 33 percent in Japan in 31 percent in the UK. Perhaps they're content with the non-real-time alternatives — the users we surveyed in these markets tend to have higher household incomes, so we can assume they have more of a buffer between their incoming and outgoing payments. In Thailand, by contrast, a significant 54 percent of users said they'd have to review their existing fixed payment methods if real-time payments were discontinued — knowing their income will arrive on-time (before outgoings are paid) is critical to their money management strategies.

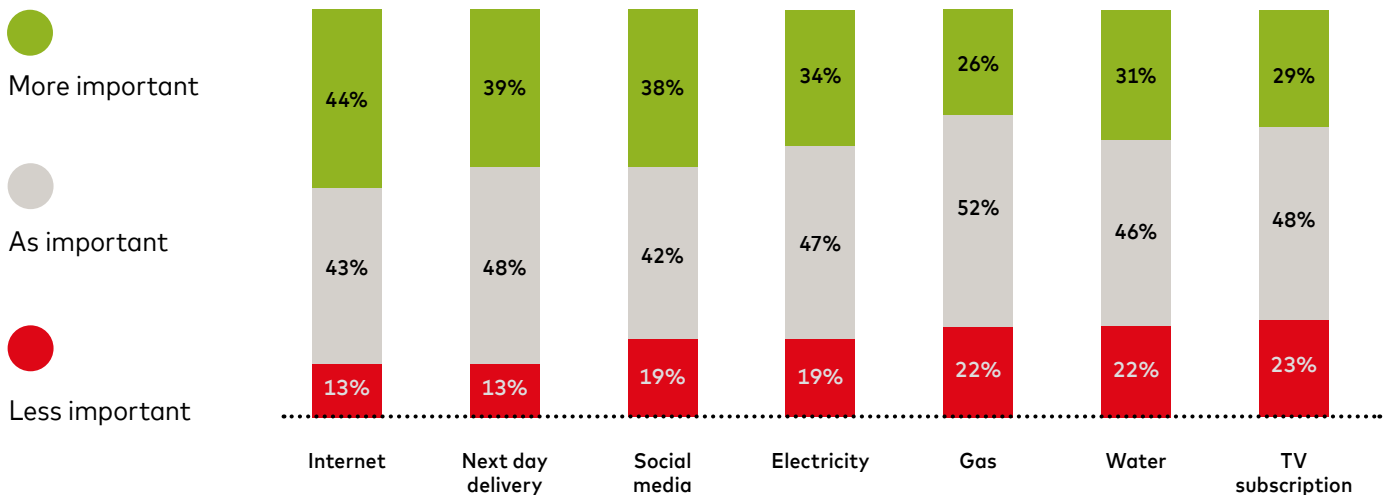
In developing markets, where digital alternatives are limited, users would most likely return to cash or cheque (Thailand 61%; India 61%; Mexico 48%). Half (50%) of users in India and 46 percent in Mexico said they'd use digital payments less if they weren't real-time — a big step backwards in these countries' efforts to drive a more digital economy.

Imagining a scenario in which instant payments might not exist helped people realise just how important it is that they remain dependable. We draw the conclusion that usage of real-time payment services would most likely decline if they proved insecure and/or unreliable.

## People consider real-time payments more important than other dependable services

We closed out by asking users how real-time payments compare to other dependable services in the instant gratification category. Forty-four percent of users consider real-time payments more important than having access to the internet, and 41 percent consider them more important than utilities.

Figure 4  
Now you have heard of real-time payments and its role in your day-to-day life, how would you rate its importance compared to each of the following?



Real-time payments are considered significantly more important within developing markets. In Thailand, 79 percent of users value them over the internet; 60% of people in India value real-time payments over electricity.

Raising awareness of real-time payments can only help drive their perceived importance compared to other services that offer instant gratification. But it's vital these real-time payment services are dependable – both reliable and trustworthy – for people to use them, reap the benefits, and access the experiences they enable.

## Technical note

This research was conducted in partnership with Populus and commissioned by Mastercard. It was to inform the following objectives:

- Identify current behaviour and perceptions of the dependability of real-time payments
- Understand current levels of awareness of the real-time payment service, and what impact increasing this would have on perceived dependability
- Uncover levels of concern and impact on payment behaviour, if real-time payments were discontinued
- Understand how important real-time payments is compared to other instant gratification categories

We undertook a quantitative phase in 6 markets, UK, Australia, Japan, Thailand, Mexico and India. These markets were chosen to cover different geographies, as well as being at different levels of maturity in their real-time payments journey. The fieldwork took place from 3–8 February and consisted of a 10-minute online survey to consumers who are currently using real-time payments.

Participants qualified for the survey by answering a question around what type of digital payments they have used in the past six months, for example if a participant had made a person to person payment via their banking app in the UK, that would mean they have made a real-time payment and would qualify for the survey.

We aimed for a sample size of 1000 users in each market and we weighted the data to ensure each market was equally represented.

## References

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1. Vocalink, a Mastercard company, designed and implemented the real-time payment solutions in two of these markets: Faster Payments in the UK in 2008, and PromptPay in Thailand in 2017. Our technologies also power the instant payment infrastructures in Singapore and the US. As Mastercard, we will soon be rolling out our real-time solutions in Peru, The Philippines, the Nordics, and Saudi Arabia.
2. Definitions of 'developed' and 'developing' were identified using the 2019's United Nations' World Economic Situation prospects report. The qualifying criteria for real-time payments services was based on the definitions outlined within the 2019 Flavours of Fast report. Source: Forbes, "Flexible Working: The Way of The Future," May 2019
3. Vinayak HV, Florent Istace and Raj Kamal, "[Insights from Asia-Pacific Payments Map](#)", McKinsey, September 2012. Accessed 5 February 2018.
4. '[Cashless movement picks up steam](#)', *Bangkok Post*, 1 August 2019. Accessed 1 June 2020.

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## About Mastercard

Mastercard is a global technology company in the payments industry. Our mission is to connect and power an inclusive, digital economy that benefits everyone, everywhere by making transactions safe, simple, smart and accessible.

Using secure data and networks, partnerships and passion, our innovations and solutions help individuals, financial institutions, governments and businesses realise their greatest potential. Our decency quotient, or DQ, drives our culture and everything we do inside and outside of our company.

With connections across more than 210 countries and territories, we are building a sustainable world that unlocks priceless possibilities for all.

[mastercard.com](https://www.mastercard.com)

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## About Populus

Populus is a leading research and strategy consultancy specialising in political, reputation, stakeholder and consumer research.

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