Thunes. JUNIPER RESEARCH

The Thunes Cross-Border Payments Interoperability Index 2026



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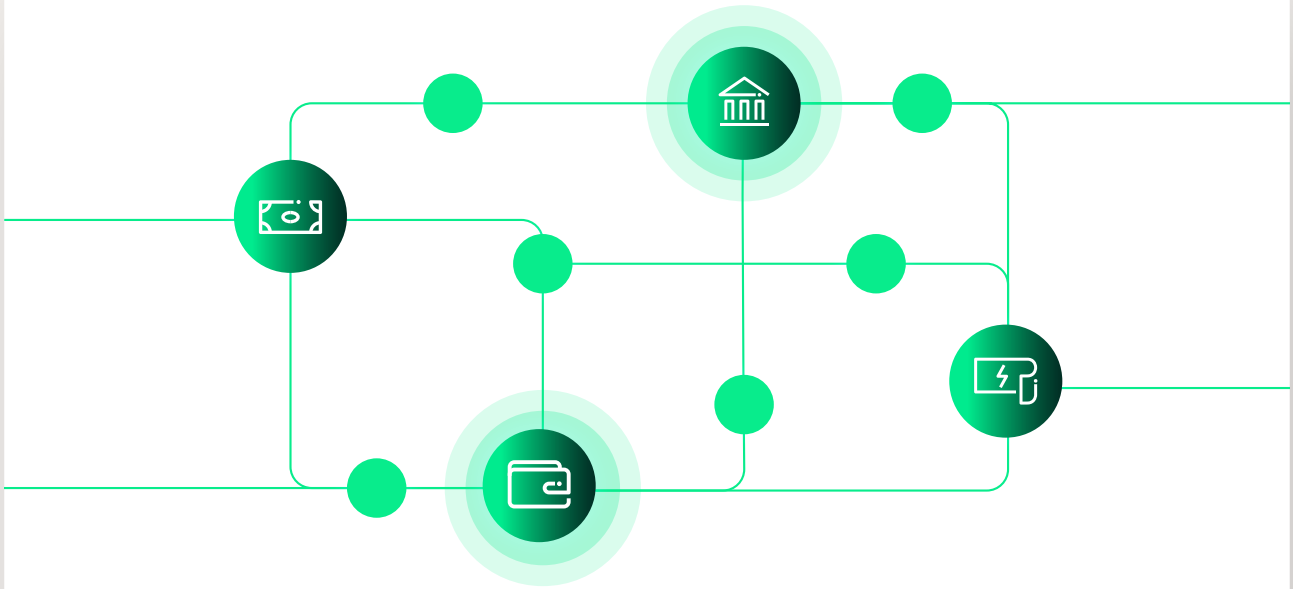
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Executive Summary

1



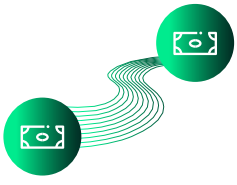
1.1 Introduction

As the digital economy expands globally, it has become critical to enable disparate national financial systems to communicate and transact with each other. From worldwide card networks to regional open banking schemes, and via correspondent banking relationships or stablecoin bridges, globally, the scale and diversity of payment systems is enormous. So too, is the task of making them work together.

Without interoperability between these systems, market fragmentation occurs, constraining users and creating barriers to the transfer of money across and between systems and international borders.

The challenge extends far beyond technical connectivity. Interoperability is not just about whether payment systems can exchange data, but also about whether people and businesses can fully participate in the global economy without friction or disproportionate cost.

Payments are made when people spend and when they save. At its core, interoperability is an enabler of economic mobility, empowering individuals to pay, receive, store and access money regardless of geography or preferred payment method. Success here has real impacts in terms of economic opportunities, with particular concentration around international gig workers and those sending or receiving remittances.



The ability to bridge traditional and emerging payment rails will increasingly determine which markets, businesses and individuals can participate fully in the global digital economy.

In the context of the consistent evolution of alternative payment mechanisms such as real-time payments rails and stablecoins, interoperability is emerging as one of the defining challenges of the next era of digital finance.

The risk with failure around interoperability is that payment innovation itself will become fragmented, creating parallel financial ecosystems that cannot connect with each other and inhibiting growth both in those markets and at a global level.

It is clear that achieving interoperability can reduce transaction costs, enhance competition and expand access to financial services.

However, the pursuit of payments interoperability is inconsistent, with the impact of this felt disproportionately in certain markets.

This report will explore what interoperability is, why it matters, its current state, and how it impacts people around the world.

To do so, Thunes commissioned Juniper Research to conduct an in-depth interoperability study, comprising a groundbreaking 50 country index, with supporting first-party research via a survey of over 6,600 respondents within 10 specific important markets.

The core findings of this report can be read by the primary global themes emerging from that combined research, by region, and towards the end of this paper, by country-specific Index ranking, which gives greater attention to the specific stresses faced within the core criteria.

1.2 Defining Interoperability

1.2.1 Legal and Regulatory Interoperability

Legal and regulatory interoperability refers to how effectively organisations operating under different frameworks and policies can co-operate to deliver services. In the context of payments, this means ensuring companies can operate across borders without being overly restricted.

For example, a payments provider enabling international bank transfers will face challenges if customer identification requirements differ between countries.

Legal interoperability can be strengthened by sharing legislation across multiple countries, such as the Payment Services Directive 2 Act in the EU, or by implementing similar regulatory approaches across jurisdictions.

1.2.2 Technical Interoperability

Technical interoperability describes the ability two different systems have to connect, communicate with each other, and utilise that information effectively.

In practice, this requires standardised frameworks across payments providers, providing a common format for data exchange and avoiding bespoke integrations.

The ISO 20022 messaging standard has played a major role in advancing technical interoperability for cross-border payments globally. By standardising the messaging used to send cross-border payments, straight-through processing has been improved, speeding up payment time.

A major barrier to achieving technical interoperability is legacy IT systems, which were developed from the ground up and are often not compatible with each other or with more modern payment systems.

1.2.3 Contextual Interoperability

Finally, interoperability can be conceived of in a grounded sense, referring to the ease of access people and businesses have to connect to and use payment networks in their day-to-day activities.

This requires meeting users and businesses where they already are; for example, building on existing financial behaviours, integrating global organisations with widely used local platforms and enabling connections between accounts and services that are already active rather than expecting users to migrate to entirely new systems.

In practice, this can look like enabling interoperability between mobile money providers or linking bank accounts to digital wallets across borders.

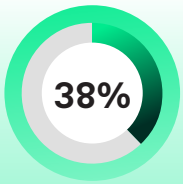
To achieve this contextual interoperability, companies must curate an approach that emphasises adapting to the technological, cultural and infrastructural realities of each market. Rather than assuming that connecting to one dominant provider is enough to claim coverage of a country, those looking to gain access to a country's population must consider the unique payments mix of each market.



1.3 Understanding The Index — Key Findings

1.3.1 Remittance Costs Persist

The Global Cost of Cross-border Payments



Typically pay >3% in fees to send a cross-border payment...



...which is above the UN Sustainable Development Goal of 3% or less for cross-border payments

In 2015, the UN set a sustainable development goal of reducing transaction costs for remittances to under 3% by 2030. Today, the global average cost is reported by the World Bank to be 6.36% of the amount sent, pointing to the significant progress still to be made.

High transaction costs reduce the remittance payments sent to households reliant on them, which can push people towards using informal, riskier channels. Business operations can also be negatively impacted; if transaction and foreign exchange fees for buying products on an overseas platform are particularly high, then consumers may search for alternatives elsewhere, reducing the reach of the business.

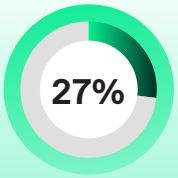
Furthermore, as B2B transactions are far higher on average than consumer payments, high percentage fees can be a significant burden on B2B operations. Finally, employers on gig work platforms may also be put off from employing workers in countries which are difficult or expensive to send to.

One of the most important factors contributing to high remittance prices is a lack of transparency surrounding prices, which makes it difficult for consumers to compare prices against other products. It can also cause unexpected shortfalls on the recipient end if third-party fees like those charged by intermediary banks are not disclosed upfront.

Best practice includes a clear breakdown of currency conversion costs, third-party fees, and transaction fees, as well as showing the full amount that the recipient will receive in their local currency.

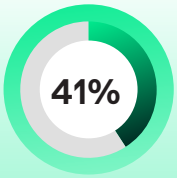
However, international payment service providers often fall short of this, as 41% of people from this survey report that they are not always shown the final amount of the payment upfront.

Speed



of people typically take two or more days to receive cross-border payments

Transparency



of those sending cross-border payments are not always shown the final amount upfront

1.3.2 Users Focus on Speed

Slow cross-border payments negatively impact the cash flow of households and businesses alike.

Problems with speed generally arise within the last mile of payments, such as crediting the payment to the local bank account or transferring to a local mobile wallet. This represents a lack of interoperability with the end account of the consumer on the part of the service provider disbursing the funds, as well as a lack of real-time 24/7 infrastructure.

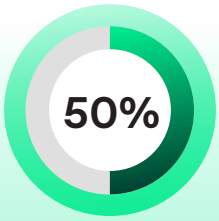
For businesses, cross-border payment speed is key for reducing trapped liquidity and freeing up working capital. Recent global initiatives – such as the launch of SWIFT gpi in 2017 – have led to considerable improvements in cross-border payment speed. Nearly 60% of gpi payments credit within 30 minutes, and almost all settle within 24 hours.

However, improvements are concentrated on mature markets. Lower volume routes and markets with currency controls still have speed limitations.

Those in younger generations are more likely to be impacted by transparency issues. A lack of experience and education surrounding cross-border payments puts them at a disadvantage. To counter this, international payments services targeting Gen Z should ensure that they provide clear cost breakdowns.

A majority of recipients (50%) rank instant transfers as the single most important feature of their current international payments provider. This makes speed the clear priority in the cross-border payments experience, more important than low fees, security, habit, and recommendations from friends/family.

Instant Transfers



Most valued feature of preferred payments provider

This preference is consistent across all regions, though its importance varies significantly. In the Philippines, demand for instant transfers is particularly strong (61%), while in Germany it is notably lower (32%). This variation highlights how local context shapes user priorities. In Germany, where payment speed is usually instant across intra-European transfers, instant payments is not necessarily a competitive differentiator but a baseline expectation.

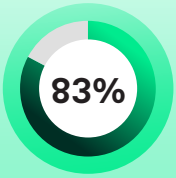
Low fees rank as the second most valued feature, though at a much lower level, with just 13% of respondents identifying it as their top feature. This gap suggests that while cost remains important, many users are willing to trade off higher fees for faster access to funds.

1.3.3 Measuring A Tangible Human Impact

Delays, fees, and uncertainty in international payments cause knock-on social and economic effects to the most vulnerable



Of those dependent on financial support such as remittances,



have experienced issues as a result of delayed payments

Over the past 12 months, 61% of individuals receiving international payments report experiencing at least one issue- such as increased stress, missing bill payments, or borrowing money short term – highlighting how friction in cross-border transactions causes significant knock-on effects.

Inefficiencies in cross-border payment systems translate directly into financial instability. These difficulties affect respondents across all markets, albeit to different degrees.

Over half of respondents have experienced negative social or economic effects from delayed payments, bar Brazil, where only 44% of respondents report issues, while the US is the highest at 77%.

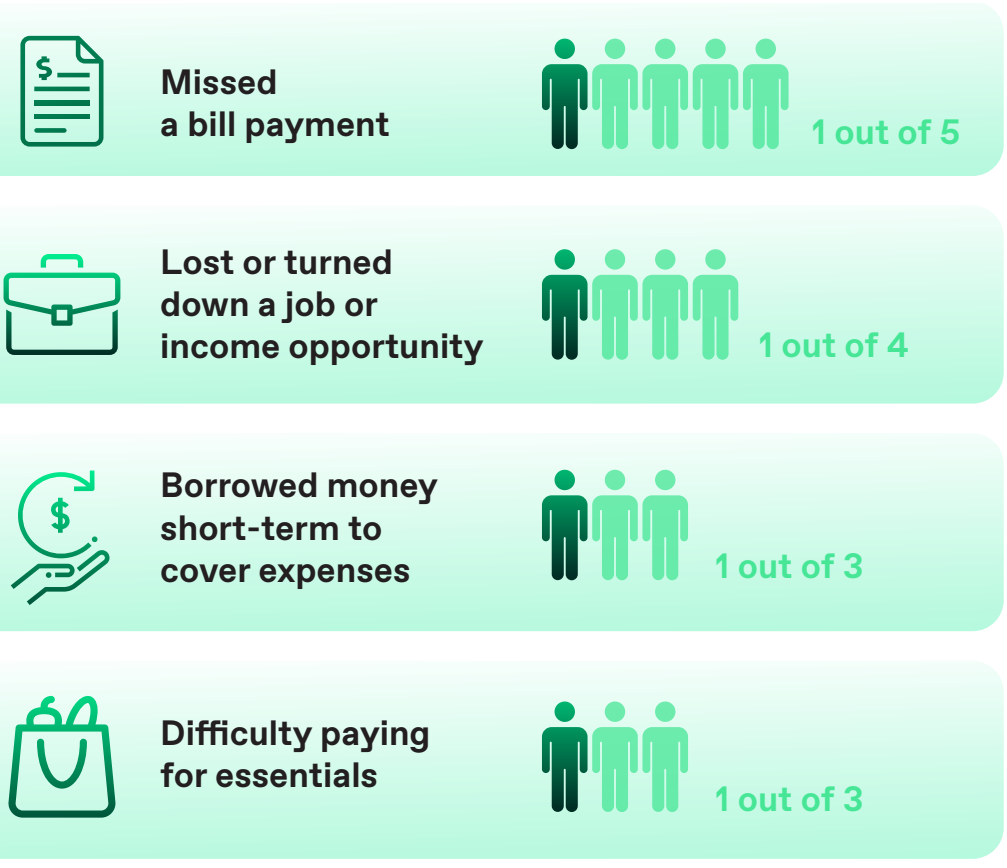
The impact is significantly more severe for those who rely on these payments for essential financial support.

Among recipients dependent on remittances from family or friends, 83% have faced at least one issue, compared to just 26% of those without financial vulnerability. This stark gap underscores how payment inefficiencies disproportionately affect those with the least financial resilience.

Beyond inconvenience, these issues have tangible human and economic consequences. Nearly a quarter (23%) of remittance-dependent recipients say payment problems have caused strained relationships with family members sending support, pointing to the emotional toll of unreliable transfers.

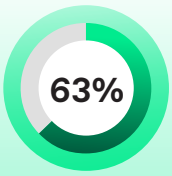
Additionally, 41% report experiencing stress or anxiety as a result of payment disruptions, while one in three (33%) have struggled to pay for essential expenses such as food, rent, or utilities.

Out of those receiving cross-border payments who depend on remittances to make ends meet, delays in international payments have caused:



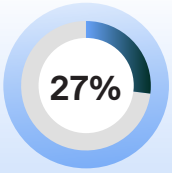
1.3.4 Gig Workers Emerge as Distinct Global Cohort Engaged in Cross-border Payments Impact

Gig Workers



Send or receive money internationally

Non-gig Workers



Send or receive money internationally

Gig workers show markedly higher engagement with cross-border payments than people reliant on other sources of income, driven by both financial necessity and the nature of their income streams.

A key factor is their greater likelihood of supporting others financially across borders: 21% of gig workers report sending money to family or friends who rely on them for regular expenses, compared to just 9% of non-gig workers. This highlights a stronger connection to remittance activity within this group.

They are also more inclined to use international financial tools to manage their earnings. For instance, 11% of gig workers report holding funds in a mobile money account or digital wallet based in a non-resident country, versus only 2% of non-gig workers. This suggests a higher level of comfort with digital, borderless financial solutions, likely reflecting the global nature of gig platforms and client bases.

Underlying these behaviours is the volatility of gig income. Gig workers are more than twice as likely to experience month-to-month income fluctuations (21% vs. 9% of non-gig workers) and also twice as likely to rely on financial support such as remittances (12% vs 6% for non-gig workers).

This instability can drive both the need to diversify where money is stored and how it is transferred, as well as reinforce reliance on cross-border financial networks both for earning and supporting others.

Gig workers are also more likely to experience a variety of issues regarding their cross-border payment experience, which suggests that they are underserved as a community. One such issue is fees: 41% of gig workers pay over 3% in fees to send a cross-border payment, compared to 25% for non-gig workers.

Gig workers, who are more likely to send money to those relying on them, are significantly more likely to pay over 3% in fees when they send an international payment.



Issues with international payments can materially impact the work of gig workers, who are often working for international platforms or completing online freelance tasks for clients overseas.

However, 11% of gig workers reported losing or turning down job opportunities as a result of issues with international payments compared to only 4% of those who do not gig work, which exposes the social reality of gig working.

Companies may withdraw job offers if their platform cannot support payouts to a country. This is highest in the Middle East, where 18% have lost or turned down job opportunities.

Transparency issues are a widespread concern for gig workers when sending payments. Nearly half (41%) report that they are not consistently shown the final amount the recipient will receive upfront, significantly higher than the 26% reported by non-gig workers.

This lack of clarity can make it difficult to plan finances, compare services, or trust that transactions are being handled fairly.

These transparency gaps, combined with relatively high fees, appear to be driving gig workers toward alternative payment technologies. Notably, gig workers are almost three times as likely to have used stablecoins as their non-gig counterparts (23% versus 6%).

This openness towards emerging technologies likely arises from dissatisfaction with current payment systems, which stablecoins can solve due to their instant payments capabilities and negligible on-chain cost.

Together, these shared experiences and behaviours point towards a need to consider gig workers as a group of their own, rather than an extension of the traditional workforce. Their unpredictable income and greater engagement with cross-border payments necessitate specialised payment solutions that are optimised to both accept B2C international payouts and also transfer quickly and transparently to peers across borders.

1.3.5 Stablecoins Emerge as a Middle-leg Settlement Layer for Cross-border Payments

Stablecoins present an attractive value proposition for cross-border payments, as they operate with immediate, direct settlement capabilities at negligible on-chain cost. However, this cost benefit is currently largely negated by the last-mile difficulties with converting stablecoin balances into local currency.



As stablecoin wallets are a relatively new entry into the payments market, there is a lack of infrastructure connecting them to mobile wallets or bank accounts. This limits the adoption of stablecoins at scale, leaving the majority of adopters as crypto natives and those in economies experiencing currency fluctuations.

This is reflected in the survey results, which showed stablecoin adoption was highest in emerging economies. Nigeria stood out for its stablecoin usage: 29% of those surveyed used stablecoins, and the most common reason for usage was to store value (58%).

By contrast, transactional usage remains comparatively limited, with only 9% of those in Nigeria using stablecoins for domestic payments, and 39% for international payments.

Mobile money operators and traditional agent-based money operators are currently best placed to solve the on/off ramp problem due to their ability to enable stablecoin to local currency conversion at the agent level.



M-Pesa has partnered with the ADI Foundation to integrate blockchain-based settlement within its core infrastructure for mobile money operations across 8 countries in Africa. This is in line with the recent implementation of the Virtual Asset Service Providers Act in Kenya, pulling stablecoin operators out of the legal grey zone.

Incumbent remittance providers are responding quickly to the potential of stablecoins in cross-border use cases, deploying stablecoin wallets for their customers.

For example, MoneyGram has launched a custodial wallet designed to bridge the gap between digital and physical currencies. This takes advantage of the existing network in place, letting users turn cash into USDC and withdraw USDC as cash in participating

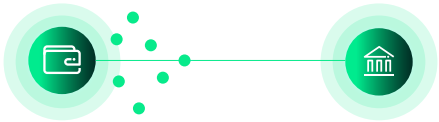
MoneyGram locations, enabling real-time stablecoin settlement if users on both ends of the transaction hold the wallet.

While this cash capability is useful, it does not account for funding or withdrawing USDC to and from bank accounts, mobile wallets, or debit cards, which removes the possibility of using it for payouts or money transfer within the formal banking system.

Due to these on/off ramp inefficiencies, it is unlikely that stablecoins will displace existing systems at this stage, rather operating as a settlement layer embedded within traditional money transfer operators.

Behind the scenes, banks and traditional money operators can eliminate the correspondent banking model by moving transactions onto the blockchain, settling payments instantly and reducing costs while keeping the same familiar user interface.

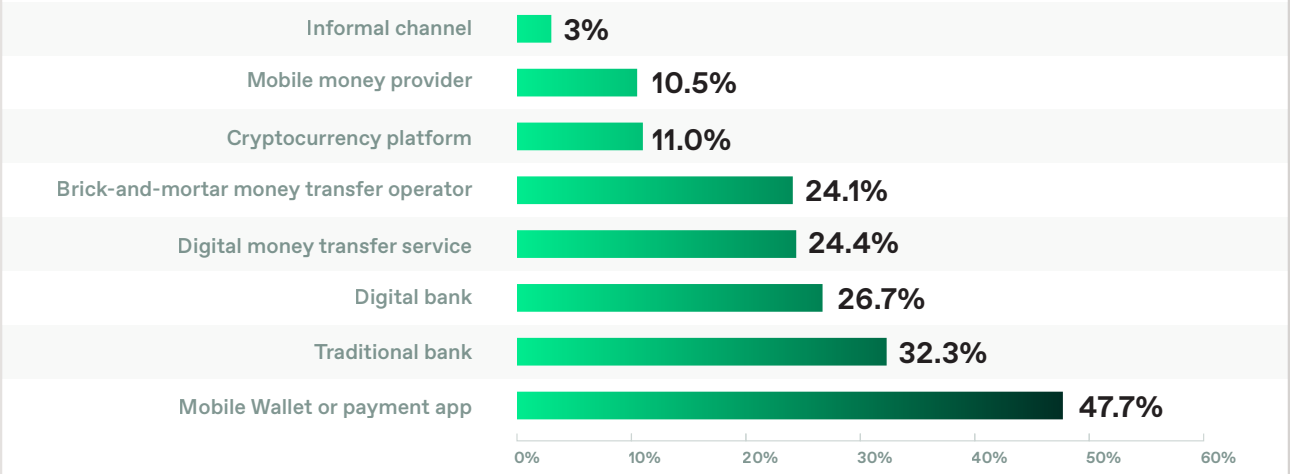
1.3.6 Mobile Wallets Surpass Banks as Go-To for Making Global Payments



Traditionally, banks have operated as the backbone of P2P cross-border payments, providing the underlying infrastructure for moving money between countries. However, their dominance is being increasingly challenged at the user interface level.

Today, mobile wallets and payment apps have become the preferred front end channel, with nearly half of global users who send cross-border payments choosing these platforms to initiate transactions.

Fig. 1.1 Typical Payments Providers for Sending Cross-Border Payments (%, Multi-select), All Countries



Mobile Money Accounts are Growing as an Entrypoint into Formal Finance in Emerging Markets



This reflects a broader change in user expectations. Mobile wallets are designed to offer an intuitive, faster, and more transparent experience compared to traditional banking. Features such as real-time tracking, simplified onboarding and clearer fee displays attract digitally-native users towards mobile wallets.

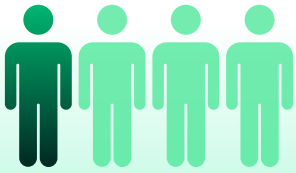
Despite this front-end disruption, banks remain deeply embedded in the payment ecosystem. In most cases, they continue to serve as the primary funding source and settlement layer: data shows that 42% of users fund their cross-border payments directly from a bank account, compared to just 21% who rely on a mobile money balance.

This reflects the necessity of correspondent banking relationships in making cross-border payments; banks have had a long time to build connections across borders, providing them with reach and interconnectedness that mobile wallets have yet to achieve.

Over time, this dynamic could evolve to further disintermediate banks, as wallets improve interoperability by building out their own stored-value ecosystems and payout capabilities.

1.3.7 Ease of Opening Is the Top Factor in Choosing First Financial Account

For many users, the decision to open their first formal financial account is driven primarily by convenience and accessibility. Around 26% say they chose their provider because it was easy to open or sign up for, making simplicity the most important factor overall.



1 out of 4 chose their first financial account because it was easy to open/sign up for

This is closely followed by necessity: 22% report that they chose their account because it was the only option available to them, highlighting persistent gaps in financial access and choice. Social influence ranks third, with 18% selecting a provider based on recommendations or because “everyone they know” uses it.

However, amongst younger users (aged 18–24), this hierarchy shifts. In this group, social influence becomes the leading factor, with 27% choosing their first account based on peer recommendations or because “everyone they know” uses it.

This suggests that younger consumers are more likely to rely on trust within their social circles and community adoption or network effects and that influencer channels could be most effective when promoting products.

Entering the formal financial system allows individuals to build a transaction history, obtain credit, gain interest on savings, and makes it easier to send and receive payments.

What percentage has a mobile money account as their first formal financial account?

India
30%

South Africa
26%



The Philippines
25%



At a systemic level, it improves the distribution of government payments and simplifies tax collection and refunds. Historically, the way to access this has been through the banking system, as salary payouts and loan lending used to be solely in the remit of banks.

However, mobile money accounts now perform many of the same core functions, on top of offering simpler onboarding processes that can be completed entirely on a mobile phone.

Across all surveyed countries, traditional bank accounts remain the top choice for a first formal financial account, with 68% having opted for this as their first account. However, the use of mobile money accounts is growing, particularly in emerging markets.

While fewer than 1 in 10 people open a mobile money account as their first account in the majority of countries, in emerging markets this can exceed 1 in 4. However, mobile money accounts tend to be closed-loop, only allowing transfers with users in the same provider.

Improving integration between banks and mobile money accounts can enable a more inclusive environment by ensuring users can transact freely regardless of their entry point into the system.

The Regional View

2

2.1 Understanding the Regional Picture



It is important to understand the regional differences, as interoperability is in a very different place, depending which market you look at. This section will examine the differences in detail.

2.2 The Americas

2.2.1 Payment Landscape

It is illustrative to compare the largest respective economies in North and South America to understand the diversity of international payment systems and the challenges that can pose, even with successful and established rails.

North America constitutes a diverse payment landscape, united by strong card payment use alongside parallel cash usage for daily purchases, as seen in the US. Meanwhile, Latin America is traditionally cash-heavy, although in economies such as Brazil, bank transfers are replacing cash rather than complementing it.

Where digital wallets have become popular, they are generally pass-through wallets provided by the operating system like Apple Pay and Samsung Pay, which are generally funded by cards.

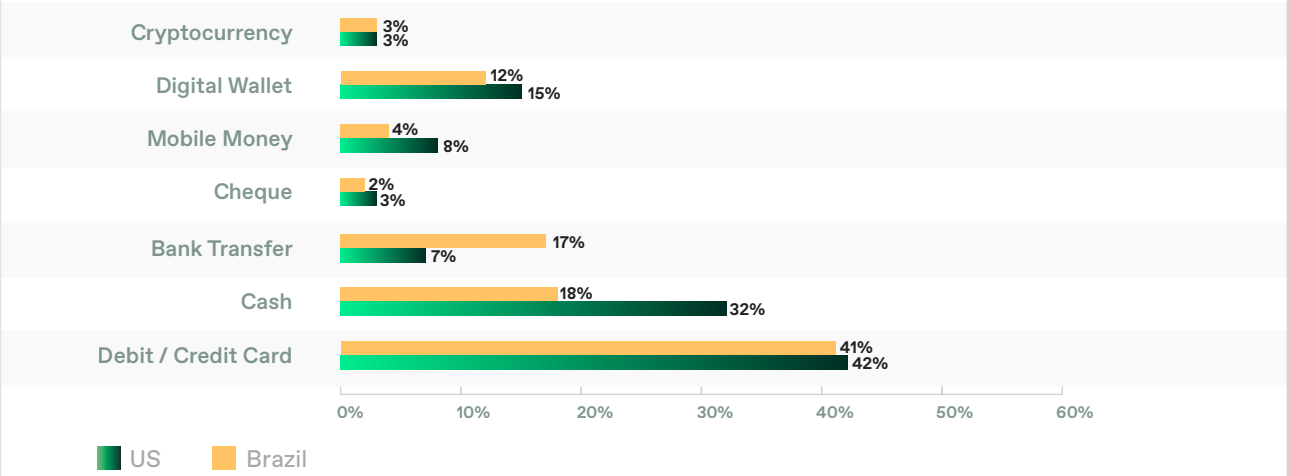
Brazil reports one of the highest usages of bank transfers across the surveyed countries, second only to India: 59% of those in Brazil use bank transfers daily or weekly.

The success of A2A payments is attributable to the creation of PIX by the Central Bank of Brazil in 2019. PIX is a real-time payments system offered by almost every financial institution and fintech in the country, allowing users to transfer money

instantly using PIX keys, or by scanning QR codes at point of checkout. This eliminates the need for card detail entry and card fees.

In comparison, the majority of those in the US stated that they use bank transfers rarely or never (66%). This can be attributed to the disjointed nature of the US banking system, which makes transferring money between banks difficult.

Fig. 2.1 Proportion of Population Reporting Payment Method Usage Daily, Brazil vs US



Although the instant payment service FedNow is attempting to solve this, financial institution adoption has been slow as participation is not mandatory. As such, Americans tend to use closed-loop apps like PayPal or CashApp instead for P2P transactions, hence their higher reported use of mobile money solutions.

2.2.2 Savings and Credit Landscape

Respondents in the US and Brazil show broadly similar financial habits when it comes to saving and accessing credit, with most individuals in both markets relying on domestic bank accounts as their primary store of value.



This reflects the relatively strong penetration of formal banking infrastructure in both countries. However, those in the US are the most likely out of the 10 surveyed countries to report that they do not save or access credit, and the US also has one of the lowest rates of saving in a bank account.

This may reflect a combination of high living costs, lower household savings buffers, and a greater reliance on alternative financial instruments such as investment accounts and credit cards.

Fig. 2.2 Methods of Saving or Accessing Credit, % of survey respondents: Brazil vs US

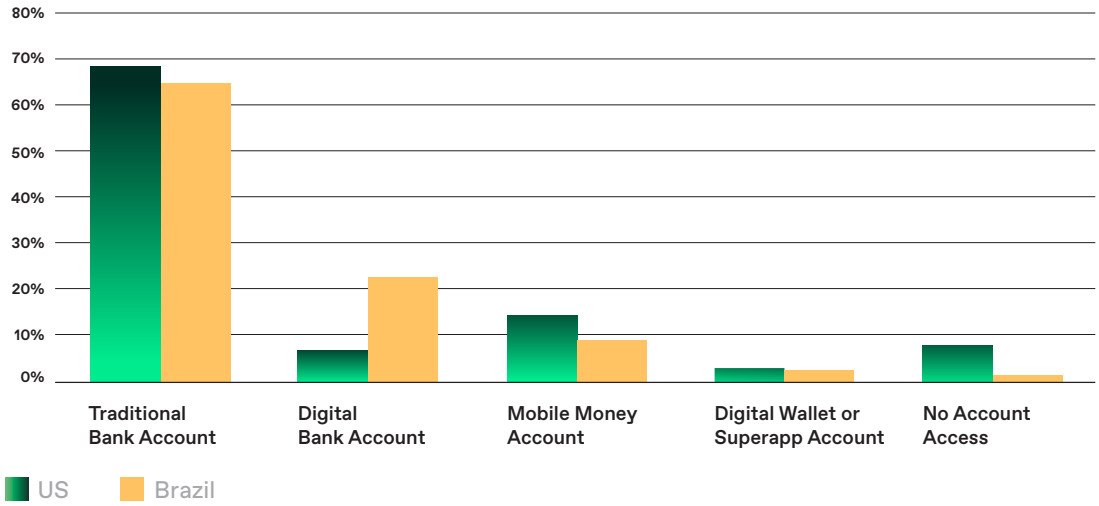
Method of Saving or Accessing Credit	US	Brazil
Bank savings account in the resident country	53%	60%
Bank savings account in non-resident country	7%	6%
Money saved in a mobile money account or digital wallet in the resident country	17%	40%
Money saved in a mobile money account or digital wallet in non-resident country	6%	10%
Cash savings kept at home	25%	14%
Informal lenders (friends, family, community members)	5%	4%
Formal loans from banks or other financial institutions	8%	15%
Buy Now, Pay Later (BNPL) services	9%	3%
Credit from shops or merchants	7%	9%
I do not save money	15%	8%
I do not borrow money	15%	6%

A key divergence emerges in the use of mobile money and digital wallets. In Brazil, more than twice the proportion of respondents report saving through domestic digital wallets compared to the US.

This points to the growing influence of mobile-first financial ecosystems in Brazil, where tools like instant payments and app-based accounts are increasingly central to everyday financial management.

In contrast, US consumers appear to treat digital wallets more as transactional tools in their daily payments rather than as primary savings accounts.

Fig. 2.3 First Formal Financial Account (%), Brazil vs US



The most common entry point into the formal financial system in both the US and Brazil is a traditional bank account, with adoption levels broadly similar across the two markets. This suggests that, despite differences in fintech maturity, conventional banking still plays a foundational role in onboarding consumers into financial services.

However, a clear divergence emerges when looking at digital-first entry points:

In Brazil, 23% of respondents report opening a digital bank account as their first formal financial account, more than three times the proportion seen in the US (7%).



This is attributable to the strength and reach of Brazil's neobank ecosystem, particularly regarding fintechs such as Nubank.

This is a wholly-digital solution created to disrupt the fintech space by offering a credit card that can be fully managed on the mobile app, which had such large uptake that it has become the largest private financial institution in Brazil.

More broadly, Brazil records the highest incidence among all surveyed countries of consumers starting their financial journey with a digital bank account, suggesting that in emerging markets, fintechs are replacing traditional banks at point of entry.

This varies drastically according to age: 61% of 18-24 year olds in Brazil report a digital bank account as their first formal account, suggesting that the displacement of traditional banks will only intensify over time.

Fig. 2.4 Incidence of 18-24 year olds opening a digital bank account as their first formal account (%), Split per region

42%	20%	10%	9%	7%
The Americas	Europe	Middle East	APAC	Africa

2.2.3 Cross-border Payments

The most common payments provider to use for international transfers is a mobile wallet or payment app. Most people used more than one payments provider: a traditional bank was the secondary international provider for those in the US, while a digital bank was the second most popular for Brazilians.

This reflects the existing strength of digital bank providers in Brazil; digital bank accounts are often more agile than traditional banks and offer cross-border capabilities within their banking apps.

While traditional banks are still widely trusted for cross-border transfers, digital neobanks tend to be more agile with product offerings.

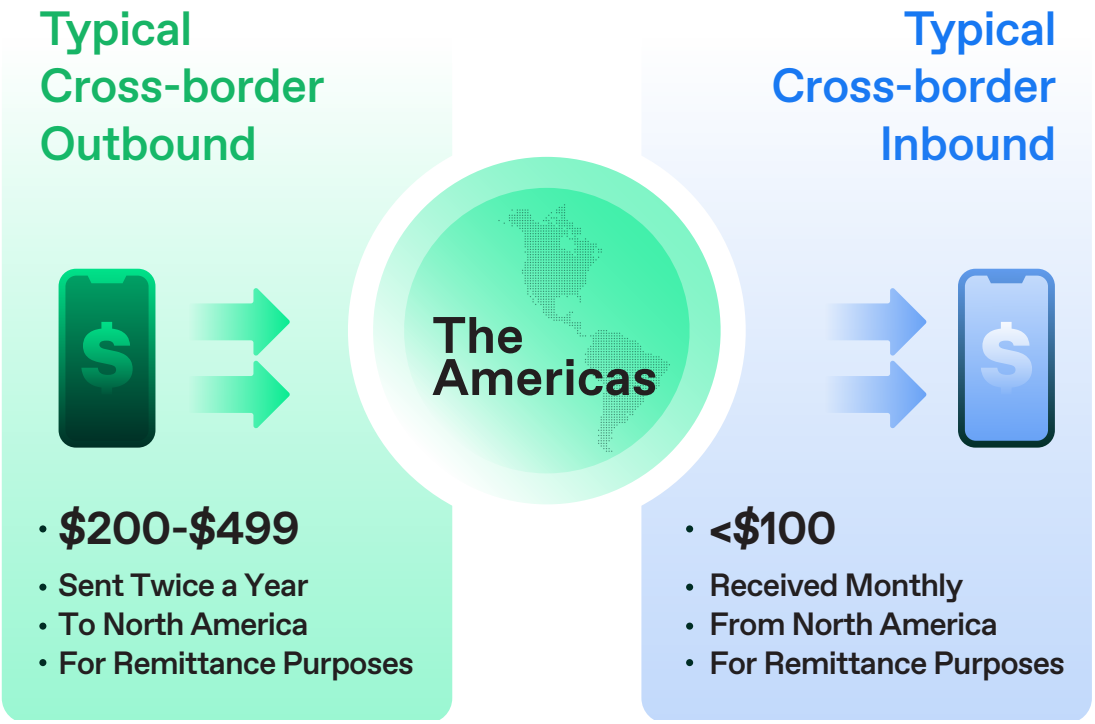
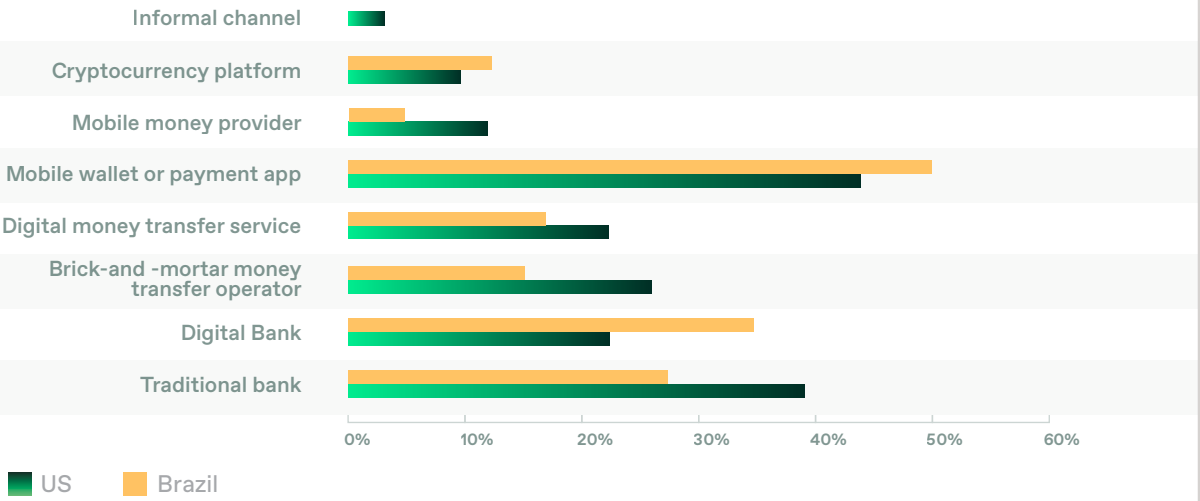


Fig. 2.5 Payments Provider Used to Send Cross-border Payments: Brazil vs US

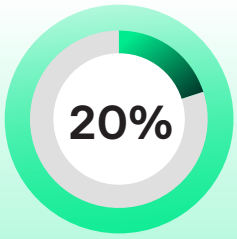


The payment method used to fund international payments generally reflects the broader daily payments landscape, with one considerable difference: mobile wallet and payment app usage is the top method used to send money internationally, while it is only the third most popular method for domestic payments in both countries.

The US reports the highest use of cash for funding international payments among the surveyed countries, at 20% compared to a global average of 6%.

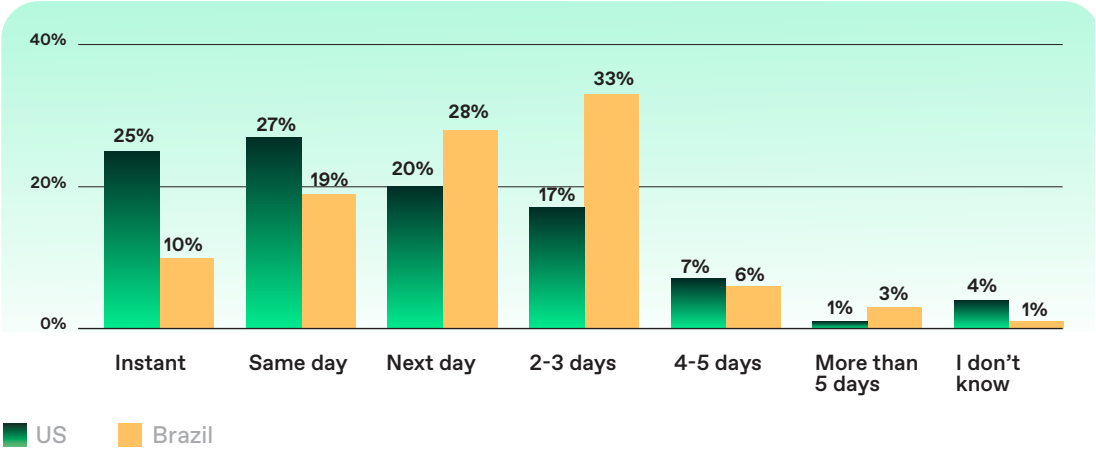
This likely reflects broader day-to-day cash usage and highlights the continued importance of maintaining cash-in and cash-out capabilities, even in markets with high levels of formal banking penetration and widespread adoption of digital payments.

In the US



Funded cross-border payments with cash

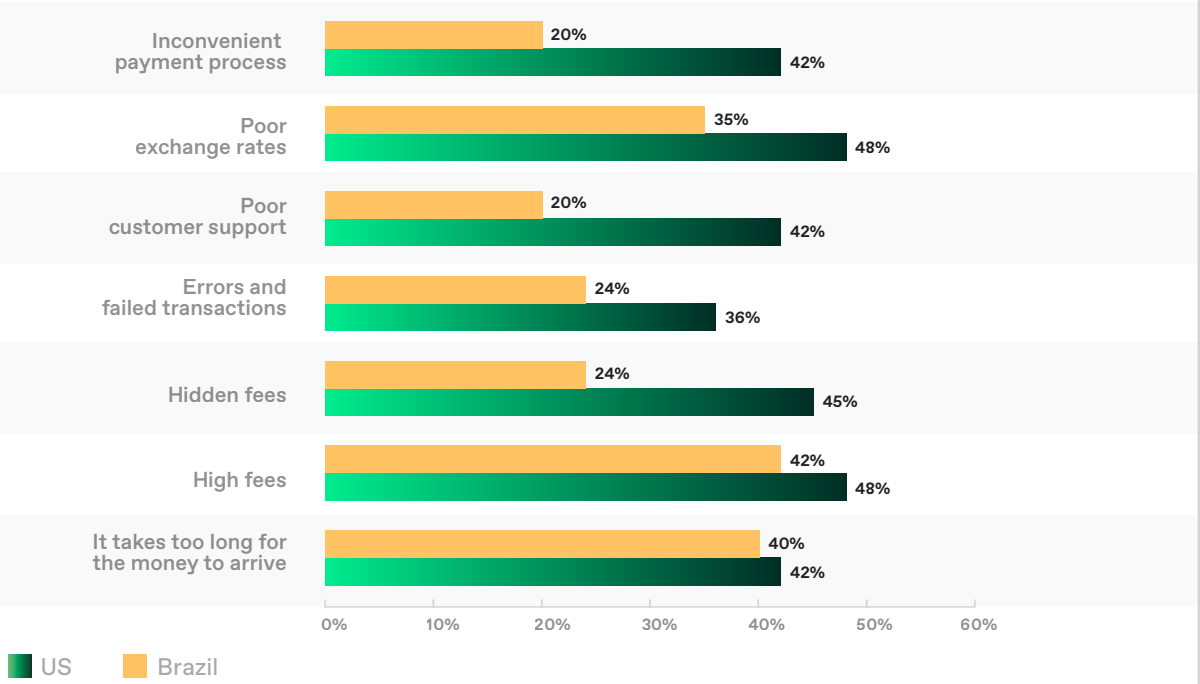
Fig. 2.6 Typical Length of Time Taken to Receive a Cross-border Payment (%), Brazil vs US



The time taken to receive a cross-border payment in the US broadly corresponds to the global average, whereas Brazil records one of the longest waits out of all 10 surveyed countries, as 71% of people receiving international payments say it typically takes 2 or more days to receive, compared to a global average of 46%.

This reflects the low cross-border connectivity score of Latin America, particularly in the instant payments metric. Cross-border payments within Latin America are subject to inefficiencies due to complex FX regulations and strict currency controls in countries like Brazil and Argentina, which can delay the passage of payments passing through correspondent banks.

Fig. 2.7 Issues Experienced Sometimes, Often or Very Often When Sending International Payments, Brazil vs US



Compared to other regions, individuals sending money internationally from the US are the most likely to report hidden fees and poor customer service. This matches the finding that those in the US are least likely out of all surveyed countries to report usually being shown the final amount that will be received upfront – 52% were not always shown the amount upfront, compared to a global average of 41% and 36% of those in Brazil.

Across other issue categories, US senders also report disproportionately high levels of dissatisfaction, second only to India. This pattern is notable given that reported transfer times and fees are slightly below the global average. Taken together, this suggests a disconnect between objective performance and user perception, pointing to an expectations gap. While the service may be relatively efficient and competitively priced, a lack of transparency or unmet service expectations may be driving negative experiences.

2.2.4 Payment Preferences

US and Brazil share the same values regarding features they most value about their current payments provider, although these differ according to degree. Over half of Brazilian respondents ranked quick transfers first out of ten possible options, which may reflect the widespread nature of PIX increasing sensitivities to payment speed, as well as the current delays in cross-border payments.

Fig. 2.8 Top Ranked Values of International Payments Provider, Brazil vs US



2.3 Middle East

2.3.1 Payment Landscape

The Middle East is a diverse region, with significant economic and financial variety both between and within many of its countries. The Kingdom of Saudi Arabia is one of the region's largest economies and a good representation of its current payment capabilities.

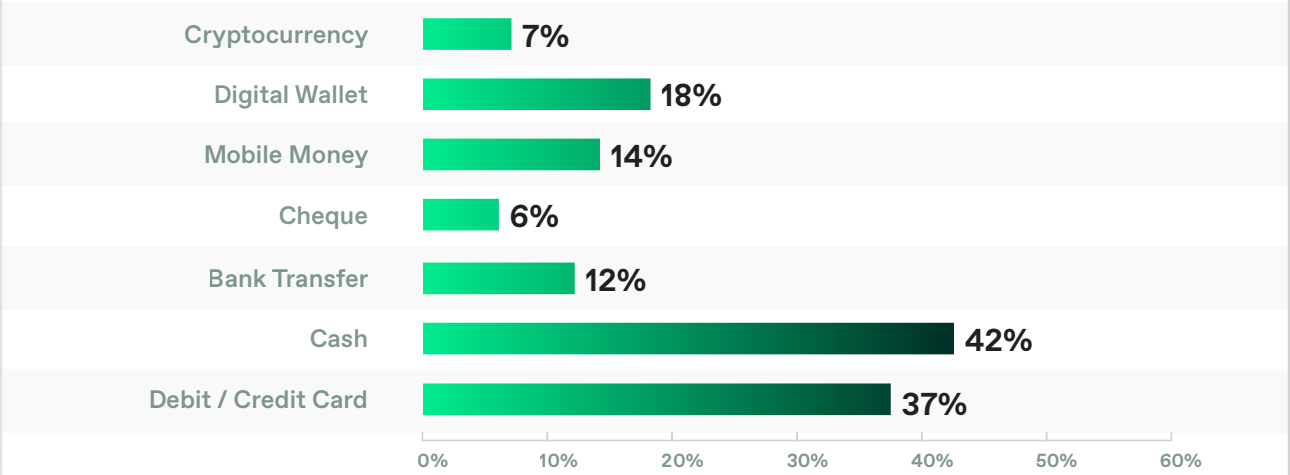
Across the Middle East, high network connectivity and widespread smartphone usage as seen in this Index is reflecting market readiness for digital payments growth in a cash-heavy environment. 72% of those in the Kingdom of Saudi Arabia (KSA) report daily or weekly usage of cash, making it the most used payment method across the region.

In attempts to reduce cash use in favour of digital payment, governments in the Middle East are investing considerable amounts in digital payments strategies. For example, the government of KSA aims to make 70% of all payments digital by 2030 and have provided a sandbox for fintechs to test their payment solutions.

The Interoperability Index points to the existing groundwork of digital infrastructure, laying the foundation for these government initiatives to be successful in the near future.

Cards remain dominant in the region as the second most used payment method in day-to-day payments, reflecting the penetration of traditional banking systems. This suggests that newer digital wallet solutions such as STC Pay and BayanPay have not yet broken into the daily payments usage of the majority of the population. However, readiness indicators – such as widespread mobile ownership – indicate that the region is in a good position to reach government goals for digital payments in the near-future.

Fig. 2.9 Reported Use of Payment Methods Daily, (%), Saudi Arabia



2.3.2 Savings and Credit Landscape

While saving via a bank account is the most popular choice, less than half of the adult population of KSA save money in a domestic bank savings account. This points to the importance of providing interoperability between mobile money and digital wallet savings accounts for those with no alternative provider.

Those in the Middle East also report the highest rate of saving money in foreign accounts, which reflects both the diaspora population and the high overall engagement with cross-border payments.

This reinforces the need for interoperability regarding 'me-to-me' payments across borders. Those with their savings diversified across multiple countries may have difficulty switching between them, gaining a centralised view of all their accounts, or accessing liquidity when necessary.

Fig. 2.10 Methods of Savings and Accessing Credit: Saudi Arabia

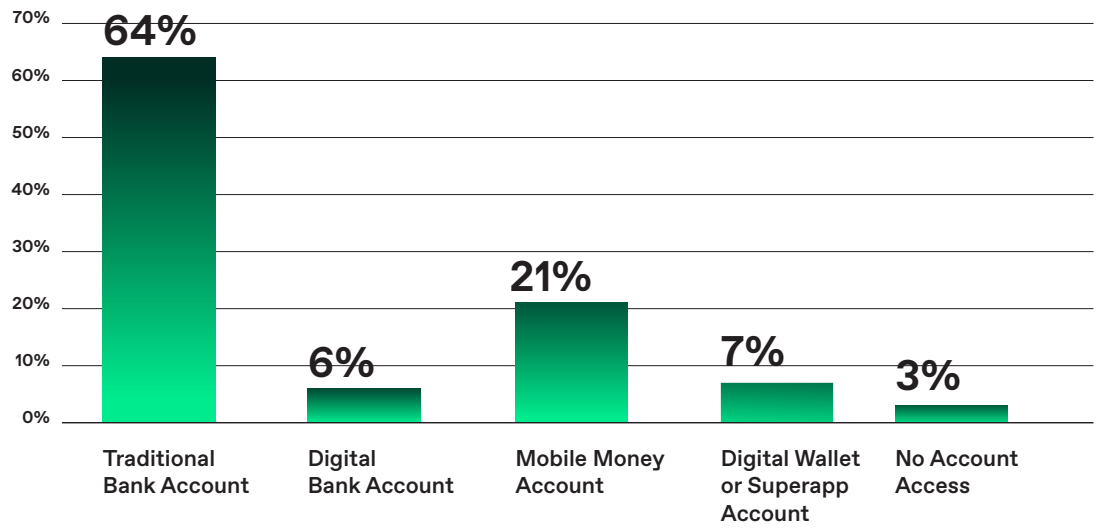
Method of Saving or Accessing Credit	Kingdom of Saudi Arabia
Bank savings account in the resident country	45%
Bank savings account in non-resident country	13%
Money saved in a mobile money account or digital wallet in the resident country	27%
Money saved in a mobile money account or digital wallet in non-resident country	17%
Cash savings kept at home	26%
Informal lenders (friends, family, community members)	8%
Formal loans from banks or other financial institutions	8%
Buy Now, Pay Later (BNPL) services	13%
Credit from shops or merchants	7%
I do not save money	15%
I do not borrow money	10%

To solve this problem, adopting open banking architecture and interoperable technical standards is necessary to enable third parties such as budgeting and centralised finance apps to connect to banks across the region and display data in one app or dashboard.

While the majority of those in KSA opened a traditional bank account as their first formal financial account, in line with the global average, respondents in KSA tend to enter the financial system much later.

Only 3% open an account before the age of 18, and a quarter of the population open their first account between 25-30, which points to the youth population being underserved in KSA. Another driver could be the prevalence of cash in the region, which means that people have less of a need for digital payment methods like cards or digital wallets for their daily activities. However, this means that the population is missing out on gaining interest on their savings and building a transaction history, which could impact their financial prospects later down the line.

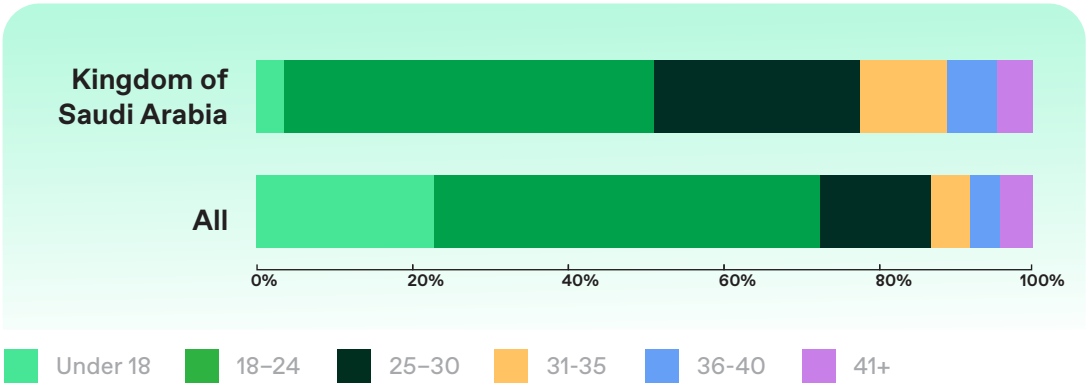
Fig. 2.11 First Formal Financial Account, (%), Saudi Arabia



Mobile money accounts are an important entry point into formal financial services, particularly for young adults entering later than the global average. 31% of 25–30-year-olds opened a mobile money account as their first account, which is higher than those in the younger age ranges.

This suggests that mobile money accounts have a unique appeal for those who have previously been unable or unwilling to open a financial account.

Fig. 2.12 Age of Opening First Formal Financial Account, Saudi Arabia vs All Responses

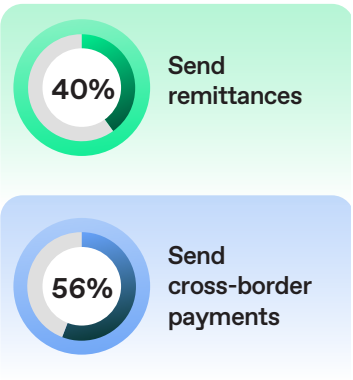


2.3.3 Cross-border Payments

The Middle East is home to a huge diaspora community, which facilitates cross-border payments in the form of remittances, and income stored across borders in the form of rental properties and investments. Just over half are sending payments to other Middle Eastern countries (53%), and North Africa is the next most popular destination (14%).

As a result, this region is highly engaged in cross-border payments, particularly remittances. The scale of these transactions highlights the economic interdependence within the region and the importance of efficient, low-cost transfer mechanisms.

In KSA



The Middle East has the heaviest usage of brick-and-mortar money transfer operators than other regions, almost double the global average of 24%. This reflects urban concentrations and easy access to brick-and-mortar providers, as well as potentially indicating that the region is underserved in the digital international payments space.

Despite high daily usage of cash, KSA residents are the least likely to use cash for international transfers. Instead, they primarily fund cross-border payments with bank transfers (46%) or mobile money balances (23%). This could be due to high cash conversion rates and also suggests that interoperability between banks makes bank transfers a convenient option.

Notably, nearly three times as many people use mobile money balances to fund cross-border money transfers as those sending money directly via mobile money providers. This indicates a high acceptance of mobile money balances amongst brick-and-mortar providers in KSA, which are the most popular type of payments provider in the region.

Typical Cross-border Outbound

- **$100-$199**
- Sent Monthly
- To Other Middle Eastern Countries
- For Remittance Purposes

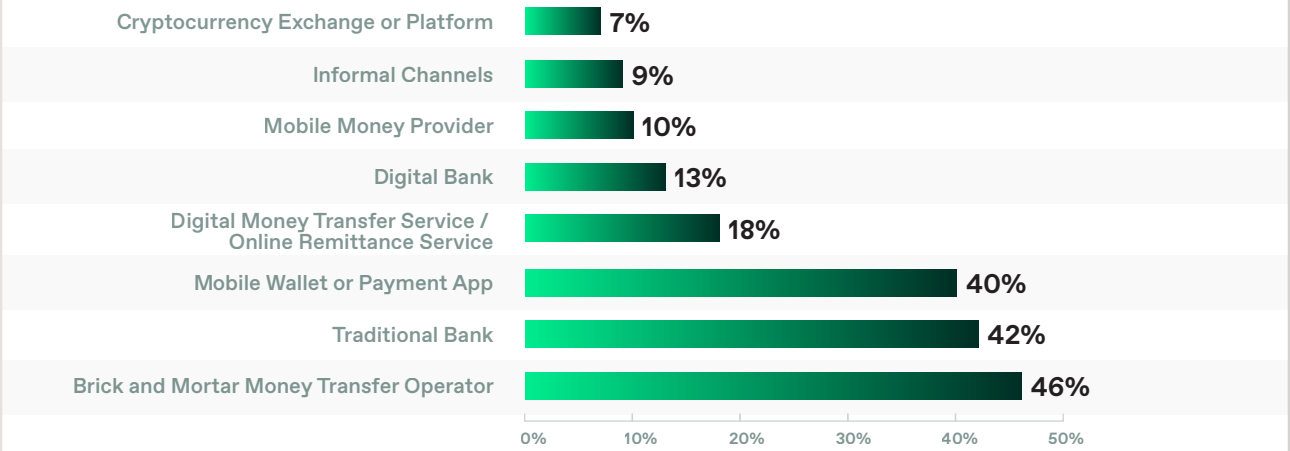


Typical Cross-border Inbound

- **<$100**
- Received Bi-Monthly
- To Other Middle Eastern Countries
- For Personal Remittance

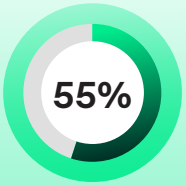
It also indicates a deficit of services by mobile money providers; there is a strong subsection of users using mobile money balances, yet this may incur extra fees as they are transacting outside of the network provided by their mobile money provider.

Fig. 2.13 Payments Providers Used to Send Cross-border Payments (% of population reporting usage), Saudi Arabia



Just over half of cross-border payments made to those in KSA are received instantly or the same-day. This reflects the linkage of fast payment systems across the Middle East, as half of payments sent from KSA are sent to other Middle Eastern countries. Initiatives such as Buna, the multicurrency clearing and settlement system of the Middle East, help

In KSA



Receive payments instantly or same-day

enable this speed by connecting financial institutions to send and receive payments quickly and at low cost.

Saudi Arabia exhibits a cost distribution broadly in line with the global average, as reflected in its Interoperability Index score. However, high fees remain a significant pain point: 52% of individuals sending money internationally report this as a key issue.

2.3.4 Payment Preferences

As in other regions, the majority of respondents say that they value quick transfers the most in their current payments provider over characteristics like security, convenience, and habit. Transparent fees are rated as slightly more valuable than lower fees, indicating a desire from respondents to be able to assess fees.

Figure 2.14: Top Ranked Values of International Payments Provider, Saudi Arabia

Saudi Arabia (Actual)	Quick Transfers	Transparent Fees	Lower Fees
	58%	12%	11%



2.4 APAC

2.4.1 Payment Landscape

The Asia-Pacific Region encompasses a vast range of payment landscapes and economies, shaped by a mix of advanced digital economies and fast-growing emerging markets. Card payments are popular in markets such as Japan, South Korea, and Singapore, with strong infrastructure supporting contactless NFC and instant transactions.

Meanwhile, in Asia's three most populous countries, we see China and India leading global adoption of mobile-first payments and super-app ecosystems, driven by platforms like Alipay and rails like UPI, while in the Philippines mobile wallets like GCash and mobile money initiatives are surpassing traditional banking infrastructure like card use.

These countries each show distinct payment profiles, united only by their relatively low use of debit and credit cards compared to others around the globe.

Those in the Philippines have the highest use of cash globally (83%), which is reflective of the geography of the country. As the population is spread across thousands of islands, establishing strong banking infrastructure is difficult. Their low digital infrastructure score also partially explains this phenomenon: internet connectivity is also sporadic and there are issues with speed, which also makes mobile payments unreliable.

Finally, cash allows payments to remain resilient throughout natural disasters. However, this is set to change in the near-future, as the Philippines has become the first SEA country with satellite-to-phone technology.

This boost in its digital infrastructure is likely to fuel mobile payments in the near future, potentially reducing cash use. Until these improvements in digital infrastructure manifest, those looking to reach recipients in the Philippines should focus on expanding cash-out agent networks.

On the other end of the spectrum, only 15% of those in China use cash daily, reflecting its shift to a largely cashless society. Instead, consumers have almost entirely shifted to a mix of digital wallet use or a debit or credit card.

Fig. 2.15 Proportion of Population Reporting Usage of Payment Method Daily (%), Asia Pacific

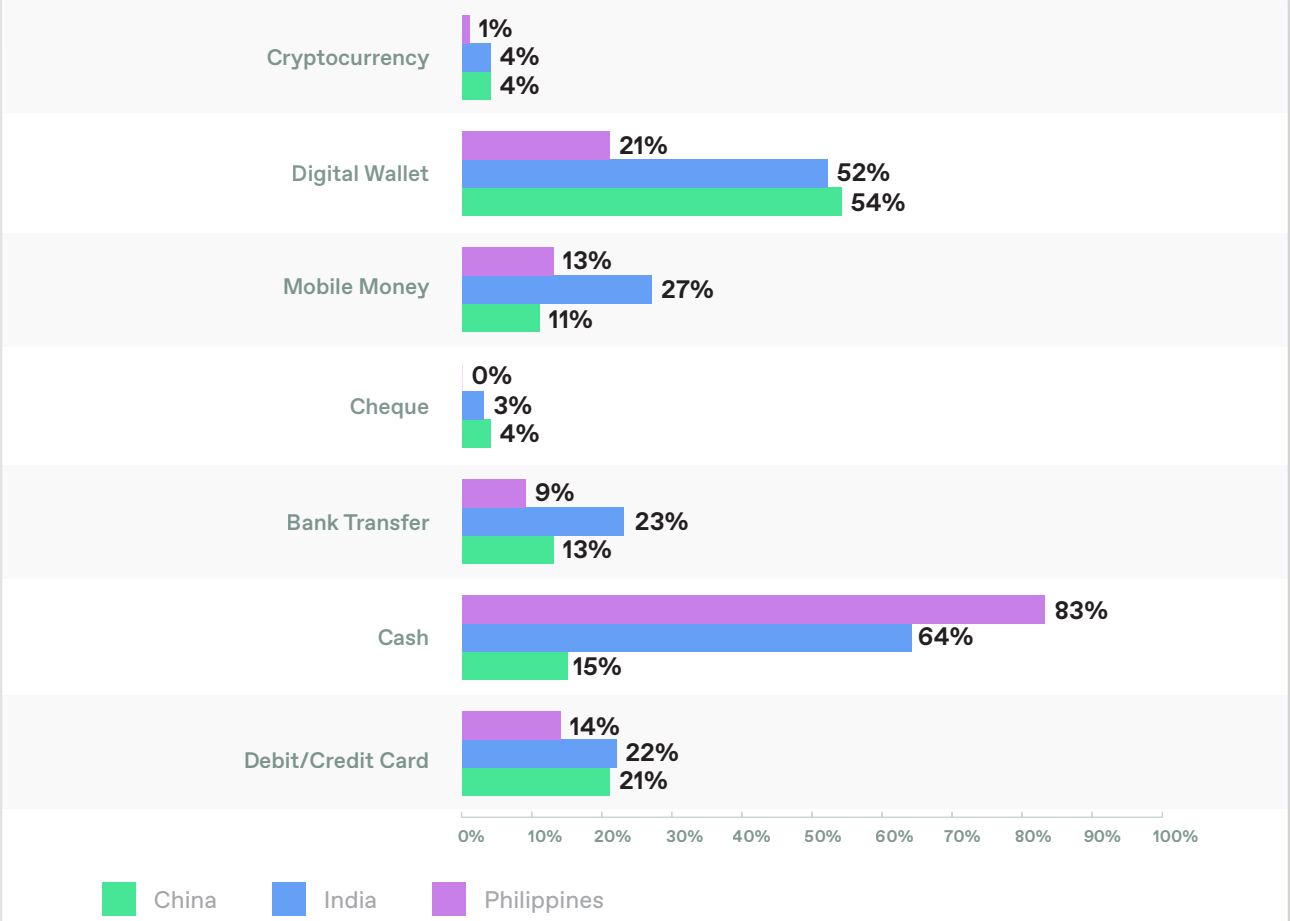
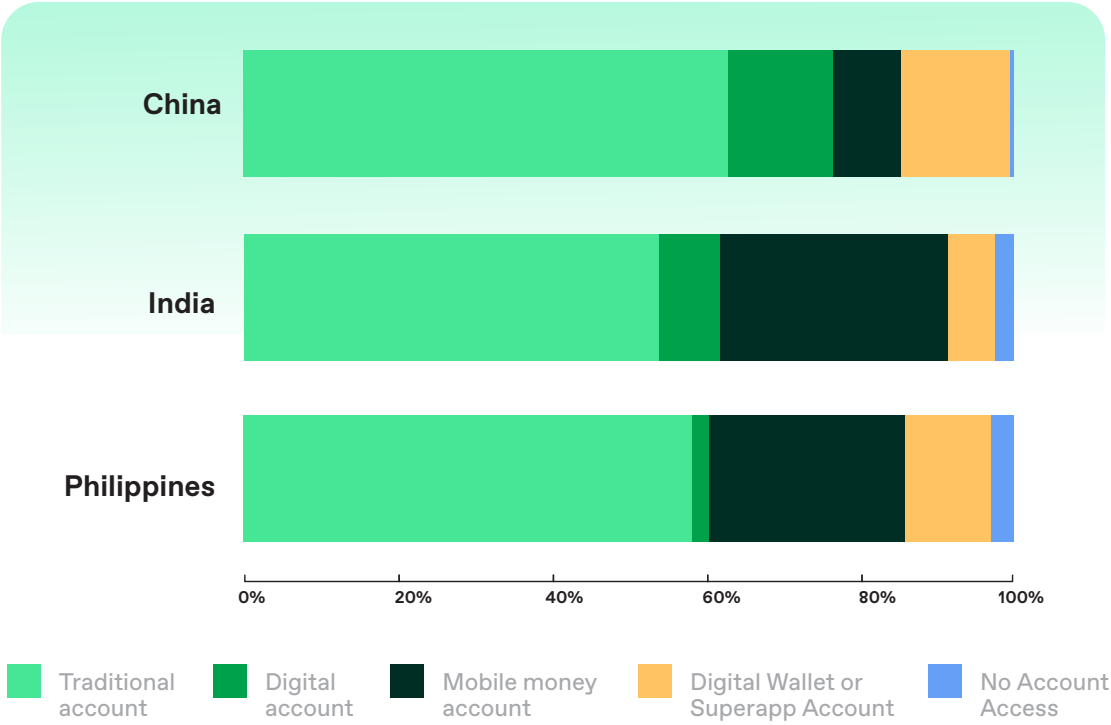


Fig. 2.16 First Formal Financial Account Opened, by Account Type, Asia Pacific



2.4.2 Savings and Credit Landscape

This region exemplifies the new face of financial inclusion. Only very few of those surveyed did not have access to a financial account (2%, which is in line with the average across all surveyed countries).

However, owning a formal financial account does not fully reflect being fully engaged with the financial system: 47% of those in India and 45% of those in the Philippines report cash savings kept at home as a method of saving money.

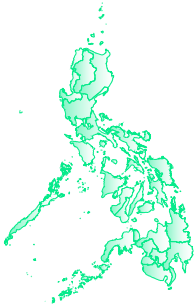
Due to the high account ownership, this likely reflects choice rather than a lack of access. A lack of security or full trust in the financial accounts available to them as well as a range of needs including quick liquidity or the necessity of offline, emergency, phone-less payment methods may drive people to keep cash at home.

A traditional bank account remains the most common first financial account across much of the population, broadly aligning with the global average and reflecting the continued centrality of formal banking systems in financial inclusion.

However, mobile-first ecosystems are increasingly shaping entry into formal finance across all three countries. India and the Philippines stand out for having the highest proportions of individuals whose first account is a mobile money or digital wallet account, while China reports the highest uptake of digital wallets or superapps as the first account.

This is pronounced within younger users. In China, 28% of those aged 18-24 opened a digital wallet or super-app account as their first formal financial account, which is double the average across all age groups in the country. This displays the strength of appeal of super-apps to younger generations. This trend is even stronger in the Philippines:

In the Philippines, 40% of 18–24-year-olds reported opening a mobile money account as their first formal financial account, making it more common than traditional banking.



This is a meaningful signal of a structural shift in financial entry points. Mobile money platforms are effectively functioning as primary financial rails for younger users, making it vital to form unified financial identity and interoperable payment infrastructure.

Merchants, platforms and financial providers should ensure that they accept both bank and mobile money-based transaction histories and payments interchangeably. Without this capability, youth may end up being disenfranchised within the financial system.

Fig. 2.17 Methods of Saving and Accessing Credit (%, Multi-select), Asia Pacific

Method of Saving or Accessing Credit	China	India	Philippines
Bank savings account in the resident country	97%	85%	67%
Bank savings account in non-resident country	7%	5%	3%
Money saved in a mobile money account or digital wallet in the resident country	44%	39%	57%
Money saved in a mobile money account or digital wallet in non-resident country	6%	9%	7%
Cash savings kept at home	35%	47%	45%
Informal lenders (friends, family, community members)	4%	10%	6%
Formal loans from banks or other financial institutions	27%	12%	14%
Buy Now, Pay Later (BNPL) services	14%	15%	21%
Credit from shops or merchants	4%	15%	9%
I do not save money	1%	2%	3%
I do not borrow money	4%	3%	4%

Those in China also report having the highest choice between accounts. Globally, 22% of people choose their first account on the basis that there are no others accessible. In China, this halves to 11%, indicating a highly competitive environment.

Almost all of the respondents from China reported having a bank account, which was the highest positive response rate out of all countries.

Recent policies have enabled new financial service providers to serve previous unbanked segments in villages and towns- for example, the Postal and Savings Bank of China has continued expanding, and now serves over 660 million customers through approximately 40,000 outlets in remote regions.[1]

[1] About PSBC, Postal Savings Bank of China, https://www.psbc.com/en/about_psbc/

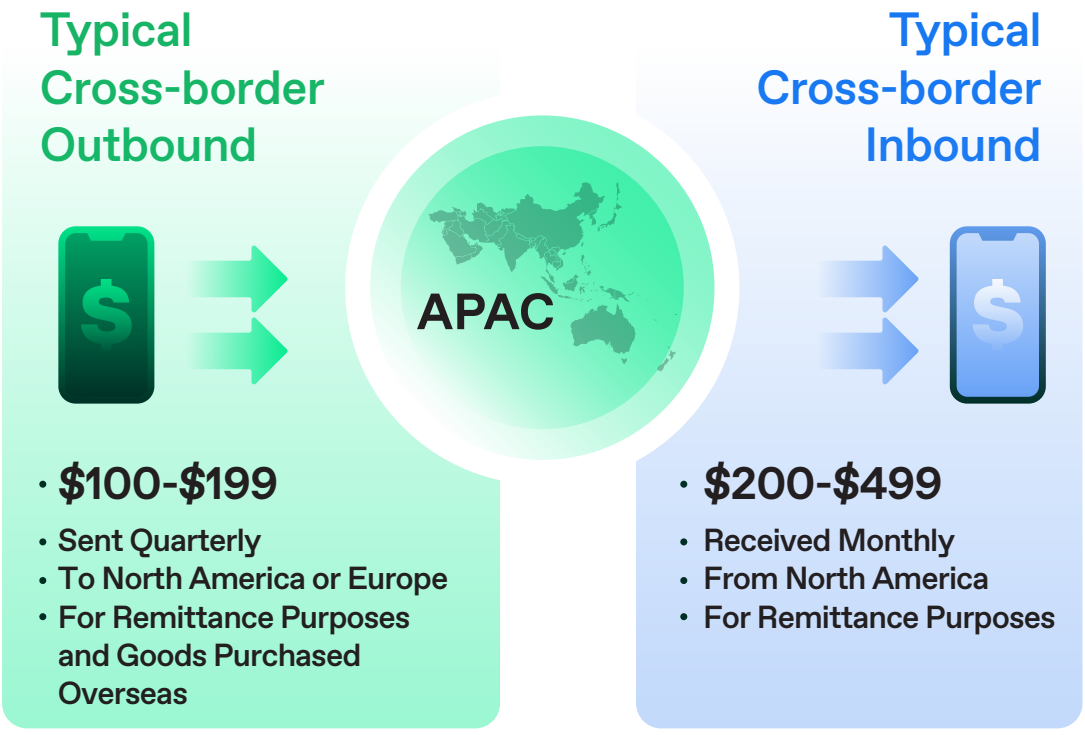
The success of this shows the value in meeting customers where they are, such as by providing kiosks in places they already shop rather than requiring users to navigate unfamiliar technology to sign up.

Residents in Asia-Pacific are the strongest users of digital wallets and mobile money accounts to save money; 46% overall save money this way. Even countries with near-universal bank savings account adoption like India and China still save money this way, showing that mobile money accounts aren't a substitute for bank accounts, but are used in parallel.

2.4.3 Cross-border Payments

Cross-border payments in APAC are critical to global financial flows, supporting families and businesses across borders. This is especially evident in India and the Philippines, which are high remittance receivers: 65% of those in the Philippines and 57% of those in India have received money from overseas in the past year.

These high rates underscore the structural importance of cross-border transfers in sustaining household incomes across the region.

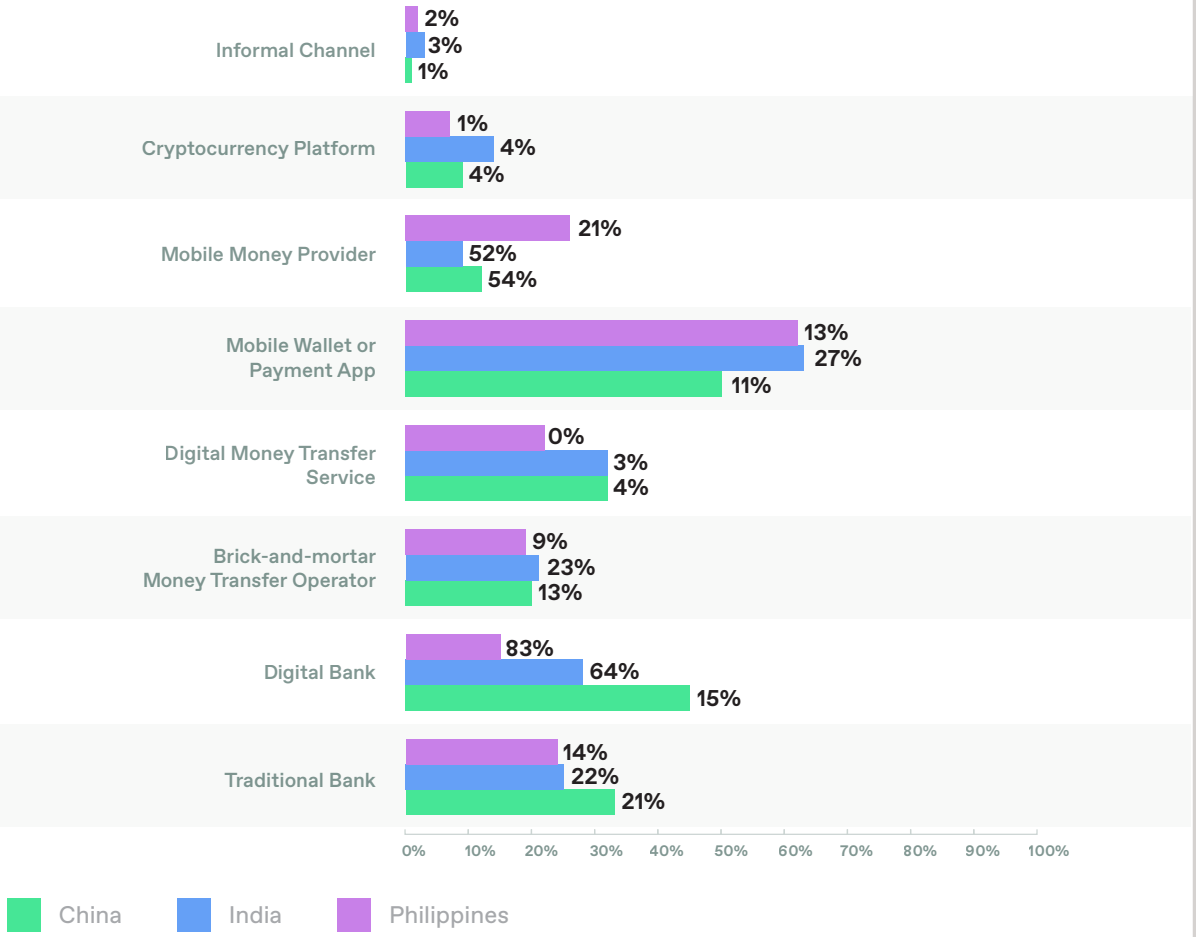


User behaviour in these markets reflects a fragmented and multi-provider payments ecosystem. Rather than relying on a single provider, individuals commonly use multiple services.

Mobile wallets are the most widely used channel for sending international transfers across all three countries, reflecting the central role of digital payment methods in cross-border payments.

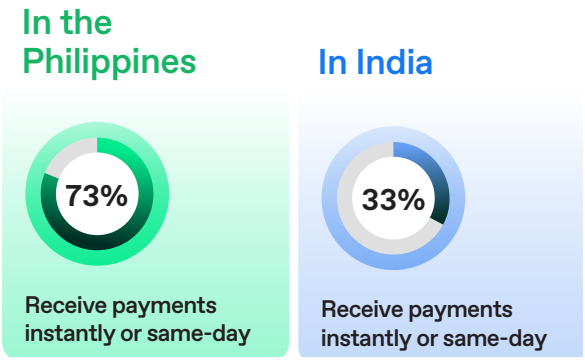
Secondary preferences vary by market: in China, digital banks are the next most commonly used providers, while in the Philippines users typically turn to mobile money providers, and in India digital money transfer services are the second most common option.

Fig. 2.18 Payments Provider Used to Send Cross-border Payments, Asia Pacific



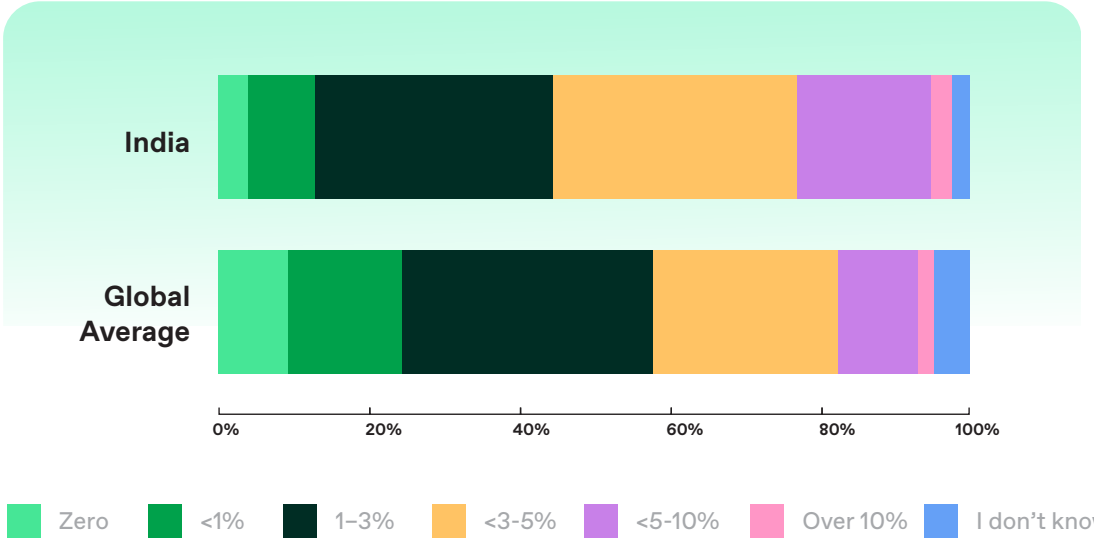
The speed of the cross-border payment varies drastically by country, highlighting the fragmented nature of payments infrastructure in the region.

In the Philippines, 73% of recipients typically receive cross-border payments instantly or on the same day, compared with just 33% in India.



This reflects the strong connections between money transfer services in the Philippines and the real-time payments system, InstaPay, enabling people locally to experience faster payments than their counterparts.

Fig. 2.19 Fees Typically Paid in a Cross-border Transfer, by % of Population, India vs Global Average



As well as experiencing the slowest payments, those in India also report paying the most in fees out of all the surveyed countries: 54% typically pay over 3% in Fees, which is significantly above the UN goals for sustainable development.

This reflects their low score in cross-border connectivity in the Interoperability Index, particularly for the last mile of the transactions.

This is partially driven by a lack of connections to the UPI system to other domestic real-time payments systems. UPI's functionality is concentrated within its domestic borders, while cross-border payments have remained dependent on traditional correspondent banking networks or card schemes. UPI currently has connections with China's Alipay+ platform and Singapore's PayNow, and The Reserve Bank of India is working to interlink UPI with TIPS in the Eurosystem.

However, connecting UPI to each domestic payment will be a lengthy and technically complex process. Until then, it is up to payment service providers to connect with their counterparts in other nations to enable low-cost and speedy transactions.

For example, Paytm, India's largest digital payments app, currently limits its transfers to Indian bank accounts only. However, since December 2025 it has been licensed by the RBI as a payment aggregator for offline and cross-border transactions, which creates the potential for integrations with other foreign eWallets, money transfer services, and mobile money operators.

2.4.4 Payment Preferences

Respondents in all three countries display a strong preference for quick transfers over other characteristics, although this preference is most strongly concentrated in the Philippines.

This is likely driven by the slower-than-average wait times for cross-border payments to arrive in the recipient account, increasing the value that users place on speed.

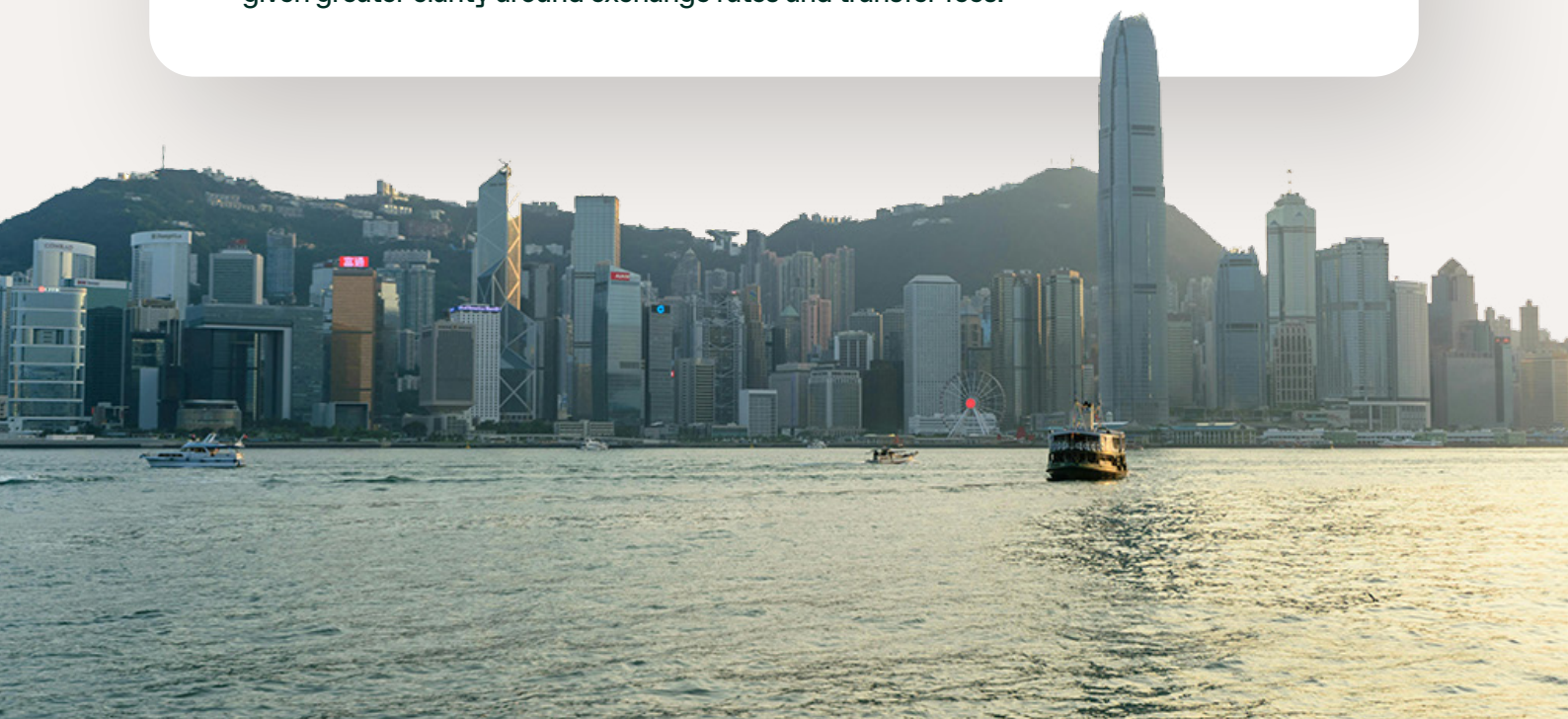
Fig. 2.20 Top Ranked Values of International Payments Provider

China	Quick Transfers 44%	Transparent Fees 18%	Lower Fees 14%
India	Quick Transfers 48%	Transparent Fees 13%	Lower Fees 10%
Philippines	Quick Transfers 61%	Transparent Fees 12%	Lower Fees 8%

The Philippines is also one of the only countries where security breaks into the top three most important characteristics of their payments provider.

Reliability and safety of platforms are therefore particularly in demand. Stronger payment protections and authorisation controls could help users feel safer.

China and India both display a stronger preference for transparency over lower fees. This indicates that users may be more willing to tolerate moderate costs if they are given greater clarity around exchange rates and transfer fees.



2.5 Europe

2.5.1 Payment Landscape

Europe's payment landscape is shaped by strong, deeply embedded banking infrastructure, which has enabled widespread adoption of interoperable standards. Contactless card payments dominate much of the region, but cash still remains resilient in countries like Spain, Germany, and parts of Eastern Europe.

At the same time, A2A systems have evolved along distinct national paths, sometimes enhancing domestic efficiency at the expense of international interoperability.

Countries like Sweden and Poland illustrate this divergence: bank-led initiatives such as Swish and Blik have achieved high adoption for real-time peer-to-peer transactions within their respective markets.

However, these systems often operate within national boundaries, reinforcing fragmentation even as broader European efforts aim to unify the ecosystem.

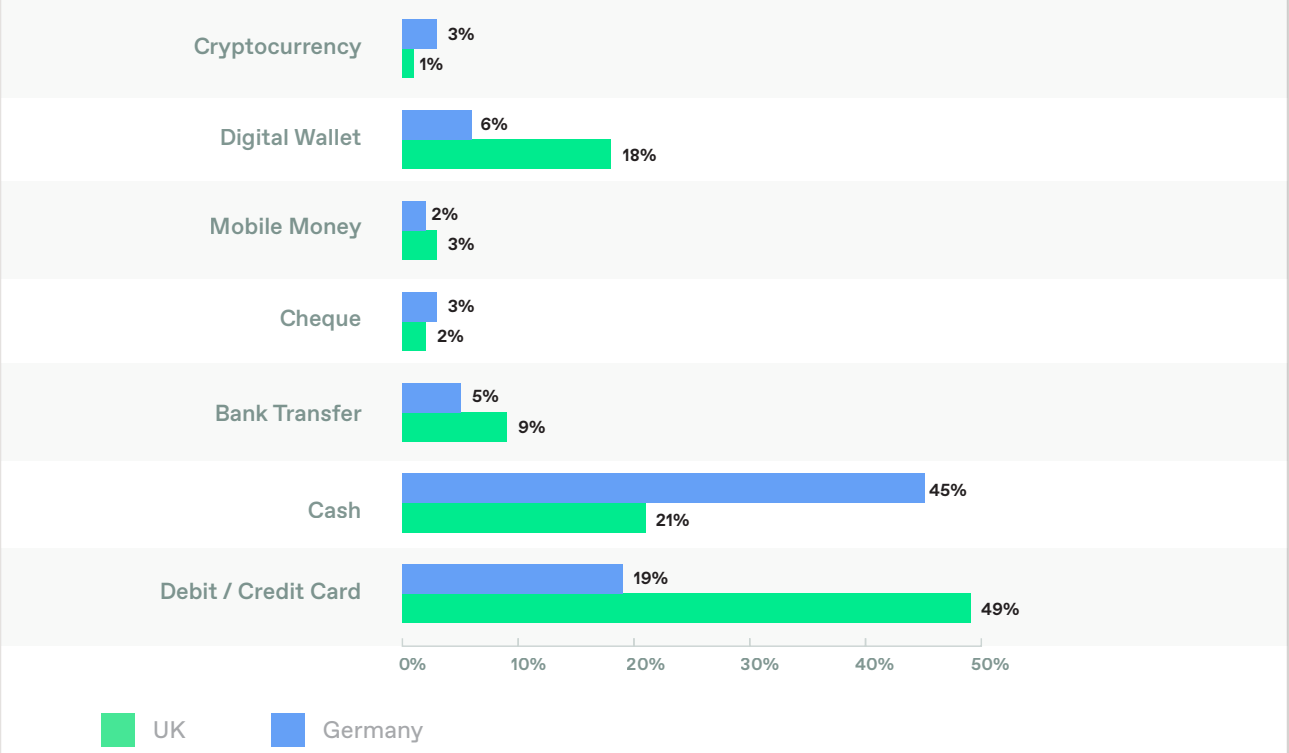
Two of Europe's larger economies provide an interesting comparison between the embrace of digital payments versus a commitment to cash.

Debit and credit cards are the most popular methods of payment in the UK, with cash and digital wallets playing secondary roles.

The UK has advanced Open Banking regulations and its Faster Payments System simplifies the process of making A2A transfers, creating near-universal access to free, instant P2P payments. In principle, this enables interoperability between banks and trusted third-party providers, meaning that banking apps can interface with payments providers at checkout.



Fig. 2.21 Proportion of Population Using Payment Methods Daily, by Payment Method (%), UK versus Germany



In practice, only 9% of those in the UK make bank transfers daily, indicating that use has not yet advanced past P2P payments to scale into merchant payments. Although Pay by Bank is beginning to take off as an eCommerce checkout option, limited acceptance means that cards and pass-through digital wallets remain the default at checkout.

Germany presents a contrasting model, where interoperability is less about digital integration and more about the coexistence of traditional payment methods. Cash remains the dominant form of payment, used daily by a significant share of consumers, while cards and digital wallets lag behind.

German consumers also tend to rely on a narrower set of payment methods, with less frequent switching between them than in other European markets.

This preference for cash, combined with relatively low adoption of digital wallets – 47% never use digital wallets – reflects both cultural factors and a slower shift toward fully interoperable digital systems.

As a result, while Germany's payments landscape is stable and widely accessible, it remains less integrated into the wider payments landscape.

2.5.2 Savings and Credit Landscape

The use of formal savings accounts varies considerably across Europe. In Germany, slightly less than half of adults report saving through a bank account, compared to around 70% in the UK.

However, unlike in several emerging markets, Germany's lower use of bank savings products is not offset by higher adoption of mobile money accounts or digital wallets for saving purposes. Instead, respondents in Germany are among the most likely to report that they neither save nor borrow money at all.

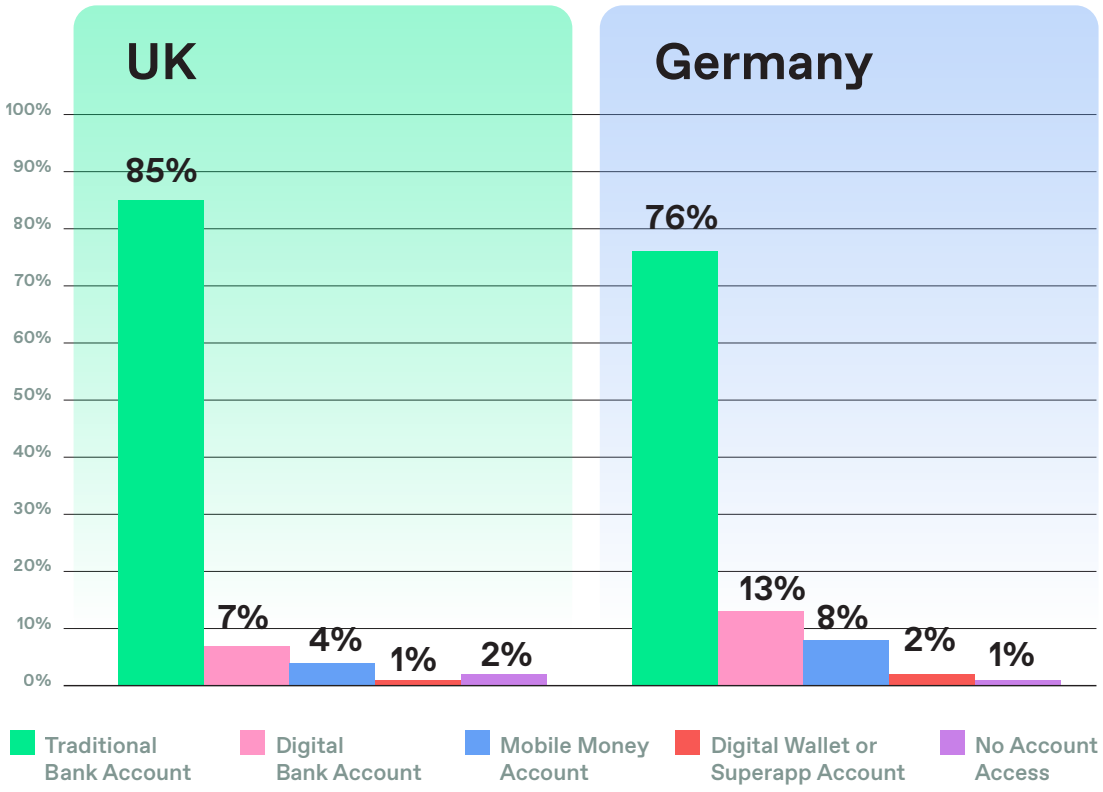
Germany's low formal bank account usage combined with its continued reliance on cash reflects cultural trust in physical money and relatively slower adoption of digital-first services compared to its neighbouring economies.

In this context, interoperability initiatives should focus less on replacing cash and more on reducing friction between cash and digital payment ecosystems. This could encourage greater engagement with digital savings services without requiring consumers to abandon cash-centric habits

Fig. 2.22 Methods of Savings and Accessing Credit: UK versus Germany

Method of Saving or Accessing Credit	UK	Germany
Bank savings account in the resident country	70%	46%
Bank savings account in non-resident country	4%	4%
Money saved in a mobile money account or digital wallet in the resident country	14%	14%
Money saved in a mobile money account or digital wallet in non-resident country	4%	6%
Cash savings kept at home	17%	16%
Informal lenders (friends, family, community members)	4%	5%
Formal loans from banks or other financial institutions	7%	13%
Buy Now, Pay Later (BNPL) services	13%	15%
Credit from shops or merchants	6%	4%
I do not save money	13%	17%
I do not borrow money	10%	21%

Fig. 2.23 First Formal Financial Account, Percentage of Respondents, UK versus Germany (%)



The UK and Germany report the highest rates of individuals opening a bank account as their first formal financial account, at 85% and 76% respectively.

This appears closely linked to earlier entry into the formal financial system compared to other markets. In the UK, 54% of respondents opened their first financial account before the age of 18, while in Germany the figure stands at 39%, both significantly above the global average of 22%.

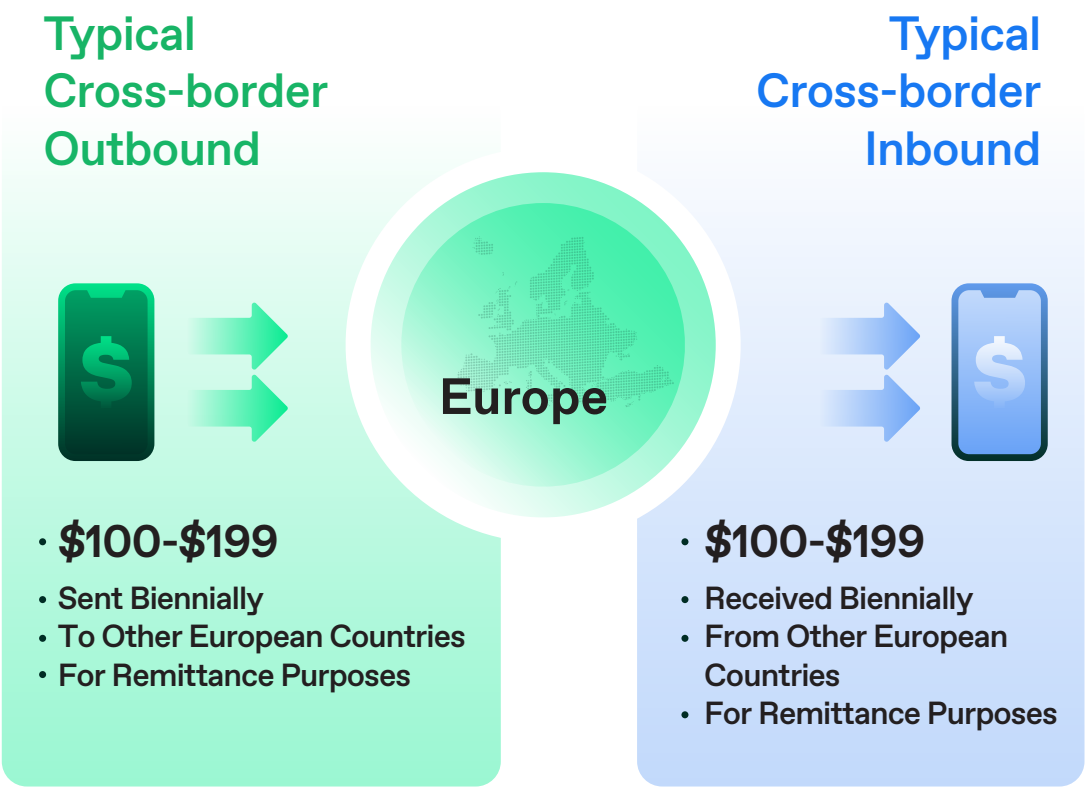
This early adoption reflects the strong institutional presence of traditional banks in both countries, where youth banking products encourage individuals to enter the financial system through conventional banking channels from a young age.

As a result, banking habits are often established early and reinforced over time, limiting the role of alternative financial providers as initial entry points into formal finance.

At the same time, respondents in the UK report the lowest degree of perceived choice when selecting their first account. Nearly one-third (31%) stated that they chose their first formal financial account because it was the only option accessible to them. Together, these findings indicate that high banking penetration in mature financial markets may lead to consumers defaulting into products at a young age rather than actively comparing providers.

2.5.3 Cross-border Payments

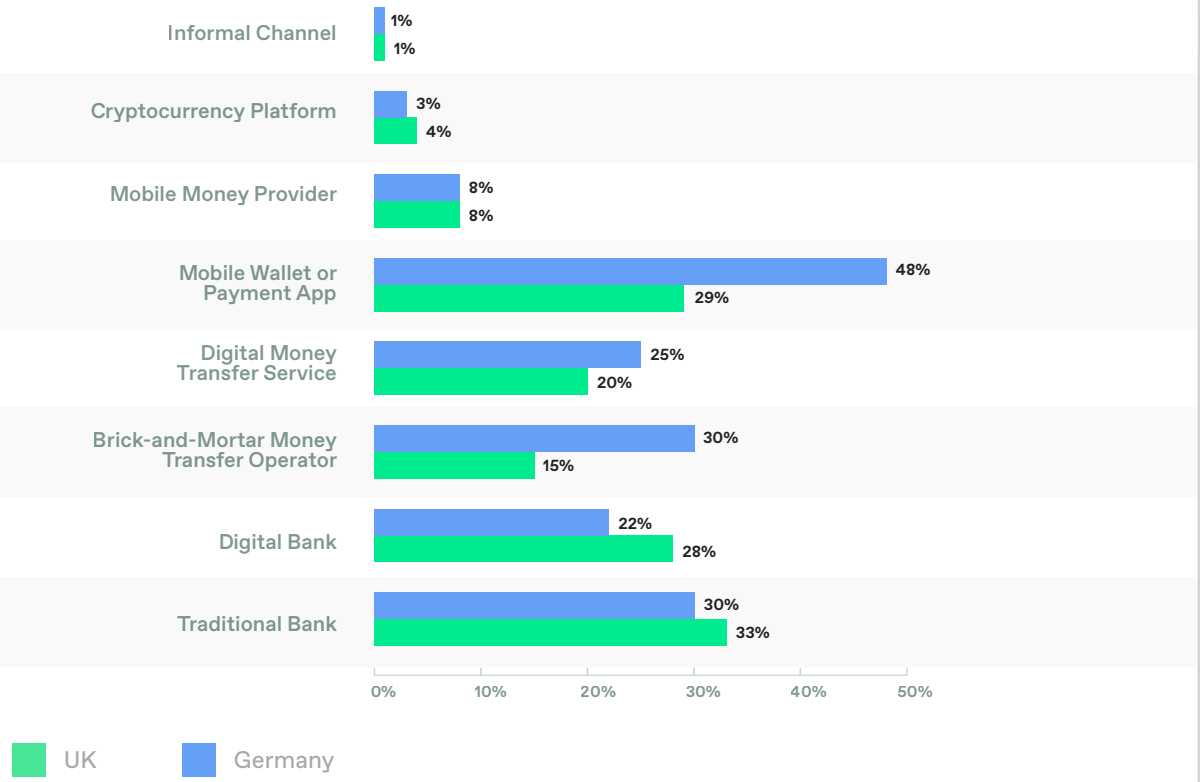
In the UK, traditional banks remain the most common channel for sending money overseas. The British cross-border payment landscape is also the least fragmented, as users are less likely to use multiple providers than those in other countries. This is likely linked to the consolidation of payments regions; British senders of cross-border payments are also least likely to send payments to more than one region, therefore there is not much of a need to utilise multiple payment providers.



Germany shows a similar reliance on traditional banks, but with a more diversified mix of payment methods overall. Consumers there are more likely to use mobile wallets or payment platforms such as PayPal alongside their banks. This variation is partly explained by the high volume of intra-European transfers: a majority of German users sending money abroad do so within Europe (53%).

Shared frameworks like SEPA and the Instant Payments Regulation 2025 enable instant and cheap euro-denominated transfers across borders, reducing the need for specialised cross-border services. As a result, German consumers can often rely on their existing banking apps or everyday digital wallets for international payments, illustrating how regional interoperability can shape both behaviour and provider choice.

Fig. 2.24 Typical Payment Channels Used to Send Cross-border Payments, (% of population using them), UK versus Germany



Notably, Germany recorded the highest levels of cash pick-up (15% of users) amongst those receiving cross-border payments, yet the most common method of funding a payment internationally was with bank transfer (42%).

This likely reflects the payment landscape, where most German users will be working with cash in their day-to-day lives and so prefer to receive a payment in this manner. However, funding a payment using a bank account carries a negligible cost due to their connections with the SEPA payments infrastructure, meaning users sending cross-border payments opt for this method over cash.

Cross-border payments sent and received in Europe are also the cheapest and fastest across the world. 30% of payments sent from Europe arrive instantly, which owes to the strong interconnectedness of the region.

Not only are financial institutions in the EU required to receive and send payments within 10 seconds, but they also cannot charge extra fees for instant payments.

Despite having cheaper and faster payments than most other countries, those in the UK and Germany still report high fees and slow transaction times at a frequency broadly in line with the global average.

Fig. 2.25 Fees Typically Paid in a Cross-border Transfer, by % of Population, Europe versus Global Average

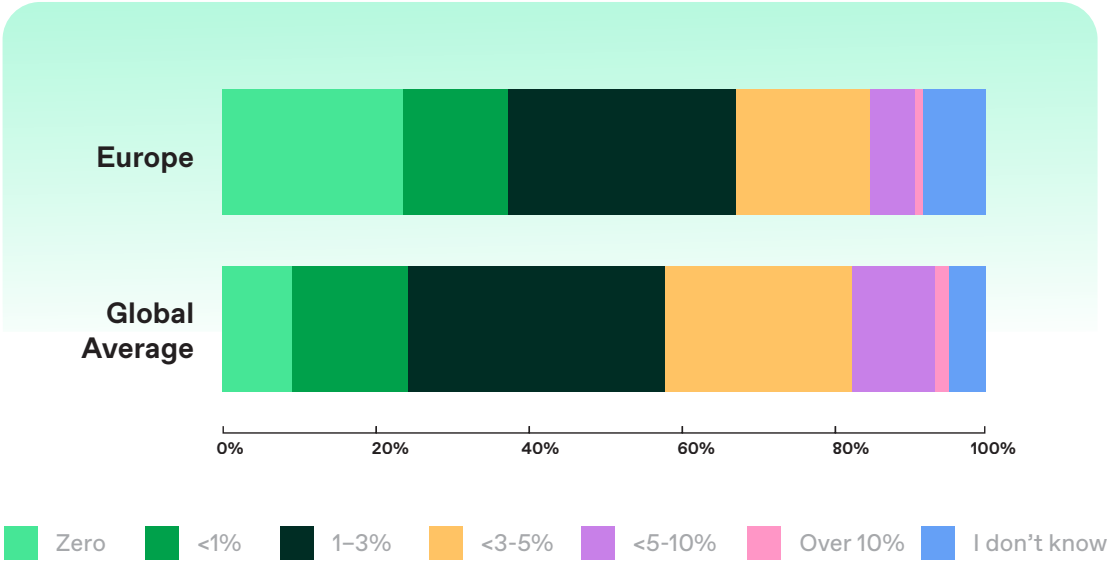


Fig. 2.26 % of International Payment Senders Experiencing Issues Sometimes, Often, or Very Often, UK versus Germany

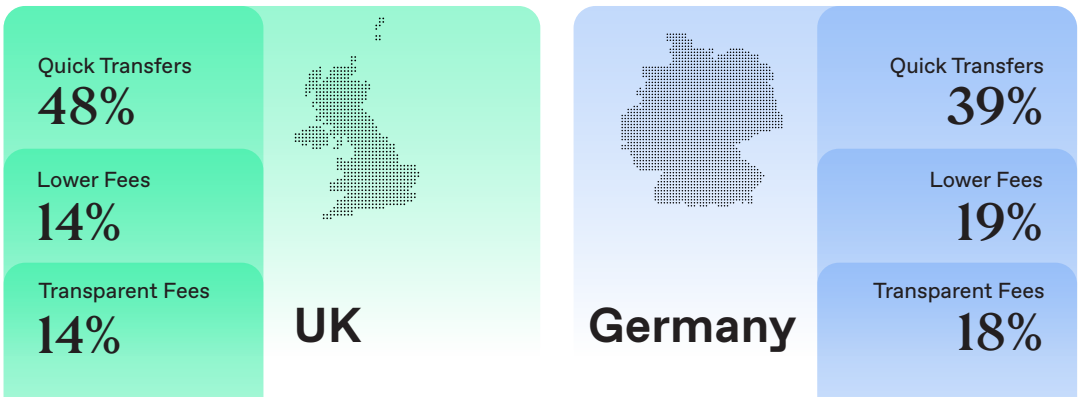
Issues	UK	Germany
It takes too long for the money to arrive	40%	36%
High fees	43%	49%
Hidden fees	38%	46%
Errors and failed transactions	33%	37%
Poor customer support	34%	38%
Poor exchange rates	47%	50%
Inconvenient payment process	37%	42%

2.5.4 Payment Preferences

In the UK and Germany, like in all surveyed countries, users of international payments providers value quick transfers over all other characteristics. However, this majority was not as overwhelming in other countries, and a more even distribution of users ranked lower fees and transparent fees as their top choice.

This may link to the quick payments experience of the majority of users- particularly those making intra-European transfers- which makes instant payments a baseline expectation rather than a stand-out service.

Fig. 2.27 Top Ranked Values of International Payments Provider





2.6 Africa

2.6.1 Payment Landscape

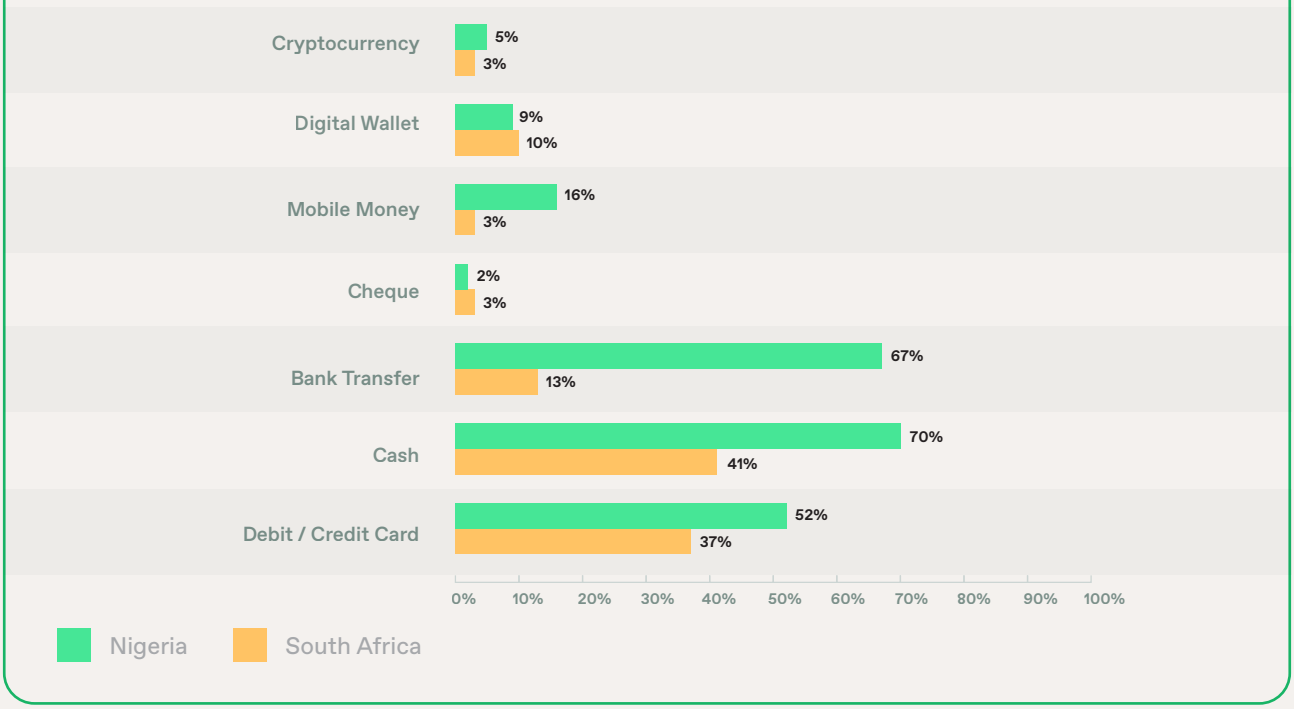
The payments mix varies considerably across the continent, although one commonality is ongoing cash use. Because of this, offline channels like agent networks are a critical factor of payments infrastructure, providing access points for funding mobile money accounts. Infrastructural factors and policy frameworks have contributed to the divergence of countries between card payments, A2A and mobile wallets as digital payment methods.

More widely, the Pan-African Payment and Settlement System (PAPSS), is aiming to link financial institutions across the continent to enable instant clearing and settlement. This simplifies A2A payments and strengthens the value that banks can offer the population.

Case Study: Nigeria, a Payments Innovator

Nigeria is predominantly a cash-based economy. While this may sometimes indicate a lack of access to formal financial services and low digital payments usage, this is largely not the case for Nigeria.

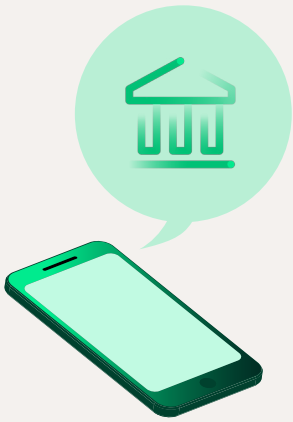
Fig. 2.28 Reported Daily Usage of Payment Methods, (% of population reporting daily usage), Nigeria vs South Africa



Nigeria experiences a thriving real-time digital payments network facilitated by its central bank, leading to a strong uptake of A2A payments. The Nigeria Interbank Settlement System was launched in 2011, and is supported by all commercial banks, mobile money operators, and micro-finance banks.

High adoption has been achieved via offering NIBSS via modalities across all channels, like mobile banking, kiosks, USSD code, POS terminals, and ATMs. Then, in 2021, an interoperable national QR-code standard was launched, which enables instant in-store payments and P2P payments.

This has contributed to the high use of bank transfers in daily life; 67% of people in Nigeria use bank transfers daily. This makes it the second most popular payment method, beat out narrowly by cash which is used by 70% of the population.



NIBSS has become a foundational platform that payment service providers have used to springboard from and operate services such as Chat banking, a service allowing users to pay each other using a WhatsApp banking PIN.

NIBSS also provides services to players in mobile payments to enable interoperability with banks, card acquirers, and other players in the financial system. It ensures that all devices deployed in the financial system are technically and operationally standardised, which assures a constant availability and uniform functionality of the terminals and devices.

Nigeria reports the widest payment mix out of all the countries, suggesting that consumers are familiar with a wide variety of payment options and regularly use them daily. The typical consumer is switching between bank transfer, cash, and card payments regularly according to the situation at hand. This is likely driven by requirements from the central regulator to ensure that all payments processes are ubiquitous. This makes it simpler for users to switch between payment processes.



2.6.2 Savings and Credit Landscape

For the purposes of this report, South Africa and Nigeria have been chosen for specific focus, given their size, digital penetration and relative maturity in traditional banking and bankarisation.

In both South Africa and Nigeria, around four in five adults report saving through a domestic bank account, highlighting the continued importance of traditional financial institutions in both markets. However, formal banking access has historically been lower in Nigeria, contributing to stronger adoption of mobile money platforms and other alternative financial services.

Savings behaviour in Nigeria is also shaped by broader macroeconomic pressures, including currency volatility and persistent inflation, which have encouraged consumers to diversify how and where they store value. As a result, mobile money and digital financial tools function not as replacements for the formal banking system, but as complementary channels.

Despite being less likely to actively save money through a mobile money account, respondents in South Africa were nearly twice as likely as those in Nigeria to report that a mobile money account was their first formal financial account (26% vs 14%).

This suggests that, in South Africa, mobile money services play an important onboarding role for financially underserved populations, offering accessible entry points into the formal financial system through simple, low-friction financial services.

In Nigeria, mobile money appears to be more deeply embedded within everyday financial activity rather than serving primarily as an introductory product.

The lower share of users entering the financial system through mobile money, despite broader usage overall, indicates that these platforms are functioning less as substitutes for banking access and more as integrated transactional tools within a wider digital payments ecosystem. In this sense, mobile money in Nigeria reflects a more mature and utility-driven adoption pattern, where users engage with these services as part of routine payments and value management rather than solely as a first step into formal finance.

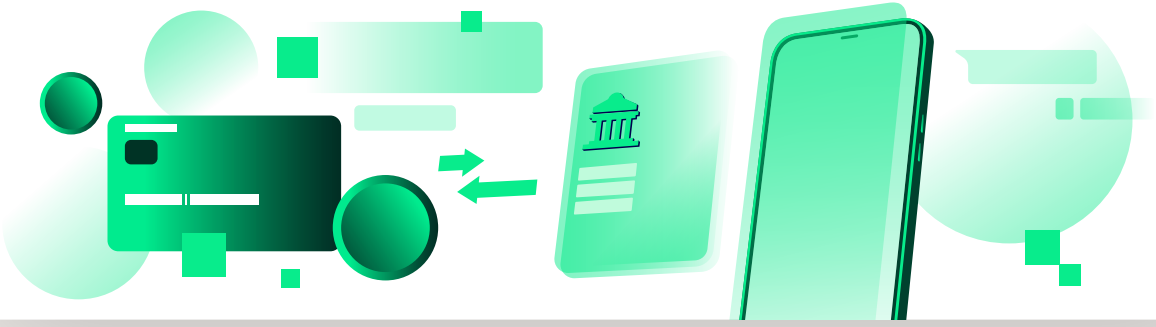
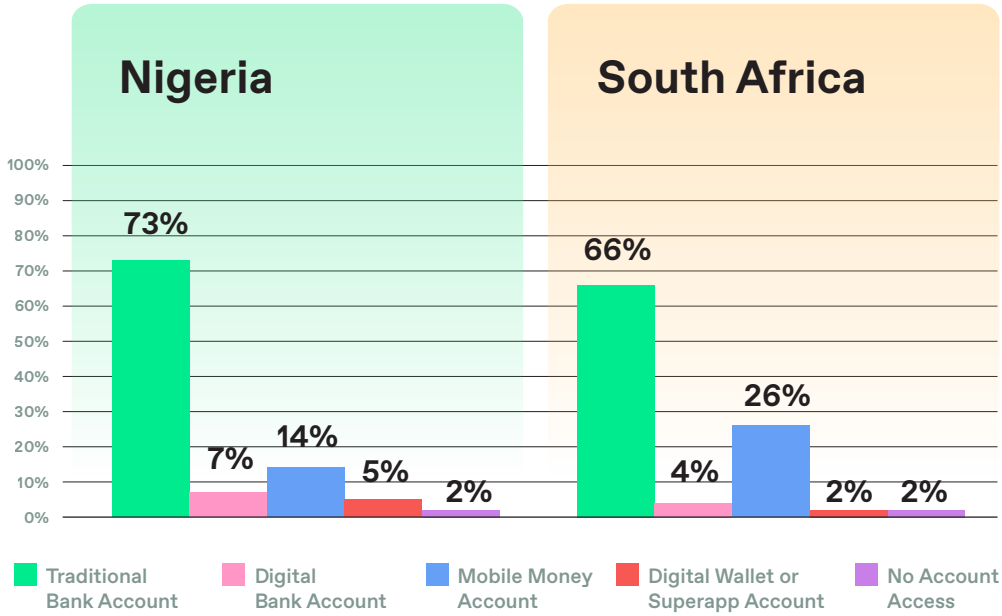


Fig. 2.29 Methods of Savings and Accessing Credit: Nigeria vs South Africa

Method of Saving and Accessing Credit	South Africa	Nigeria
Bank savings account in the resident country	81%	79%
Bank savings account in non-resident country	3%	4%
Money saved in a mobile money account or digital wallet in the resident country	19%	43%
Money saved in a mobile money account or digital wallet in non-resident country	5%	10%
Cash savings kept at home	24%	26%
Informal lenders (friends, family, community members)	5%	10%
Formal loans from banks or other financial institutions	12%	12%
Buy Now, Pay Later (BNPL) services	9%	7%
Credit from shops or merchants	10%	5%
I do not save money	6%	1%
I do not borrow money	6%	3%

Fig. 2.30 First Formal Financial Account (%), Nigeria vs South Africa



2.6.3 Cross-border Payments

Africa has a net inflow of payments, and generally engages with cross-border services from the point of view of the recipient, as a remittance. North America and Europe emerged as the most common regions that those in Africa had sent money to, which is most commonly to overseas businesses.

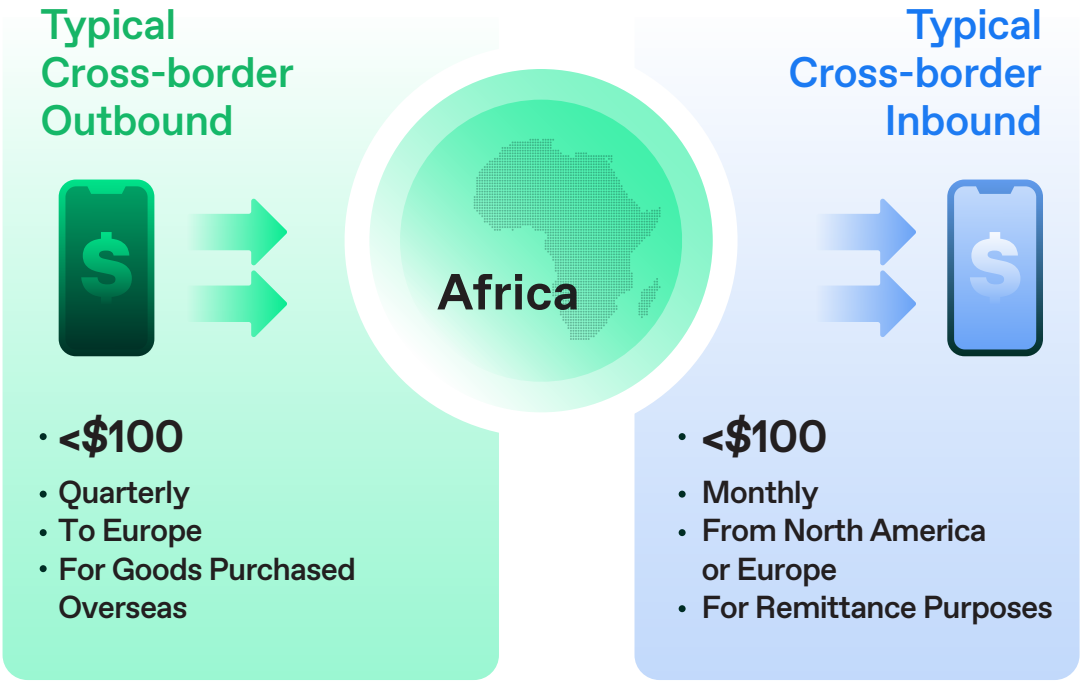
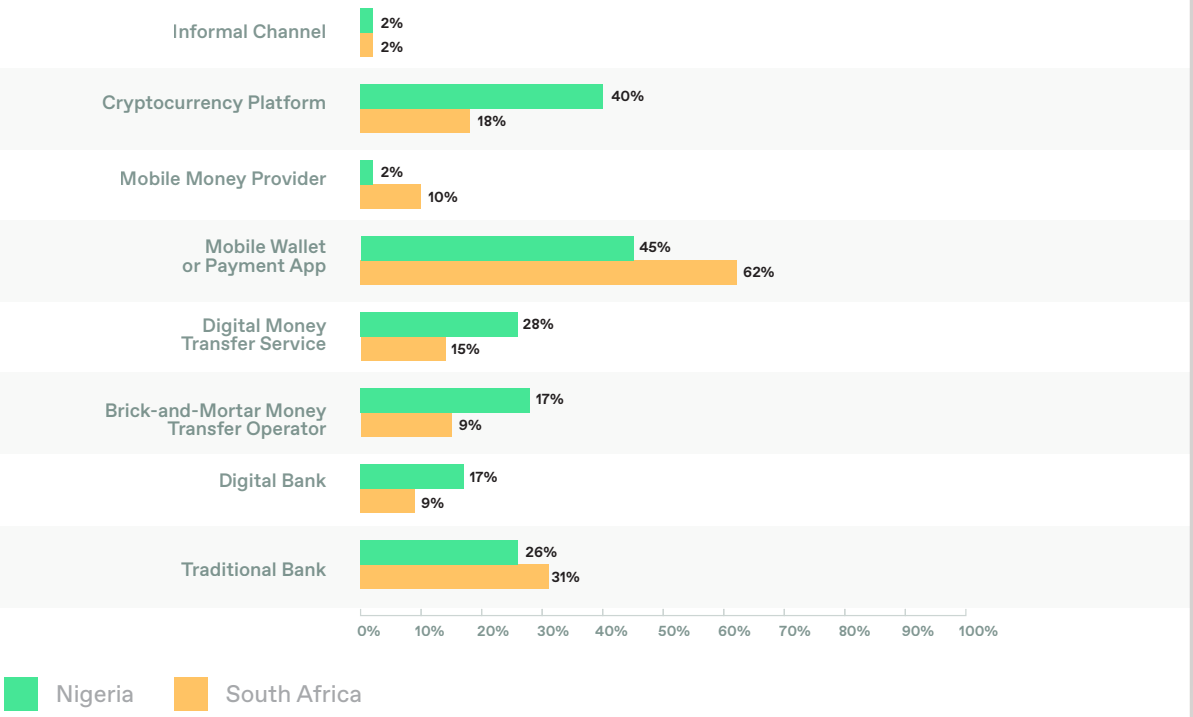


Fig. 2.31 Methods of Sending Cross-border Payments (% of population, multi-select), Nigeria vs South Africa



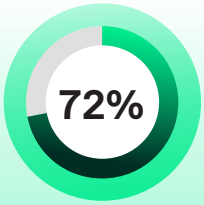
One stand-out factor is the high usage of cryptocurrency platforms in Nigeria. While 11% of people globally usually use cryptocurrency platforms to send money internationally, this rises sharply to 40% in Nigeria. This elevated adoption is closely linked to Nigeria's macroeconomic environment. Cryptocurrency is widely used as both a hedge against currency devaluation and a store of value, particularly in the context of persistent foreign currency shortages and restricted access to foreign exchange.

As a result, familiarity with digital assets is significantly higher than the global average. Only 19% of respondents in Nigeria reported having never heard of stablecoins, compared to a global average of 38%. This greater awareness and understanding of cryptocurrency products translates into broader usage across financial activities.

However, Nigeria already benefits from a relatively advanced ecosystem of real-time, low-cost digital payment solutions, reducing the need for alternative transactional rails within the domestic economy. In contrast, cross-border payments continue to involve higher fees and slower settlement times, making cryptocurrency-based transfers comparatively more attractive for international use cases.

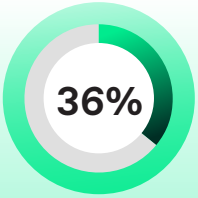
As a result, international money transfer providers in Nigeria should work to improve their connections to cryptocurrency platforms and exchanges. Improving interoperability with these platforms and providing cryptocurrency wallets can help international payments providers meet existing local demand.

In Africa



Are always shown the final cost upfront

In Nigeria



Receive international payments instantly

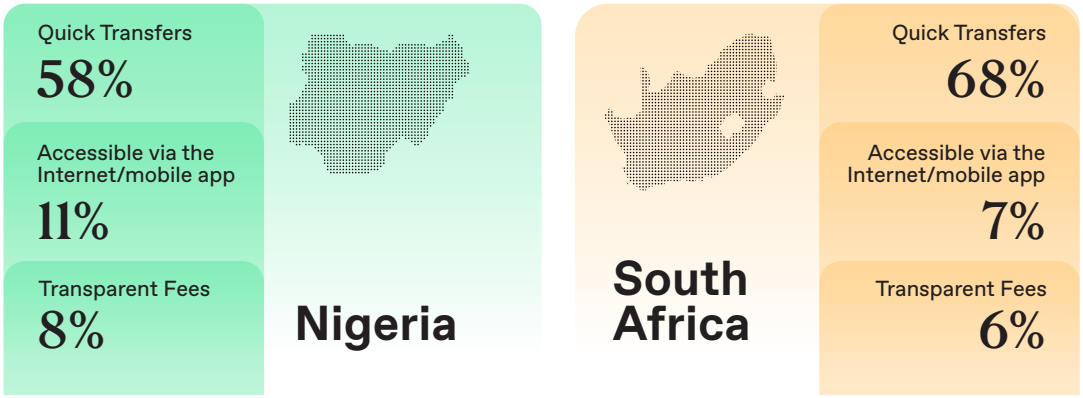
Africa is a global leader in transparency, as 72% report that they are always shown the final costs upfront, compared to a global average of 59%. The prevalence of mobile-based financial services may also contribute to this trend, as digital interfaces are often easier to navigate.

Furthermore, international transactions received in Nigeria settle faster than the global average. While 23% of global cross-border payments are received instantly, this number jumps to 36% in Nigeria. One contributing factor is the high cryptocurrency usage in the region. Transactions on the blockchain settle instantly, skipping long traditional correspondent banking networks.

2.6.4 Payment Preferences

In line with global preferences, respondents from South Africa and Nigeria valued quick transfers the most about their current international payments provider. This preference was particularly pronounced in Nigeria, aligning with the country's comparatively strong experience with instant or near-instant cross-border payments.

Fig. 2.32 Most Valued Feature of Current International Payments Provider, (%), Nigeria vs South Africa

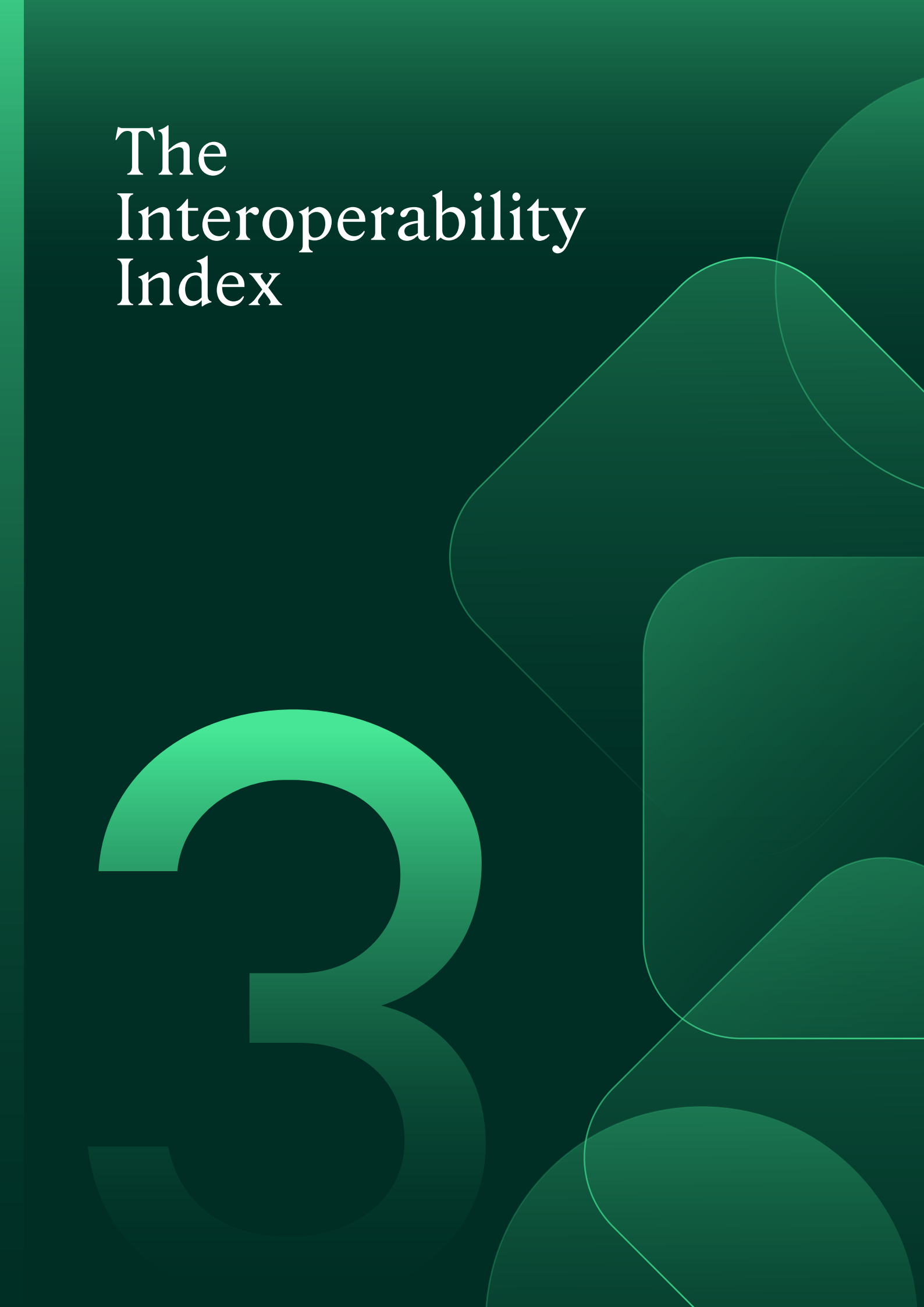


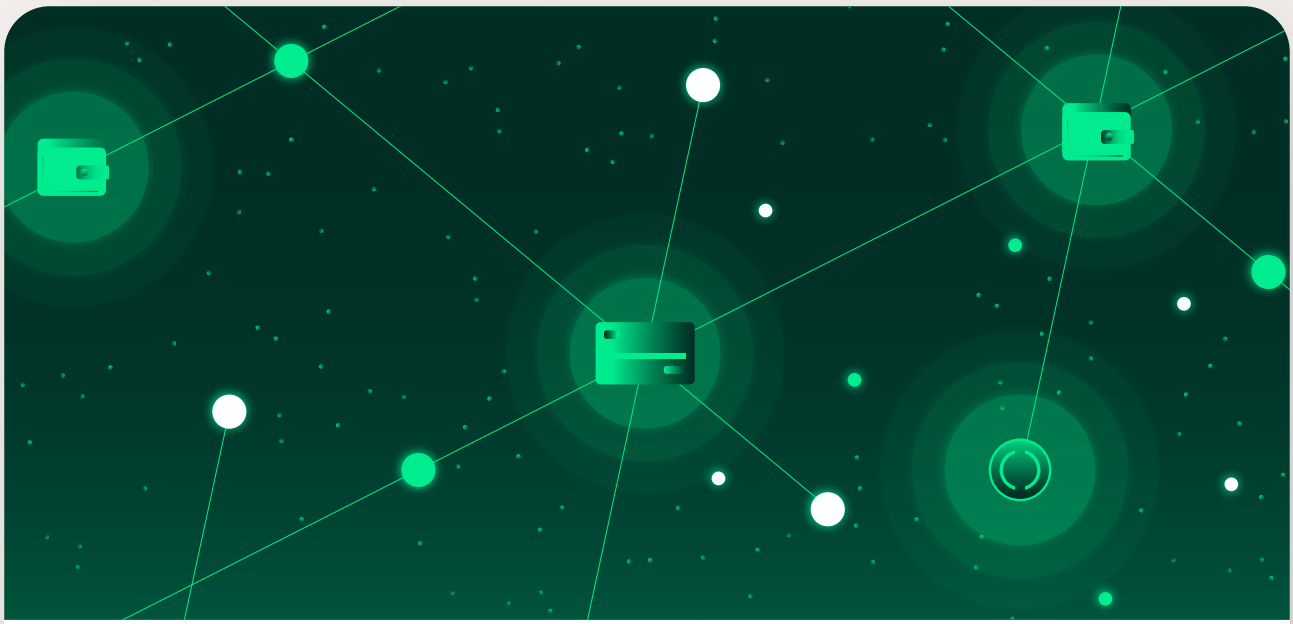
South Africa, meanwhile, stood out as the only surveyed country where the ability to access a payments provider through the internet or a mobile app ranked among the top three most valued features.

This closely reflects the country's relatively high adoption of mobile wallets and digital payment applications for international money transfers. This finding suggests that a consumer preference for convenience and a digital user interface actively translates into South Africa's international payments market, where users are more inclined towards mobile-first services.



The Interoperability Index





3.1 Introducing the Interoperability Index

Interoperability is not a concept in isolation – it has a real cost for consumers and businesses, and resolving it can unlock potential.

The Interoperability Index covers 50 countries across the world and the cross-border payments experience within them.

The cross-border payments landscape of today is fragmented across traditional banking rails, card networks, digital wallets, and emerging blockchain-based networks, creating uneven access when transacting between these systems.

The Index has been developed to quantify this growing digital mobility divide, which is the gap between markets that can easily participate in the global digital payments economy and those that remain siloed and disconnected.

The Index evaluates 50 countries across their economic health and four core dimensions:

- Digital Infrastructure Access
- Cross-border Payment Connectivity
- Financial Inclusion
- Market Dynamics and Progress

This provides a new framework for understanding where friction is still present within the international payments market, as well as identifying the infrastructure and policy innovations that enable more inclusive financial connectivity.

Further information on the data sources used for the Index can be found in the Methodology section.

3.1.1 The Top 20 Markets

Figure 3.1 shows the top 20 markets, which are heavily dominated by European countries. These show that the interlinked SEPA scheme is having a major impact on the cross-border payments experience within Europe.

However, Singapore scores very highly, at third, reflecting that when governments and fintechs are aligned in terms of creating great cross-border infrastructure, this can really work in practice.

Figure 3.1 The Thunes Payments Interoperability Index – Top 20

Rank	Country	Region	Overall Score
1	Denmark	West Europe	8.8
2	Singapore	Rest of Asia Pacific	8.3
3	Norway	West Europe	8.2
4	Spain	West Europe	8.0
5	Netherlands	West Europe	8.0
6	Sweden	West Europe	8.0
7	UK	West Europe	7.9
8	Switzerland	West Europe	7.7
9	Austria	West Europe	7.6
10	Australia	Rest of Asia Pacific	7.5
11	Finland	West Europe	7.4
12	Germany	West Europe	7.3

Figure 3.1 The Thunes Payments Interoperability Index – Top 20 , cont'd.

Rank	Country	Region	Overall Score
13	South Korea	Far East & China	7.2
14	Belgium	West Europe	7.2
15	France	West Europe	7.1
16	Ireland	West Europe	6.9
17	Japan	Far East & China	6.9
18	Portugal	West Europe	6.6
19	Poland	Central & East Europe	6.6
20	Italy	West Europe	6.6

The top 20 also has something else in common – many of the world's largest remittance send locations are included, showing how cross-border payments has focused on the largest opportunities, but at the expense of corridors where people still need reliable payment infrastructure.

3.2 Key Trends

3.2.1 Emerging Markets Are Redefining Financial Inclusion Through New Payment Rails

Traditionally, financial inclusion has been measured as the ability to access a bank account at a formal financial institution. This metric reflected a system where ownership of a bank account and corresponding payment card was a prerequisite for engaging in activities such as eCommerce, cross-border money transfer, and receiving wages.

However, a paradigm shift is occurring. Countries with low bank penetration are closing the gap through alternative digital financial infrastructure. Leveraging widespread growth in mobile and internet adoption, these markets have introduced solutions such as mobile money accounts and regionally tailored digital wallets, enabling users to transact without relying on legacy banking systems.

Emerging markets such as Brazil and India exemplify this shift. They are not constrained by legacy payment infrastructure, allowing them to leapfrog countries that have entrenched payment networks by building modern, real-time payment ecosystems from the ground up. Their unique position as high-growth markets with a digitally engaged, young population has accelerated adoption, while government-backed initiatives and interoperability with daily payment methods further strengthened network effects.

Another defining trend is the comparatively high adoption of stablecoins in emerging markets. In economies characterised by currency volatility and limited access to stable foreign exchange, dollar-denominated stablecoins are increasingly used as a store of value and a medium for transactions.

These instruments provide a hedge against local currency depreciation while enabling faster and lower-cost cross-border transfers compared to traditional remittance channels.

Overall, this shift highlights the necessity of redesigning financial access around user needs, rather than simply integrating individuals into existing banking systems.

3.2.2 Europe's Interoperability Advantage Masks a Growing Cross-border Disconnect



Countries within the European Union are rare within the bottom half of the categories, for any of the metrics in the Interoperability Index.

This is because the EU and EEA share overarching regulations and thus interoperability governance, which refers to decisions on interoperability frameworks, policies, and monitoring made in tandem with each other. These coordinated governance frameworks have enabled consistent and sustained improvements to be implemented across the region.

However, this success is largely regional. When transactions extend beyond the EU, interoperability often breaks down, exposing a divide and lack of alignment with non-European systems.

For example, the European Central Bank reported that a small business owner in Croatia trying to make a €5,000 transfer to a supplier that is not part of the Single Euro Payments Area will face up to 12 times the cost than when sending the same amount to those within SEPA.[2]

[2] "Enhancing cross-border payments in Europe and beyond", European Central Bank, April 2025, http://www.ecb.europa.eu/press/key/date/2025/html/ecb.sp250401-9e1ee05e88.html

This creates a two-tier system, where users experience instant, cheap payments domestically and regionally but face inefficiencies and high costs when moving money internationally.

This proves an inordinate burden to diaspora communities, migrants from low-volume remittance corridors, and businesses looking to pay freelancers on a global scale.

3.2.3 East Asia Leads in Digital Payment Infrastructure



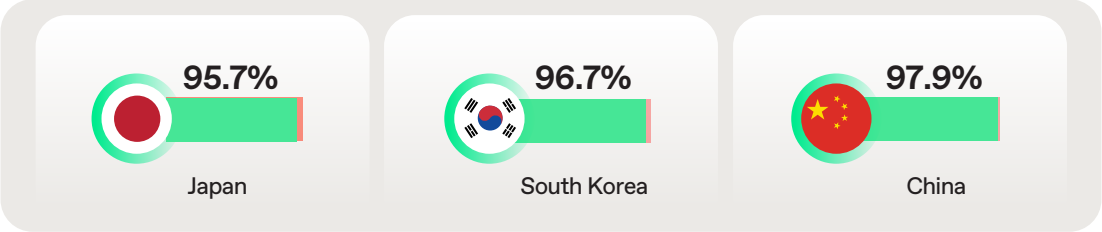
The East Asia region stands out in terms of their digital payments infrastructure, scoring higher in this metric than all other regions. Evident in this is the high digital payments usage throughout the region: all three countries reported over 95% of their adult population as having made or received a digital payment in the past three months.

While these regions are highly active in the digital payments space, payments activity is considerably siloed and internal, making it difficult for corporations outside of these regions to break into East Asian markets.

For example, WeChat Pay and Alipay are both major wallets and superapps within China and the de facto methods of payment for P2P transactions, eCommerce and in-store payments. These payment channels both require a Chinese ID or Chinese bank account in order to become an approved user. For businesses to register with them directly, they typically need to partner with payments providers which have an existing relationship with these wallets.

These three East Asian countries have also made significant progress with their central bank-issued digital currencies (CBDCs), China being one of the first countries to launch a digital currency.

Fig. 3.2. Digital Payment Penetration in East Asia (% of population)



Source: Global Findex 2025

This could lead to further fragmentation in payments, as CBDCs are closed loop and national by design. It would require considerable engagement in multilateral linkage projects before these systems can be connected.

While initiatives such as Project Agora aim to address this, the novelty of CBDC systems means that investment will first be focused domestically before multilateral linkages are created. This will further widen national divisions in payments in the short term.

Overall, the dominance of a few platforms within these countries creates tightly integrated but relatively closed ecosystems. While highly efficient internally, these systems are not inherently interoperable with global payment rails, limiting cross-border functionality and reinforcing fragmentation between regions.

3.2.4 Legacy Systems Create Cross-border Tax in Emerging Markets

Emerging markets disproportionately bear the burden of money transfer; over 39% of corridors account for 5% of global money transfer costs, with the majority of outbound countries located in sub-Saharan Africa.[3]

This can divert people away from formal systems, causing them to rely on more risky informal methods. Expense is key when encouraging remitters to transfer money via formal systems; even a 1% decrease in the cost of remitting $200 can lead to a 1.6% increase in the volume of formal remittances.[4]

The cause of this disparity lies overwhelmingly with banks, which generally focus on providing services for high-value financial flows and tend to neglect smaller transfers.

According to the World Bank, banks emerge consistently as the most expensive remittance service provider when compared to money transfer operators, mobile operators, and post offices.[5]

This stems from the considerable compliance costs faced by a bank when transferring money across borders, namely AML and KYC compliance checks that must be repeated per jurisdiction. Legacy systems perpetuate inefficiencies within these systems, resulting in multi-day settlement processes.

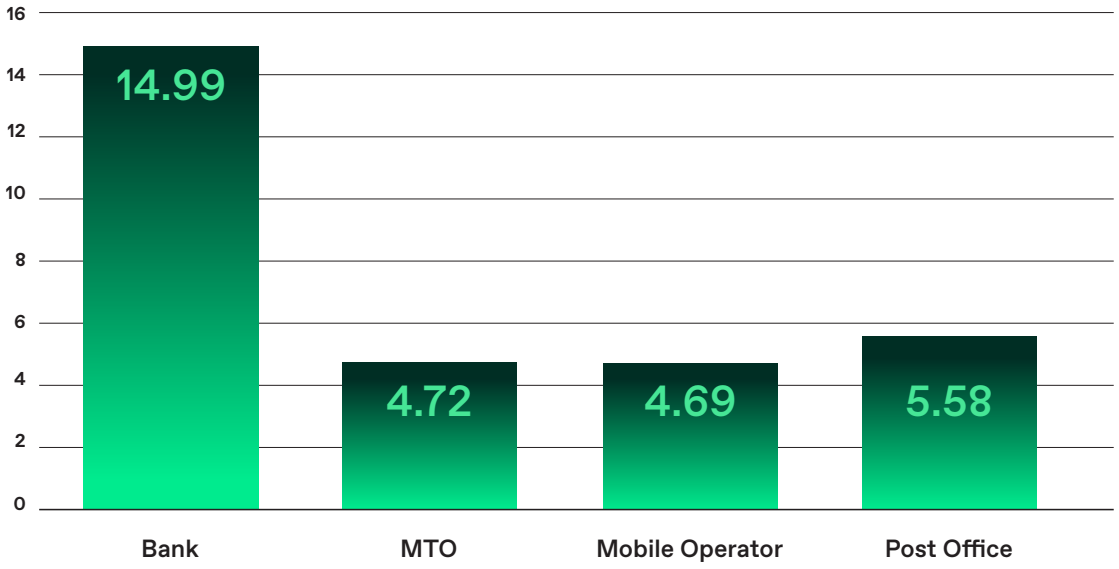
Legacy banking systems also lack the automation capabilities necessary to enable straight through processing, which describes a payment made with minimum human intervention.

[3] Remittance Prices Worldwide Quarterly, World Bank, March 2025, https://remittanceprices.worldbank.org/sites/default/files/rpw_main_report_and_annex_q125_1_0.pdf

[4] "Sending money home: Transaction cost and remittances to developing countries", Ahmed, Mughal, Martinez-Zaroso, January 2021, https://onlinelibrary.wiley.com/doi/full/10.1111/wec.13110

[5] The World Bank Remittances, World Bank, Data pulled in May 2026, https://remittanceprices.worldbank.org

Fig. 3.3 Cost of Sending $200 (% of Value Taken in Fees)



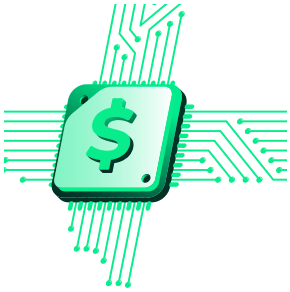
Source: World Bank Remittance Prices Worldwide[6]

This is why sending money via a bank account is the most expensive instrument used to fund a transaction, compared to cash, mobile money, and a credit or debit card.7 This gap in cost widens in emerging markets, due to the extra costs added when money transfers pass through multiple correspondent banks in order to reach the recipient's account. This issue is only worsening as banks 'de-risk' by terminating correspondent banking relationships in certain corridors, such as in the Caribbean and Sub-Saharan Africa.[7]

[6] Ibid

[7] Ibid

3.3 Digital infrastructure



Retail payment systems have undergone a significant transformation over the past decade, shifting from cash-based payments to digital alternatives.

The gradual shift away from cash first followed the diffusion of payment cards and improvements in authorisation speed and security, then later the development of contactless cards.

Further digitalisation occurred with the spread of mobile payment applications and interfaces such as QR codes and biometric authentication.

Digital Infrastructure measures the level of access to and participation in digital payment systems, which is vital for engaging in eCommerce, sending money internationally, and conducting remote work across borders. Digitalisation also lowers the cost of market entry for companies looking to sell in foreign markets, allowing them to reach consumers online.

In the Interoperability Index, the Digital Infrastructure score is comprised of the following metrics:

- **Internet Usage (%)**
- **Smartphone Ownership (%)**
- **Digital Payments Activity in the past 3 months (%)**
- **Mobile Wallet Ownership (%)**

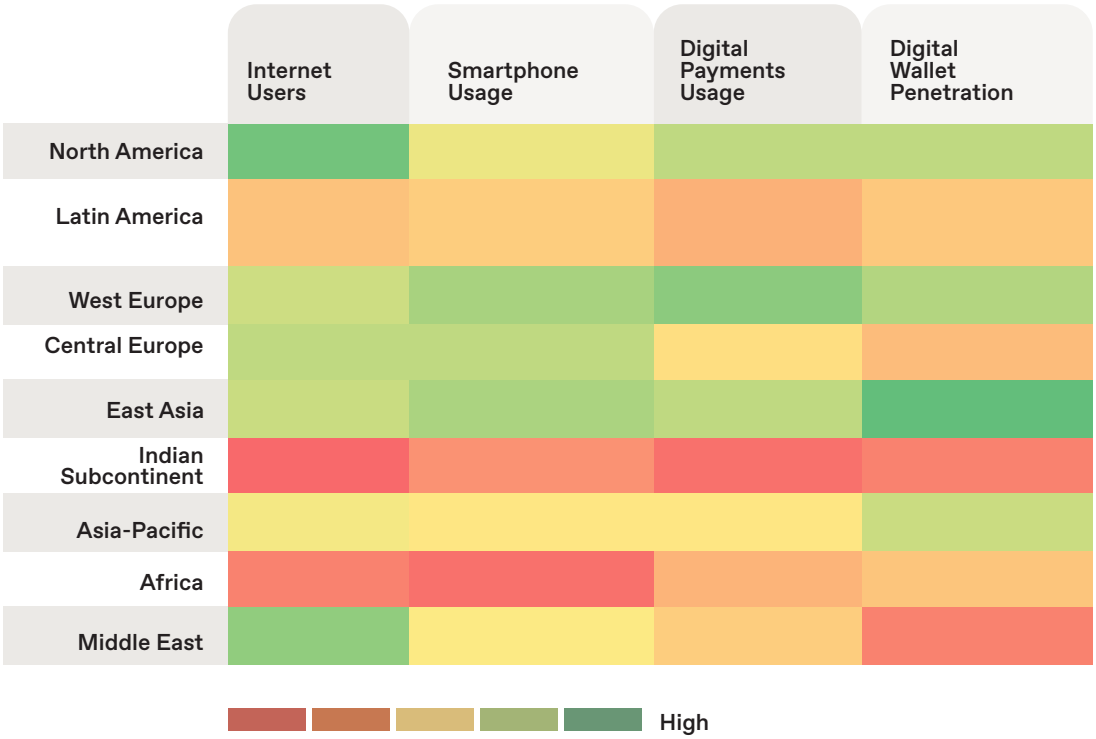
Having a good digital infrastructure score does not guarantee high levels of financial inclusion or the ability to make cross-border payments, but a lack of reliable infrastructure does preclude people from accessing these things.

Research consistently identifies that national-level factors such as internet infrastructure and affordability are a key prerequisite for the widespread adoption of non-cash payment methods.[8]

Therefore, measuring digital infrastructure provides a useful proxy for assessing the readiness of a market to take the next steps into launching cross-border payments initiatives, as well as the ease of building payments connections across the population.

[8] "Is There a Relationship between Making Digital Payments and Internet Usage, Digital Skills, and Education Worldwide?", Antonijevic, Ivanovic, Vukmirovic, March 2023, https://www.mdpi.com/2504-3900/85/1/11

Fig. 3.4 Digital Infrastructure Heatmap



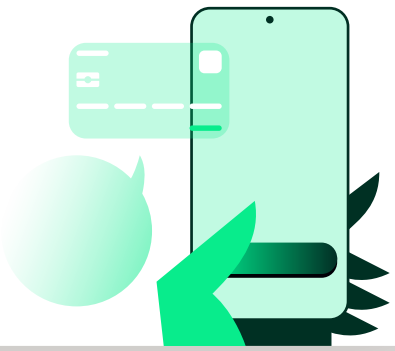
This is characteristic of countries in the Middle East and regions in Latin America. These are generally highly digitally engaged populations, especially in urban regions, yet adoption of their digital payments systems lag behind, reflected in their higher overall cash usage in day-to-day payments.

This can make it difficult for multinational corporations to expand reach into these markets, reinforcing the necessity of integrating with existing regional mobile payment solutions like Saudi Arabia's STC Pay and UAE's Careem Pay.

However, some countries demonstrate a discrepancy in the opposite direction, showing strong digital payments activity and mobile wallet ownership despite relatively poor digital infrastructure.

This is characteristic of countries located in Asia-Pacific and Sub-Saharan Africa, and generally indicates a deliberate effort to overcome gaps in internet connectivity or smartphone ownership through launching mobile money initiatives.

Mobile money only requires a featurephone, and has a range of offline activities available from money transfer to savings. Cash can be converted into electronic value via authorised agents such as shops, and payments can be made in a similar way to sending a text message.



For example, the number of households with an internet connection in Bangladesh is lower than other countries but quickly rising – at 54.8% in 2025 – while smartphone adoption jumped from 63.3% to 72.8%.[9]

However, their most popular digital payment service, bKash, has 82 million customers, meaning that around 64% of their population over 14 has a bKash account. This demonstrates clear demand for the service; the majority of those with a smartphone have a bKash account, and bKash accounts outstrip the number of internet users.

This suggests that improvements in digital infrastructure would help existing bKash users access the full range of services, instead of being limited to offline usage. The World Bank has stated that bKash played a role in achieving Lower Middle Income Country status, as well as helping the nation achieve its 2030 Sustainable Development Goals by increasing access to credit and improving financial transparency.

3.3.1 Super-app Proliferation

Superapps- mobile apps that offer payment services alongside messaging services, ride-share or food delivery options- are also contributing to the sharp rise of digital wallet engagement.

Platforms such as WeChat go beyond offering payments as add-ons, instead unifying everyday payment transactions within a central interface. They also integrate lifestyle services, so users can facilitate mortgages and car loans alongside paying a rideshare, browsing eCommerce sites, or sending money overseas. Other notable super-apps include KakaoTalk in South Korea, Grab in Southeast Asia, and Paytm in India.

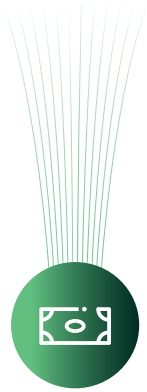
These become dominant as a result of strong network effects; those signing up to the service in order to message their friends will also have easy access to the payments and savings aspect of the superapp, encouraging usage.



This was first embodied in WeChat in China, which began evolving into a superapp by adding mobile payment functions to their messaging services, then adding a commerce vertical.

[9] "54.8% of households are now internet users: BBS", The Business Standard, August 2025, https://www.tbsnews.net/bangladesh/telecom/548-households-are-now-internet-users-bbs-1221491

3.3.2 Barriers to Digital Connectivity and Access: The Digital Divide



Although digital connectivity is rapidly improving across the globe, not everyone has equal access to services. Large segments of populations remain excluded from the digital sphere due to a confluence of technological and cultural barriers that impede participation.

This is labelled the 'digital divide', which refers to the disparity between those with access to modern ICT and those without. In developing countries this divide is often particularly pronounced, as developing countries are more likely to struggle with unstable access to electricity, unaffordable internet access or inadequate digital literacy.

In addition to structural barriers, concerns surrounding fraud and cybersecurity risks are another major obstacle preventing digital payments growth, particularly in regards to digital retail payments, which are more exposed to fraud.

For example, the Philippines is predicted to fall short of its target of converting 70% of total payments to digital by 2028, with the Central Bank citing cyber risks as a major barrier. This harms public trust in digital systems, widening the digital divide.

"We worry a lot about cyber risks. So even as we've encouraged digitalisation, we're also trying to get the banks to also make sure that they defend themselves against cyber risks."

Eli Remolona Jr, Governor of the Bangko Sentral ng Philipinas, February 2026[10]

In order to help mitigate the mistrust caused by fraudulent attacks and failed transactions, companies sending international payments must make full use of smart routing logic.

This dynamically moves a payment through systems, choosing the most beneficial route to optimise its chance of success. Based on real-time data and analytics, payment orchestration platforms can continuously monitor performance, as well as risk score each transaction to determine the level of authentication needed to prevent fraudulent attacks.

Furthermore, payment orchestration platforms can also personalise the payment methods shown to each customer, presenting local and trusted payment options based on their location and previous behaviour. This increases trust in digital payment systems.

[10] "Philippines may fall short of 2028 digital payments target: BSP", Coingeek, February 2026, https://coingeek.com/philippines-may-fall-short-of-2028-digital-payments-target-bsp/

3.3.3 Opportunities and Implications for Interoperability Initiatives: Addressing Network Siloes

When looking to expand into countries with a large digital divide, businesses must ensure that they are connecting to local offline payment methods in order to not exclude digitally disadvantaged sections of the population. An optimal way to achieve this is by connecting to regional mobile money initiatives, which have a wide market reach. According to the State of the Industry Report on Mobile Money 2025, there are currently 2.3 billion registered mobile money accounts, with 592m active in the last 30 days.[11]

Mobile money systems are generally closed loop, run by national operators and therefore restricted to the borders of the nation they originate in. This forces the sender to pay high fees to transfer money across platforms.

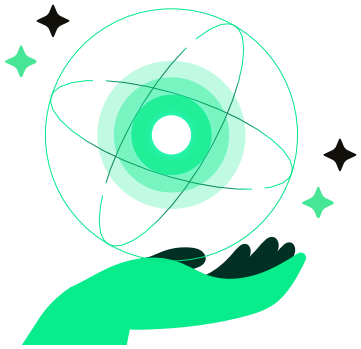
This has been somewhat addressed in recent years- for example, Orange has allowed money transfer from France to customers in Mali and Senegal – yet initiatives largely remain segmented. By partnering with these platforms, companies can benefit from reaching their large customer base.



[11] The State of the Industry Report on Mobile Money 2026, GSMA, April 2026, https://www.gsma.com/sotir/

3.4 Financial Inclusion

Financial services are rarely equally accessible across a population, with age, gender, and geography playing a role in limiting access to banking, credit, and savings. Recognising and addressing these infrastructure barriers is key to boosting financial inclusion.



We define financial inclusion as:

The process of ensuring access to and effective use of affordable financial services for all segments of society, particularly the underserved and low income groups.

This was comprised of the following metrics in the Interoperability Index:

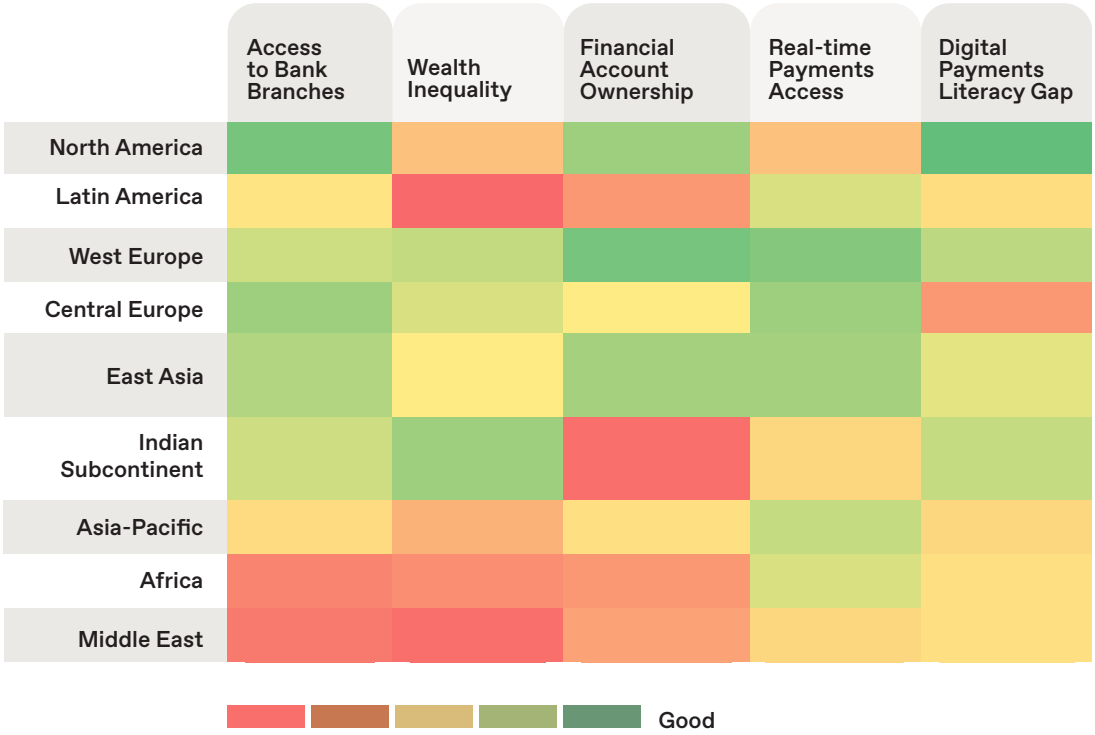
1 **ACCESS TO BANK BRANCHES**
This metric reflects the availability of physical banking infrastructure per 1,000 in the population. While digital-first banks are becoming more prevalent, access to in-person services remains essential, particularly for individuals who are digitally excluded or rely on cash and face-to-face support.

2 **WEALTH INEQUALITY**
This metric captures disparities in income and wealth distribution within a population. Higher levels of inequality can limit access to financial services for lower-income groups, thereby constraining overall financial inclusion.

3 **REAL-TIME PAYMENTS ACCESS**
This metric assesses the availability of fast, secure payment systems. Financial inclusion extends beyond basic access to payments; users must also be able to transact efficiently and reliably through real-time payment networks.

4 **DIGITAL PAYMENTS LITERACY GAP**
This metric measures the difference in digital payments adoption between individuals aged 16–24 and those aged 25 and above. A larger gap, regardless of direction, indicates uneven levels of awareness, skills, or trust in digital payment systems across age groups.

Fig. 3.5 Financial Inclusion Heatmap



Overall, West Europe and East Asia exhibit high levels of financial inclusion, indicating that the majority of their populations have easy access to methods of saving, gaining credit, and investment.

In comparison, access remains limited across parts of the Middle East, Africa and the Indian Subcontinent. Financial inclusion gaps are also evident across demographics: women are less likely than men to hold a financial account, and lower-income populations face disproportionately greater barriers to access.

Importantly, financial account ownership extends beyond simply access to physical banking infrastructure. For example, Pakistan has a relatively high number of bank branches per capita, yet the percentage of adults with a financial account remains amongst the lowest of the indexed countries.

According to the State Bank of Pakistan, 53% of the population lack a bank account and the economy is still highly cash reliant despite efforts to digitise the economy.[12] This leaves fintechs to bridge access gaps.

Fintech providers such as JazzCash and EasyPaisa provide mobile wallets which enable users to fund the wallet using a bank transfer, card, or cash-in via agent networks.

From there, users can pay merchants using QR codes, make bill payments, pay other users, and access loans. However, these solutions are closed loop and operate within the borders of the country, so third party remittance providers are required in order to send money outside of the system.

[12]"With PKR 9.4 trillion in circulation, Pakistan struggles to curb cash reliance", Nukta, March 2025, https://nukta.com/pakistan-struggles-cash-reliance

3.4.1 Rise of Real-time Payments Systems Driving Instant Payments Expectations

Also evident from the heatmap is that access to real-time payments is consistently improving across all regions, confirming their role as an integral part of the global payments mix.

Over 70 countries now have an instant payments system at a near-zero cost to the user. This is having a direct effect on the expectations of users, who increasingly view instant payments as the baseline.

Over time, more countries are progressing towards more advanced models of instant payments, characterised by a consumer-facing system which only requires a phone number or email address to transact, or a QR code to scan for in-person merchant transactions.

This moves away from gross settlement schemes such as Faster Payments UK, which require both users to have a financial account and to exchange bank account details and personal information, making it largely impossible to implement at point-of-sale. 11 countries have currently implemented these schemes at scale, all demonstrating high levels of consumer uptake.

Fig. 3.6: Countries with Nationwide Consumer-facing A2A Payment Systems

Country	System	Launch
Brazil	PIX	2020
India	UPI	2016
Netherlands	iDEAL	2005
Spain	Bizum	2016
Sweden	Swish	2012
Denmark	MobilePay	2013
Finland	MobilePay	2013
Norway	VIPPS	2015
Poland	BLIK	2015
Singapore	Paynow	2017
Thailand	PromptPay	2017

Advancements in instant payment services have been largely restricted to domestic markets, leaving a gap in expectations when it comes to sending payments across borders.

While domestic schemes are highly effective within their respective markets, they are typically built on differing technical standards, messaging formats, and governance frameworks, limiting interoperability between countries. This has introduced a new layer of fragmentation across global payment infrastructure.

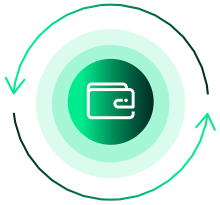
Source: Bosek-Rak et al (2026)[13]

[13] "Infrastructure or culture? Identifying determinants of consumer payments digitalization", Bosek-Rak, Kaszynski, Chutnik, March 2026, https://www.sciencedirect.com/science/article/pii/S2451958826000539

3.4.2 Alternative Financial Inclusion

Lacking access to a bank account does not necessarily equate to complete financial exclusion, particularly where alternative methods of saving and accessing money are in place. In a small minority of countries, mobile wallet ownership outstrips bank account ownership: South Korea (3.3%) Colombia (6.7%), Egypt (7.2%), Pakistan (8.6%), Indonesia (9.2%), Kenya (15.9%), and Philippines (24.9%). These countries have leapfrogged straight from a cash-heavy economy to a digital one by launching SMS payment services and mobile wallets, largely skipping over traditional banking infrastructure.

While mobile wallets have driven financial inclusion at a local level, on a global scale they often operate as closed-loop or semi-interoperable systems.



This creates a payments landscape that differs significantly from card-dominated economies. Rather than relying on global card networks such as Visa and Mastercard, transactions are often processed through domestic mobile wallet ecosystems, frequently supported by agent networks and QR-based payment methods.

For businesses, this introduces additional complexity: engaging consumers in these markets requires integrating multiple localised payment methods into checkout flows and payout systems, reducing the scalability of a single, standardised payments strategy.



3.5 Cross-border Connectivity

While progress has been made with cross-border connectivity, retail cross-border payments have not seen the same progress as wholesale cross-border and domestic retail payment systems, with people relying on remittances often falling through the gap. While domestic payments have a central authority to harmonise standards, cross-border payments lack that same co-ordination.

When examining the ease of making cross-border consumer payments, there are three key facets to consider: the cost, the speed, and the user experience.

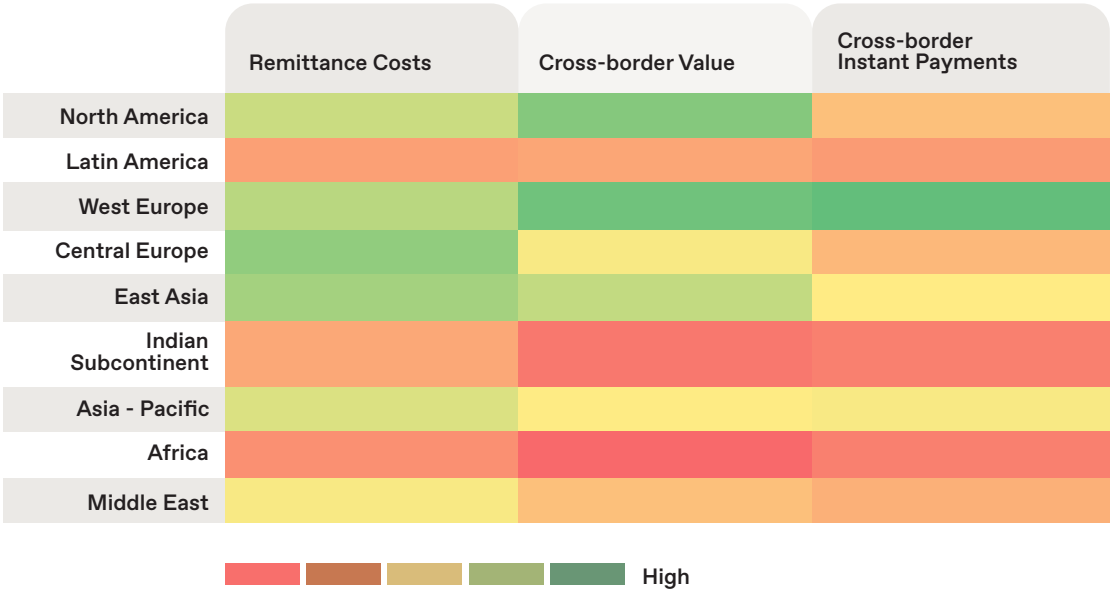
The criteria considered when measuring the connectivity of cross-border payments are:

1 **REMITTANCE COSTS**
This measures the cost of making P2P payments across borders, as measured by the World Bank. This covers banks, money transfer operators, and post office cash transfers.

2 **CROSS-BORDER VALUE**
This measures the predicted increase in cross-border payments over time across the B2B, P2P, and eCommerce sectors.

3 **CROSS-BORDER INSTANT PAYMENTS PENETRATION**
This measures the proportion of cross-border payments made via instant payment or fast payment schemes.

Fig. 3.7 Cross-border Inclusion Heatmap



European countries unilaterally top the ranking when assessing the value, speed, and cost of cross-border payments. This is in part due to the utility of a shared currency and shared regulatory standards, which makes the process of sending money from one European country to another essentially borderless.

For example, the Instant Payment Regulation, adopted by the European Parliament in 2024, requires all PSPs to allow users to send or receive instant credit transfers with no extra levy compared to standard credit transfers.

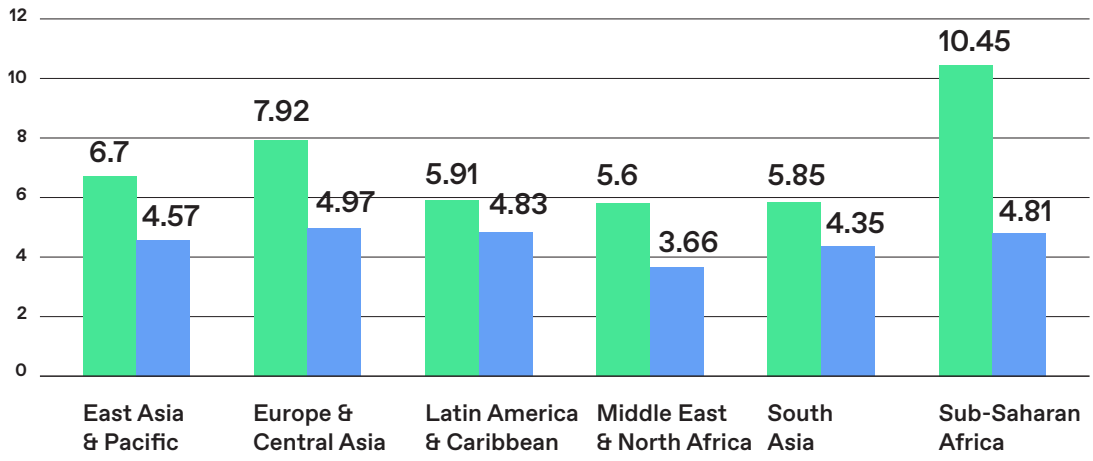
This applies to all domestic and cross-border transactions across the EU, whether a member state has the euro as currency or not. The IPR also improves the experience of corporations making batch payments, as the IPR requires that these also be settled instantly at no extra cost.

3.5.1 Remittance Costs Impact Vulnerable Households

Remittances have been shown to have a material effect on mitigating poverty[14], as well as increasing household expenditure and stimulating the local economy. As such, reducing the cost of sending remittances has been a key goal of the UN Sustainable Development Goals since 2020, when a two-fold target was set.

First, the average cost of global remittances should be lower than 3% by 2030. Secondly, no corridor should cost above 5%.[15] However, the global average of sending a remittance of $200 is 6.36%, remaining well above target. This can significantly impact vulnerable households.

Fig. 3.8 Cost of Sending $200 (%), from Outbound Region, Split by Send Method



Source: World Bank Remittance Prices

[14] Ojeyinka, T.A., Ibukun, C.O. Do remittances mitigate poverty? Evidence from selected countries in Africa, Asia and Latin America. Econ Change Restruct 57, 93 (2024). https://doi.org/10.1007/s10644-024-09666-1

[15] "Getting SmaRT about remittance price monitoring", World Bank, June 2016, https://remittanceprices.worldbank.org/sites/default/files/smart_methodology.pdf

As seen, the cost of sending remittances via cash is consistently considerably higher than a digital remittance (those sent via a payment instrument online or in a self-assisted manner). This is despite the fact that cash pay-outs and pay-ins are often vital to those who do not have mobile money or digital wallet accounts.

The total cost of a cross-border remittance is composed of transaction fees and foreign exchange (FX) margin. According to the World Bank, fees account for the majority of the cost, although this varies according to payment channel and destination corridor. For example, in Sub-Saharan Africa, digital remittance providers apply higher FX margins relative to transfer fees, reflecting currency volatility and liquidity constraints in local markets. This contributes to the higher overall cost that remitters experience in the region.

Pricing structures are therefore highly inconsistent across providers. Firms adjust their fee composition based on factors such as risk exposure, customer segment, corridor-specific competition, and commercial agreements with intermediaries. This results in a lack of standardisation in how costs are presented to users. This can cause transparency issues, especially when fees are confusingly presented or variable costs are included, such as those charged by intermediary banks.

Improving transparency can help users make optimal decisions regarding the payment channel to send their remittances through. As such, the Global Remittance Task force states that best practice includes showing the total remittance costs as a single upfront amount, as well as displaying the amount that the recipient will receive and the time it takes for the funds to reach the receiver.[16]

[16] "Ending remittance hidden fees: the international community calls for action", Word Bank, May 2021, https://blogs.worldbank.org/en/peoplemove/ending-remittance-hidden-fees-international-community-calls-action





3.6 Market Dynamics and Progress

When looking towards the future of interoperability, it is important to get a sense of the openness of the current market landscape towards payments interoperability from a policy and regulatory perspective.

In order to assess the openness of a market to new initiatives, the 'Market Dynamics' score comprises a holistic assessment of regulations indicating preparation to implementing new technology. This comprises:

1. **CROSS-BORDER PAYMENT GROWTH**
   This is based on a forecast of the percentage growth a market will experience in the next four years.

2. **CRYPTOCURRENCY REGULATION STATUS**
   This assesses the openness of the market towards cryptocurrencies as payment instruments, based on the existence of regulatory clarity towards this technology.

3. **OPEN BANKING MANDATES**
   This assesses the existence and prevalence of open banking connections in a market, based on the level of adoption by banks and consumers and regulations mandating open banking API availability.

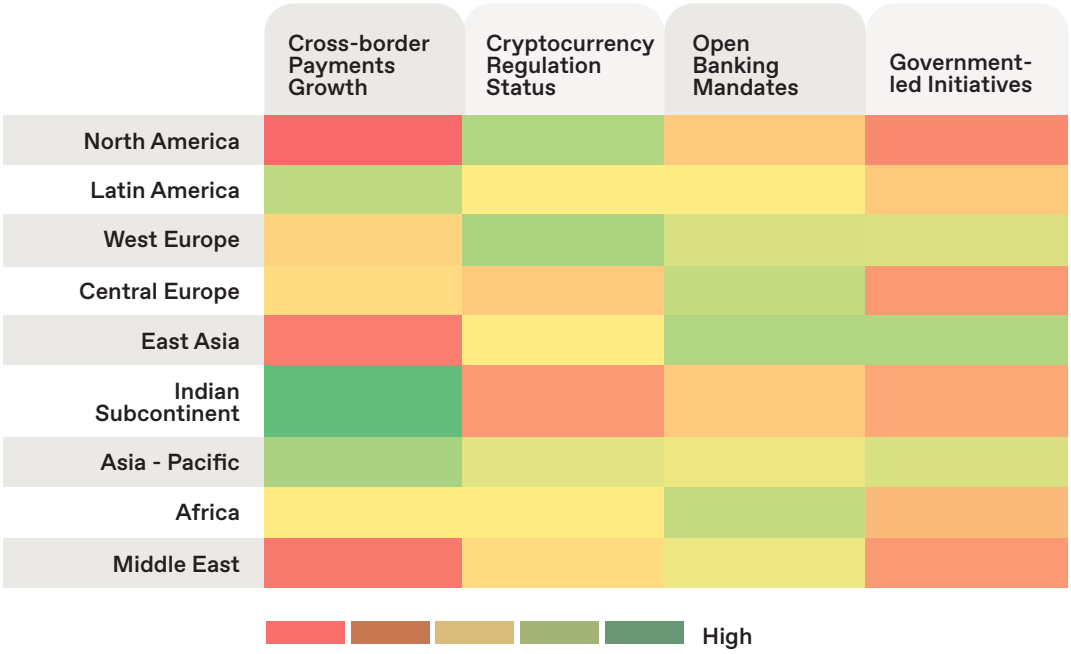
4. **GOVERNMENT-LED INITIATIVES**
   This appraises the participation of a country's central bank in cross-border interoperability initiatives, including: regulatory roadmaps, pilot participation, fast payment system linkage, and usage of common messaging standards.

Unlike the other four categories, this metric displays distinctly different patterns within the country rankings.

While the other categories are generally approximately correlated to the economic health of the country and maturity of banking systems, the Market Dynamics category remains relatively independent of this proxy.

While some Western European countries still rank within the top 10, there is more variation among them and less clustering, attributable to the individual variations in governmental approaches to technology. Instead, South Eastern Asian countries and emerging economies dominate the top of the rankings.

Fig. 3.9 Market Dynamics and Progress Heatmap



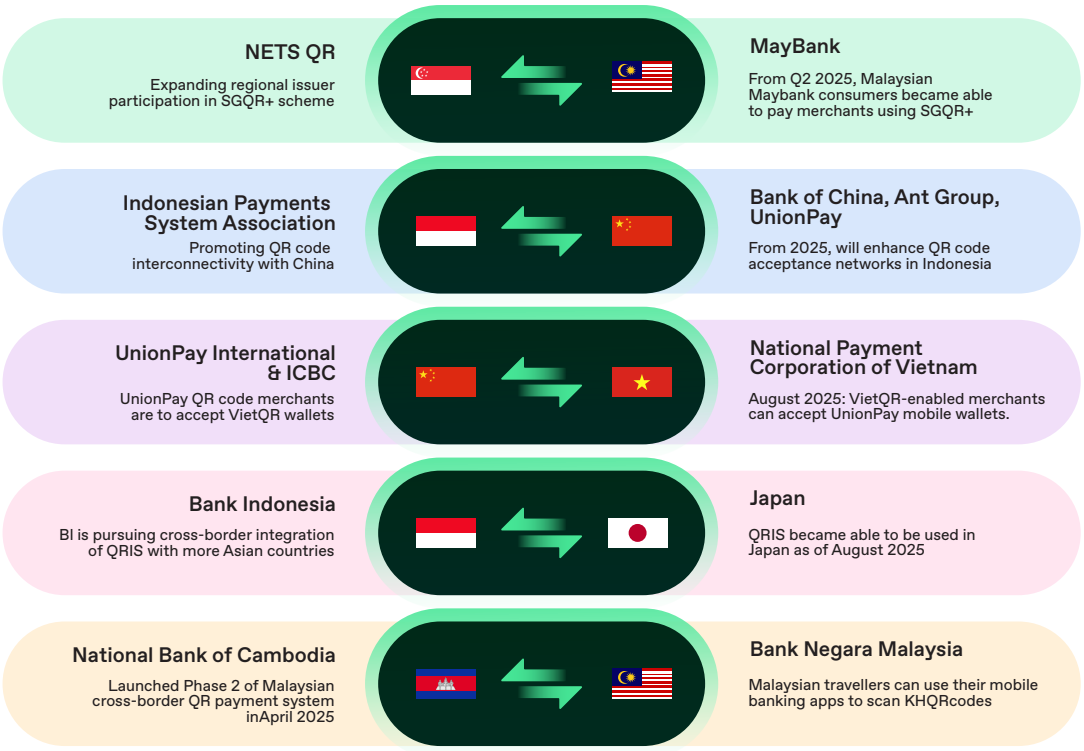
Emerging economies such as India and Brazil rank within the top 5, whereas some developed countries like Canada are in the last five. This points to how widespread usage of legacy payment methods can, in some circumstances, hinder a country's adoption of new technologies and attitude towards implementing new initiatives.

A current deficit in digital payments systems can also motivate a system-wide overhaul; for example, Brazil and India both oversaw strong uptake of their PIX and UPI systems because there were no similar existing initiatives. Developed economies would find it difficult to do the same because of existing consumer familiarity with card payments and pass-through wallets like Apple Pay.

ASEAN economies are at the forefront of multiple cross-border fast payment system linkages, with Singapore being a particular forerunner in this. The Monetary Authority of Singapore has been involved with multiple bilateral linkages, allowing users in Singapore to transfer funds directly to the bank account or e-Wallet of a user in a different jurisdiction, using just a mobile number or QR code.

For example, Singapore's PayNow system has linkages with India's UPI, Indonesia's QR payments system, Malaysia's real-time DuitNow network, Philippine's BSP, and Thailand's real-time payments system. This is in addition to being a leader of Project Nexus, a multilateral system designed to link the Eurosystem, Malaysia, and Thailand's real-time retail payments networks.

Fig. 3.10 Cross-border Initiatives in ASEAN Countries



Source: Juniper Research

3.6.1 The Potential of Open Banking for Initiating Cross-border Payments



Open banking describes the ability of the consumer to share their financial data with trusted and authorised third parties, through APIs provisioned by the bank. This is used for aggregating accounts into a single view for the consumer (e.g. in a budgeting app), and initiating variable recurring payments from a customer's account. Implementing a shared API standard and protocol is necessary for achieving data interoperability and ensuring that data can be consistently accessed and safely stored.

By breaking down traditional banking siloes and allowing third parties to access their financial data, open banking technology can automate remittances as well as enabling users to initiate cross-border payments from within their banking app. This requires banks to partner with remittance apps, which some digital neobanks have begun doing.

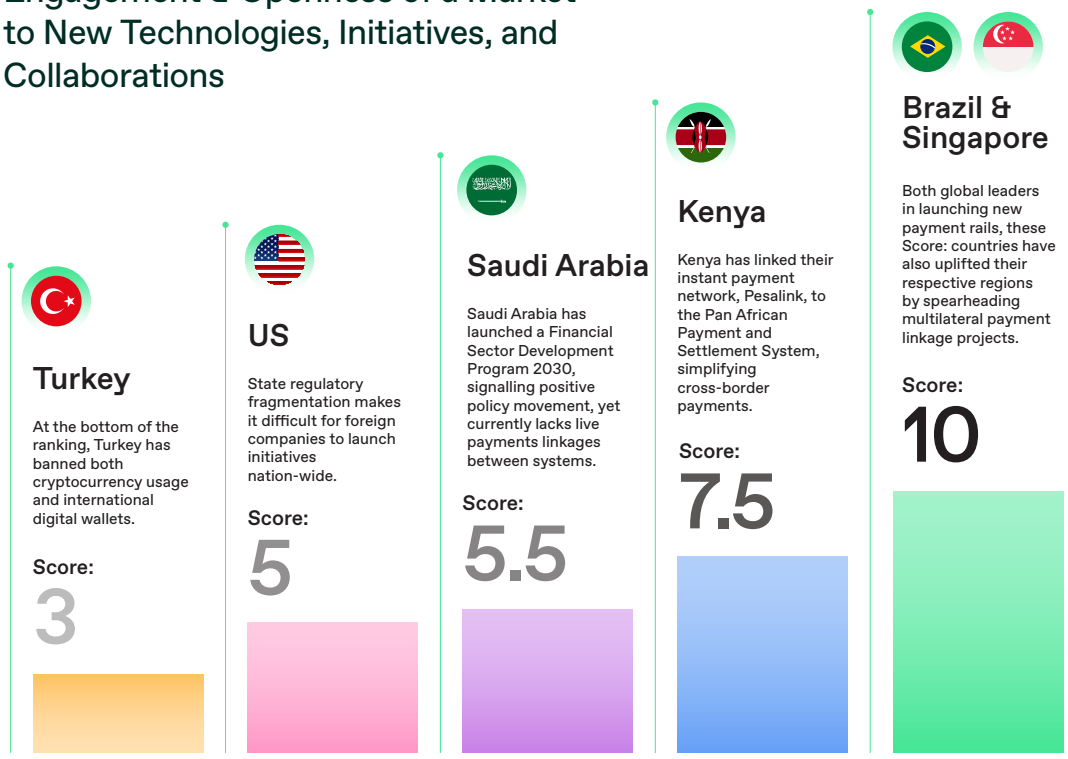
3.6.2 Stablecoins

Governmental approaches to cryptocurrencies diverge significantly between countries, with attitudes correlating less with geographic region and more with domestic regulatory philosophy and monetary sovereignty concerns. While the growth of cryptocurrency is arguably the most prominent contemporary disruptive financial technology, it has not yet reached the level of widespread adoption to be called a paradigm shift.

This is particularly the case with stablecoins, which have the potential to become a payment instrument as opposed to simply investment and trading tools, and yet face structural and regulatory frictions that inhibit scaling.

The underdevelopment of fiat on and off-ramps remains a persistent barrier to the adoption of stablecoins. Banking sectors are historically reluctant to engage with cryptocurrencies, which are viewed as risky due to existing largely in a regulatory grey area, resulting in limited infrastructure connecting bank accounts and cards to wallets.

Therefore, developed economies with card-centric economies have experienced bottlenecks in user onboarding. Where ramps do exist, converting stablecoins into fiat currencies is often costly, potentially requiring both the sender and receiver to pay high conversion fees.



This means that the most commercially viable use case for stablecoins is corridors which experience high costs in the traditional channels, generally due to being low-volume, having a long correspondent banking chain, or running into currency controls and high FX markups.

For emerging economies, the argument for stablecoin usage is far stronger, which is reflected in legislation and adoption rates. As a stable unit of account that supports commercial activity, stablecoins can offer wealth preservation to those suffering from local currency inflation or foreign exchange volatility.

For example, when Argentina experienced hyperinflation in 2023-2024, stablecoin transactions jumped to account for 60% of all cryptocurrency transactions, far above the global average.



The Interoperability Index

FULL VERSION

4

4.1 The Thunes Payments Interoperability Index, Full Version

This is the full Interoperability Index, with scoring for each category outlined.

#	Country	Region	Economic Health	Digital Infra-structure Access	Financial Inclusion	Cross-border Friction	Market Dynamics & Progress	Overall
1	Denmark	West Europe	8.8	9.5	9.5	8.9	6.0	**8.8**
2	Singapore	Rest of Asia Pacific	7.8	9.0	7.6	6.9	10.0	**8.3**
3	Norway	West Europe	8.5	8.8	7.9	9.2	6.5	**8.2**
4	Spain	West Europe	5.8	8.3	9.2	7.3	7.5	**8.0**
5	Nether-lands	West Europe	8.0	7.8	9.1	7.6	6.5	**8.0**
6	Sweden	West Europe	7.8	8.5	8.4	6.6	7.5	**8.0**
7	UK	West Europe	6.8	7.5	8.7	7.6	8.0	**7.9**
8	Switzer-land	West Europe	7.8	7.5	8.2	8.3	6.5	**7.7**
9	Austria	West Europe	6.8	7.8	7.4	8.6	7.0	**7.6**
10	Australia	Rest of Asia Pacific	7.0	7.5	7.1	7.6	8.5	**7.5**
11	Finland	West Europe	7.0	7.0	7.6	8.6	7.0	**7.4**
12	Germany	West Europe	7.0	8.0	6.5	7.3	7.5	**7.3**
13	South Korea	Far East & China	7.0	9.0	6.8	5.0	7.0	**7.2**
14	Belgium	West Europe	7.8	7.3	7.3	7.9	6.0	**7.2**
15	France	West Europe	7.0	5.8	8.0	7.9	7.5	**7.1**
16	Ireland	West Europe	8.8	5.8	7.5	7.9	6.0	**6.9**

#	Country	Region	Economic Health	Digital Infra-structure Access	Financial Inclusion	Cross-border Friction	Market Dynamics & Progress	Overall
17	Japan	Far East & China	5.0	8.0	6.7	6.9	6.5	**6.9**
18	Portugal	West Europe	5.3	7.0	6.3	7.6	6.5	**6.6**
19	Poland	Central & East Europe	4.8	6.8	6.9	5.9	7.5	**6.6**
20	Italy	West Europe	6.3	7.5	4.9	7.9	7.0	**6.6**
21	US	North America	6.8	7.5	6.6	5.9	5.0	**6.5**
22	Canada	North America	7.5	7.0	6.7	6.3	4.0	**6.4**
23	China	Far East & China	3.3	6.5	6.8	7.3	5.0	**6.2**
24	Brazil	Latin America	2.5	6.0	6.4	3.6	10.0	**6.0**
25	Hungary	Central & East Europe	5.5	5.3	6.7	6.6	5.5	**6.0**
26	Croatia	Central & East Europe	5.3	5.8	5.7	7.6	5.5	**5.9**
27	New Zealand	Rest of Asia Pacific	6.8	6.3	5.3	6.3	5.5	**5.9**
28	Malaysia	Rest of Asia Pacific	4.0	6.0	6.1	5.0	7.0	**5.8**
29	Thailand	Rest of Asia Pacific	3.5	4.8	6.5	5.3	7.5	**5.6**
30	India	Indian Sub-continent	1.3	2.5	7.3	6.9	9.0	**5.5**
31	United Arab Emirates	Middle East	6.8	5.3	5.2	5.3	5.5	**5.4**
32	Saudi Arabia	Middle East	4.5	5.0	4.9	4.3	5.5	**4.9**
33	Mexico	Latin America	4.0	3.3	5.7	2.6	7.5	**4.6**

#	Country	Region	Economic Health	Digital Infra-structure Access	Financial Inclusion	Cross-border Friction	Market Dynamics & Progress	Overall
34	Chile	Latin America	4.8	4.3	4.4	3.0	6.0	**4.4**
35	Kuwait	Middle East	8.0	4.3	3.3	4.6	3.5	**4.3**
36	Kenya	Africa	1.3	3.3	5.9	1.7	7.5	**4.2**
37	Indonesia	Rest of Asia Pacific	2.0	3.0	4.1	5.9	6.0	**4.1**
38	Turkey	Central & East Europe	4.0	4.3	5.0	2.3	3.0	**4.0**
39	Argentina	Latin America	3.3	3.8	4.5	3.0	4.5	**3.9**
40	Vietnam	Rest of Asia Pacific	2.8	3.5	4.1	3.6	5.0	**3.8**
41	Qatar	Middle East	5.5	4.8	2.9	3.0	3.5	**3.8**
42	Philippines	Rest of Asia Pacific	2.0	2.8	3.3	4.3	7.5	**3.8**
43	Nigeria	Africa	3.3	2.5	5.0	1.3	5.5	**3.6**
44	South Africa	Africa	3.3	2.5	4.1	3.0	5.5	**3.6**
45	Colombia	Latin America	3.3	3.0	3.5	2.6	5.0	**3.4**
46	Peru	Latin America	4.5	1.8	3.8	3.0	4.0	**3.2**
47	Egypt	Africa	2.5	1.8	3.8	1.7	5.5	**3.0**
48	Bangla-desh	Indian Sub-continent	2.5	1.3	4.3	1.0	4.5	**2.7**
49	Nepal	Indian Sub-continent	1.3	1.8	4.6	0.7	4.0	**2.7**
50	Pakistan	Indian Sub-continent	0.8	1.3	4.6	0.7	5.0	**2.7**

Conclusion

5

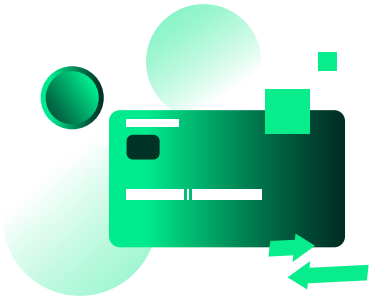
Conclusion

The Thunes Cross Border Payments Interoperability Index reveals a global picture that is more complex, and in several respects more troubling, than the headline narrative of digital payments progress would suggest.

The broad trajectory of improvement is real: more than 70 countries now offer real-time domestic payment systems; mobile wallets have displaced banks as the front-end channel of choice for cross-border transfers across most surveyed markets; emerging economies in Brazil and India have demonstrated that it is possible to build world-class payment infrastructure without being constrained by the legacy systems that burden developed markets. These are genuine advances.

Yet this report surfaces a more uncomfortable set of findings.

The United States ranks 21st overall. The world's largest economy, and the country whose currency underpins the majority of global remittance flows, sits below Portugal, Belgium, South Korea, and Australia. More specifically, it scores 5.0 on Market Dynamics, placing it below Brazil, India, Thailand, Kenya, and Mexico on regulatory openness and progress.



It remains common in the US for a restaurant server to take a card from a diner and disappear into another room to complete a transaction, or to request a signature to confirm payment. But frustrations around slow adoption of contactless payments in hospitality is shorthand for wider concerns about the state of its domestic payments capabilities and those to foreign recipients.

More than half of US payees making overseas transactions are not shown the final recipient amount upfront. Seventy-seven per cent of those receiving cross-border payments in the US report experiencing at least one issue, the highest figure of any surveyed country. These are not the hallmarks of a payments market commensurate with the country's economic weight, and they represent an opportunity that is going unaddressed.

Brazil presents a different but equally instructive paradox. PIX is, by any objective measure, one of the most successful domestic instant payment implementations in the world. Brazil ties with Singapore for a perfect score of 10 on Market Dynamics. And yet Brazil ranks 24th overall, with a cross-border connectivity score of 3.6, and 42% of those receiving international payments wait two or more days for funds to arrive.

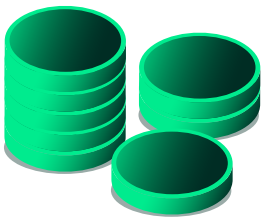
The implication matters beyond Brazil itself. Where a domestic real-time rail sets a new expectation baseline, the relative experience of a slow or opaque international transfer becomes more painful, not less. Excellent domestic infrastructure built in isolation can widen the perceived cross-border gap rather than narrowing it, creating an Alice in Wonderland challenge for payment providers, where keeping up with innovation demands increasingly rapid innovation, and they must run just to stay in the same place.

A parallel dynamic is visible in Europe. The strength of SEPA, Faster Payments, and the Instant Payment Regulation has made intra-regional transactions seamless and near-free. But this success throws the inadequacy of extra-regional payments into sharper relief.

A small business owner in Croatia sending funds outside SEPA faces fees up to twelve times higher than an equivalent intra-European transfer. Sophisticated European consumers, with access to fintech alternatives and financial comparison tools, are well positioned to identify FX margin opacity even where transaction fees have been eliminated. The frustration reported in European markets may therefore reflect greater awareness of extraction rather than objectively worse outcomes. The standard has been raised inside the region, while the world outside it has not kept pace.

The human cost of this incomplete progress is not abstract. Among recipients wholly dependent on remittances from family, 83% experienced at least one issue over the past twelve months. One in three struggled to pay for essential expenses including food, rent, or utilities as a result of payment disruptions. Nearly a quarter reported that payment difficulties had strained relationships with family members sending support.

The global average cost of sending $200 remains at 6.36%, more than double the UN Sustainable Development Goal target of 3% that was set a decade ago. The gap between that commitment and current reality is disappointing.



The gig economy adds further urgency. Gig workers are disproportionately engaged in cross-border payments, disproportionately exposed to high fees and transparency failures, and disproportionately affected when those systems underperform. Eleven per cent have lost or turned down work opportunities because of payment infrastructure constraints. That twenty-three per cent have adopted stablecoins, compared to 6% of non-gig workers, reflects an organic, demand-driven migration toward alternative rails that is already occurring at meaningful scale, and the payments industry needs to respond to it as such.

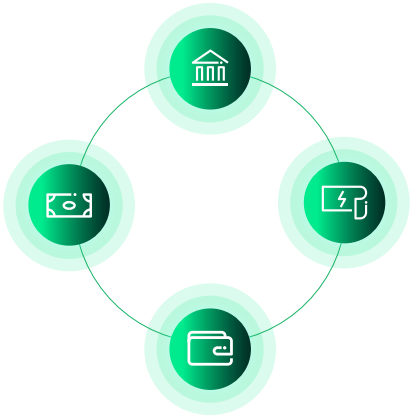
The stablecoin question more broadly has intriguing local nuances that merit further, specific study. Adoption is highest in the markets where traditional systems have failed most visibly, most notably Nigeria, where 29% of those surveyed use stablecoins and awareness of digital assets is significantly above the global average.

The on and off-ramp problem remains a genuine barrier to scale. But the infrastructure for connecting stablecoin settlement to mobile wallets and local currency conversion is advancing, and the commercial logic for embedding stablecoins as a middle-leg settlement layer within traditional money transfer operations is compelling in high-cost, low-volume corridors.

The question is no longer whether stablecoins will play a role in cross-border payments – they already are – but how quickly the last-mile connectivity problem will be resolved in each respective market.

What the Index ultimately demonstrates is that interoperability is not a single problem with a single solution. It is a layered challenge that sits at the intersection of regulatory alignment, technical standardisation, commercial incentive, and the lived financial realities of people who depend on cross-border payments for their economic survival.

Progress on one dimension, whether domestic infrastructure, fee regulation, or digital wallet penetration, does not automatically translate into progress on the others and indeed in some circumstances can increase pressure there.



The markets that score highest in this Index are those where these dimensions have advanced in concert: where regulatory frameworks have supported technical standardisation, where government-led initiatives have created the conditions for private sector participation, and where the resulting infrastructure has reached the population in forms they can access and trust. Singapore's position at second overall is the clearest example of what is achievable when those conditions are in place.

The distance between that model and the experience of the 83% of remittance-dependent recipients who encountered problems last year is the distance that the payments industry, regulators, and international policymakers still need to close.

Appendix

6

6.1 Survey Methodology

6.1.1 Geographic and Household Income Coverage

The survey recruited respondents online, including individuals who had experience sending money internationally as well as those who had not. Respondents represented a broad cross-section of people across income thresholds.

The sample was designed to capture a range of perspectives on cross-border payments, including both active users and non-users of international money transfer services.

Fig. 4.1 Number of Respondents Recruited per Country

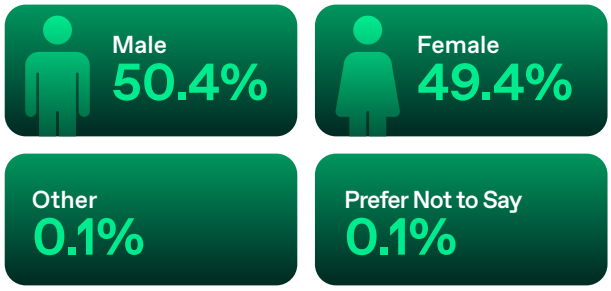
Country	Number of respondents
China	1,026
US	1,013
UK	1,011
India	554
Nigeria	549
Brazil	541
Philippines	527
Germany	519
South Africa	516
Saudi Arabia	507

6.1.2 Sampling and Recruitment

Participants were recruited via online panels using pre-defined screening criteria to ensure respondents were located within the chosen countries. Screening questions were used to identify respondents based on their experience with sending and/or receiving international payments.

A balanced sample across key demographic groups was achieved:

Fig. 4.2 Survey Sample Demographics by Country



6.1.3 Data Collection

The survey was conducted online using a structured questionnaire. A total of 6,763 completed responses met all screening criteria and quality checks and were included in the final analysis. Data collection took place over the period of April 2026.

6.1.4 Survey Instrument

The questionnaire consisted of 44 questions and was designed to capture behaviours, preferences, and experiences related to cross-border payments. Participants were routed to one of four versions of the survey based on their responses to initial screening questions:

- Respondents who both sent and received international payments were shown the full survey.
- Respondents who neither sent nor received international payments were shown a shorter version consisting of 17 questions.
- Respondents who only sent or only received international payments were shown relevant sections tailored to their experience.

This routing approach ensured that questions remained relevant to each participant while minimising respondent burden.

Limitations
As with all survey-based research, the findings are subject to certain limitations:

- The survey was conducted online, which may exclude individuals without internet access or those less likely to participate in digital panels.
- Responses are self-reported and may be subject to recall bias or social desirability bias.
- Finally, as the survey was carried out in April 2026, the results capture responses at this point in time. Changes in economic conditions or regulations may affect consumer attitudes or experiences after this point.

6.1.5 Interoperability Index Methodology

The Payments Interoperability Index was developed to assess the accessibility and ease of making payments across borders. This was assessed via five core dimensions, designed to capture different aspects of interoperability. The dimensions are as follows:

Economic Health: This is designed to capture the macroeconomic environment of the countries, as well as the human and social experiences of living within this. This assessed measures including GDP, trade openness, volume of operating businesses and quality of life.

Digital Infrastructure: This measures how connected citizens are to the internet, as well as the proportion of the adult population who have made or received a digital payment in the past 3 months.

Financial Inclusion: This uses measures such as wealth inequality, access to bank branches, and the proportion of the adult population who have a formal financial account or mobile money account.

Cross-border Connectivity: This measures factors such as the cost of sending and receiving remittances, the proportion of consumer transactions made via instant payment schemes, and the overall value of the cross-border payments market

Market Dynamics and Progress: This measures the progress of various regulatory and government mandates designed to improve the money transfer market, such as government-led initiatives, open banking mandates and cryptocurrency regulations. In order to assess the potential of the market, it also assesses the forecast growth in the market.

The score given in each dimension reflects a set of measurable indicators. These were sourced from a variety of reliable sources: for example, the Global Findex Database 2025, which is a demand-side survey of 145,000 adults in 141 economies. This provides data on how adults around the world use both formal and informal financial services to save, borrow, make payments, and manage financial risk.

Also used was World Bank data regarding remittance costs around the world. The World Bank releases quarterly releases with the SmaRT indicator the simple average of the three cheapest qualifying services for sending the equivalent of $200 in each country.

This aims to reflect what a savvy consumer with access to sufficiently complete information could pay to transfer remittances in each corridor. Services qualify if they make the payment in five days or less, as well as being accessible by geographic proximity (e.g. to branches) for services that require physical presence.

To ensure that the Interoperability Index represented a holistic view of market dynamics, a qualitative assessment of various metrics was conducted. This used central bank publications and government releases on national digital payment strategies to assess the openness of the market to technological shifts, such as the presence or absence of cryptocurrency regulations and participation in cross-border fast payment system linkage pilots.

Finally, in-house data regarding the value of cross-border payments and the proportion of payments made via instant payment schemes were utilised for the index. Further information on these can be found in the report Cross-border Payments Market 2026-2030.

Thunes Profile

7.1

7.1.1 Corporate

About Thunes.

Thunes is the Smart Superhighway to move money around the world. Thunes' proprietary Direct Global Network allows Members to make payments in real-time in over 140 countries and more than 90 currencies. Thunes' Network connects directly to over 12 billion mobile wallets, stablecoin wallets and bank accounts worldwide, as well as 15 billion cards via more than 220 different payment methods, such as GCash, M-Pesa, Airtel, MTN, Orange, JazzCash, Easypaisa, AliPay, WeChat Pay and many more. Thunes' Direct Global Network differentiates itself through its worldwide reach, in-house SmartX Treasury System and Fortress Compliance Platform, ensuring Members of the Network receive unrivaled speed, control, visibility, protection, and cost efficiencies when making real-time payments, globally. Members of Thunes' Direct Global Network include gig economy giants like Uber and Deliveroo, super-apps like Grab and WeChat, MTOs, fintechs, PSPs and banks. Headquartered in Singapore, Thunes has offices in 14 locations, including Atlanta, Barcelona, Beijing, Dubai, Hong Kong, Johannesburg, London, Manila, Nairobi, Paris, Riyadh, San Francisco and Shanghai.

For more information, visit:
https://www.thunes.com

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7.1.2 Geographical Spread

Headquartered in Singapore, Thunes has 14 offices in locations including Atlanta, Barcelona, Beijing, Dubai, Hong Kong, Johannesburg, London, Manila, Nairobi, Paris, Riyadh, San Francisco, and Shanghai. The company's network reaches over 130 countries across the globe.

7.1.3 Key Clients and Strategic Partnerships

- Major Thunes customers ('Members') include Banque Saudi Fransi, Deliveroo, D360 Bank, Grab, Mastercard, PayPal, Ripple, Uber, Visa, and WeChat.
- Thunes operates in over 130 countries and holds more than 50 licences worldwide. The company supports over 320 payment methods, and reaches over 7 billion mobile wallets and bank accounts, 500 million stablecoin wallets, and 15 billion cards.
- Thunes supports diverse payments systems; enabling banks and neo-banks, mobile wallet operators, gig economy platforms, marketplaces, digital asset companies, corporations, merchants, and Money Transfer Operators (MTOs) to move funds across borders in real time.
- January 2026, UnionPay International: established a direct integration with UnionPay to streamline real-time payments into China for cardholders across 79 major Chinese banks.
- January 2026, Sterling Bank: collaborated with this Nigerian commercial bank to launch instant cross-border payments for the Nigerian diaspora; beginning in Europe and expanding globally.
- November 2025, MTN MoMo Payment Service Bank (PSB): partnered with Africa's largest mobile network operator to enable millions of Nigerians to receive instant international funds into MoMo wallets.
- November 2025, Mastercard: joined forces with Mastercard Move to enable near real-time payouts to stablecoin wallets; providing 24/7 liquidity and settlement options.
- November 2025, Mashreq: partnered with the UAE-based bank to launch real-time mobile wallet payouts across 30 key international corridors.
- November 2025, WeChat Pay HK: deepened the Tencent alliance to allow WeChat Pay HK users in Hong Kong to send real-time global remittances via Thunes.
- October 2025, Banque Saudi Fransi (BSF): enabled BSF's retail and business customers to send secure international transfers to accounts and wallets in over 130 countries.
- September 2025, SWIFT (Pay-to-Banks): expanded the SWIFT partnership to allow 11,000 banks to send instant payouts to 4 billion bank accounts globally via Thunes' infrastructure.
- September 2025, barq: successfully went live with real-time international remittance services for millions of barq digital wallet users in Saudi Arabia.
- September 2025, Ripple: enhanced the alliance to drive efficient cross-border payments; allowing Ripple's enterprise customers to withdraw funds in new currencies and regions.
- March 2025, Taiwan Expansion: launched real-time financial transactions in Taiwan, supporting both New Taiwan Dollars (TWD) and US Dollars (USD).
- January 2025, Hyperwallet (a PayPal service): partnered to enhance digital wallet payments and payout reach across Southeast Asia for platforms and marketplaces.
- November 2024, Ecobank Group: formed a pan-African alliance to expand access to credit and cross-border payment solutions across 33 countries.

- October 2024, SWIFT (Pay-to-Wallets): launched a breakthrough capability allowing financial institutions to use their existing SWIFT messaging to send real-time payments directly to three billion mobile wallets.
- October 2024, Circle: partnered to launch stablecoin-powered liquidity management; allowing network members to use USDC for 24/7, near-instant settlements.

7.1.4 High-level View of Offerings

Thunes is a 'smart superhighway' to move money around the world, with a proprietary Direct Global Network that connects banks, mobile network operators (MNOs), mobile wallets, PSPs, and digital asset providers across 130 countries. The Network bridges fragmented payment systems; reaching over seven billion mobile wallets and bank accounts via a single API connection. Thunes offers the following cross-border payments services:

A) PAY SOLUTIONS (OUTBOUND DISBURSEMENTS)

The 'Pay' pillar is designed for fast, real-time payouts to virtually any account type globally. It includes:

- **Pay-to-Wallets:** pay to more than 120 different mobile wallet brands globally
- **Pay-to-Banks:** 60+ local real-time payment systems connected
- **Pay-to-Cards:** instant payouts to 15 billion cards and all major card networks
- **Pay by QR code:** enables travellers to make local payments in China
- **Pay-to-Stablecoin-Wallets:** launched in October 2025, the Pay-to-Stablecoin-Wallets solution allows 24/7 payouts in USDC and USDT to millions of wallets worldwide, using the same fiat API to bridge traditional and digital finance.

REMITTANCE PAYMENTS [C2C]
A payment solution that empowers remittance providers to expand into new markets, scale new corridors, or optimise key routes. Global MTOs and banks, such as Remitly, PayPal, D360 Bank, the United Nations Federal Credit Union (UNFCU), Western Union, and Ria leverage Thunes' Direct Global Network for remittance solutions.

MASS PAYOUTS [B2C]
A payment solution that allows organisations to pay multiple recipients at once, across countries and currencies, with flexible payout options. This includes Pay-to-Wallet features that support high-volume, small-value use cases such as marketing incentives, rewards, and gig payouts. Companies can empower workers to be paid how they prefer, in 130+ countries and 80 currencies, with instant, transparent payouts to wallets, banks, cards, and stablecoin endpoints worldwide.

Business Payments [B2B]: Launched in April 2025, this payment solution streamlines business payments through a single API; offering faster processing and full visibility into transactions. Thunes enables payouts in 30+ currencies, including USD, EUR, and CNY, across 50+ countries, covering key markets such as Brazil, Canada, China, Europe, Hong Kong, India, Mexico, Singapore, and the UK. Businesses can pay suppliers in local currencies to reduce FX and reconciliation costs, while also processing USD payouts to 170+ countries.

B) ACCEPT SOLUTIONS (INBOUND COLLECTIONS)

The 'Accept' pillar focuses on localised user experience to drive higher conversion rates.

LOCAL PAYMENT METHODS

Thunes supports 320+ payment methods, including mobile wallets (M-PESA, WeChat Pay), bank payments (HSBC, ICBC), digital vouchers (Sodexo), and Buy Now, Pay Later (BNPL) options such as Grab's PayLater.

ACCEPT [C2B]

A payment solution that enables international businesses to accept payments globally and settle locally. End user customers can pay using their preferred local methods, while Thunes Members receive funds in their home currency. With a single API, businesses can access 60+ local and alternative payment methods at minimal cost; simplifying cross-border collections and improving the customer experience.

GLOBAL ACCOUNTS

A payment solution that streamlines cross-border collections by enabling businesses to collect funds from customers in their local currencies, currently GBP and EUR, without opening bank accounts in every market or incurring high conversion fees.

C) FOUNDATIONAL INFRASTRUCTURE

Thunes' solutions are underpinned by three core, foundational pillars:

1. **DIRECT GLOBAL NETWORK**
   A proprietary, real-time digital rail with 99.99% uptime; facilitating instant transactions and enriched data reporting.

2. **SMARTX TREASURY SYSTEM**
   In-house engine that powers the network. It uses AI-driven forecasting (Mamba) and centralised processing (Cobra) to optimise liquidity, FX, and 24/7 pre-funding. Thunes offers stablecoin pre-funding to support enhanced liquidity management, following a partnership announced with Circle in October 2024.

3. **FORTRESS COMPLIANCE PLATFORM**
   An advanced management platform backed by 50+ regulatory licences. It embeds real-time AML/sanctions screening and Dynamic Risk Scoring directly into every payment flow to ensure global regulatory integrity.

Thunes.

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