

GOING GLOBAL WITH LOCAL PAYMENTS

*Why Alternative Payments Methods Are Crucial for
Online Retailers - And How You Master Them*



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EXECUTIVE SUMMARY

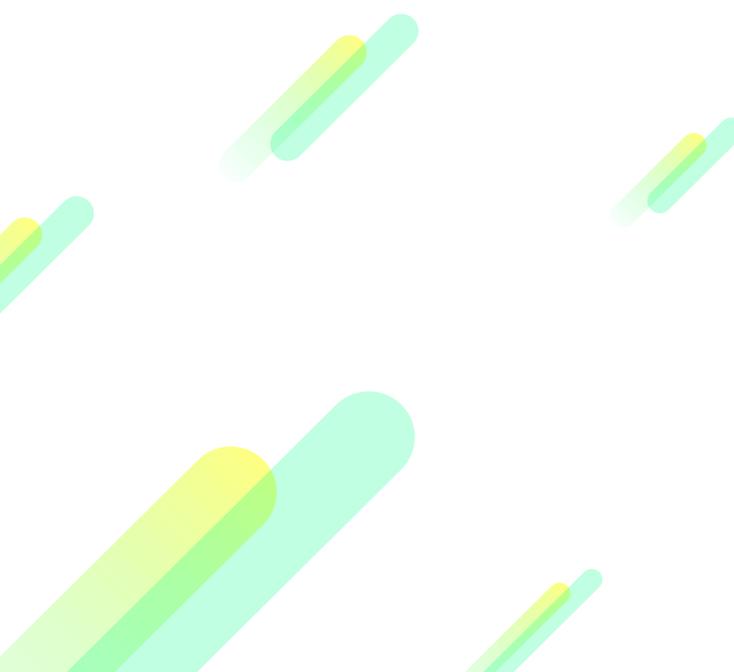
In modern online retail, your customers don't live just around the corner. On the contrary: As a successful, sustainable e-commerce business, you need to increase penetration in foreign markets. In doing so, you measure yourself not only with the competition, but also with the expectations of your customers. You need to keep an eye on local trends and provide customers with a personalized, confidence-inspiring buying experience.

Alternative payment methods are a crucial factor here. Global payment schemes like the major credit cards might suffice to run the basic payment processes in your platform. But local alternatives are rooted in regional payment culture and local fintech companies, giving customers a feeling of familiarity. Yet, no two payment cultures are alike. Aiming for a new geographic market, you need to have two factors sorted out: First, you need to know the local shopping and payment customs, the payment players and the market share of all payment methods.

Second, you need a plan on how to integrate the payment methods you want to offer. The technical factor often proves complex here – even more so if you want to scale rapidly. Building up a platform's payment portfolio, one single PSP integration in isolation, is not an option in the fast-paced global e-commerce industry.

The following pages will thus provide you with starting points and best practices on how to incorporate alternative payments into your business strategy. It gives an overview of the types of payment methods, where on the globe they are prevalent and how your business will benefit from giving your customers access to them.

This document rests on our expertise in building payment solutions that are active in more than 50 countries worldwide. It introduces you to common challenges of local payment method integration – and how you can overcome many of them by relying on a custom payment orchestration system.



ABOUT THE AUTHORS

This whitepaper was researched and compiled by the payment experts at trimplement.

For over a decade, trimplement has created payment and digital wallet solutions for top-tier businesses like BMW, Delivery Hero, Rocket Internet and Deutsche Bank, allowing them to increase customer satisfaction and conversion. With a team of international developers trimplement builds custom-tailored, secure software - based on proven,

mature technologies and fit for the complex requirements of digital finance. Solutions by trimplement handle transactions in over 50 countries worldwide in a multitude of currencies.

We're looking forward to telling you more:

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Head of Content

Over the course of 5 years, Christoph Laurer has been leading content strategy and research at trimplement producing blog articles, white-papers, and social media content on topics related to fintech and e-commerce, and providing in-depth analysis of complex subjects such as KYC compliance for fintech companies and the latest trends in cross-border transactions and payment analytics.



NATALLIA MARTCHOUK

Co-Founder

Natallia Martchouk is one of the three co-founders and directors at trimplement. Holding a Master of Computer Science, she has worked as a software engineer in the financial industry since 2006, before she established trimplement in 2010. Natallia is also always keeping step with new developments in technology and entrepreneurship and has been creating insightful articles about blockchain technology, the platform economy and the state of global fintech, among other topics.

DEFINITIONS

Payment technology comes in many shapes and shades - going by a variety of terms. It's important to define the subject of local payment methods and look at the processes and global prevalence of various forms of them.

THE SCOPE OF LOCAL PAYMENT METHODS

Before getting into the specifics of Local Payment Methods it makes sense to give an overview of the subject and define the boundaries.

LOCAL PAYMENT VS. GLOBAL PAYMENT

The term **Local Payment Method** or LPM stands in contrast to Global Payment Method or GPM. The latter includes common global credit card schemes like Visa and Mastercard. Those dominate the field of payment methods and can rely on being accepted nearly everywhere.

Local payment methods have a different scope than those global schemes. Originally, they were mostly used in a specific region of the world. Thus, LPMs act as alternatives to credit cards.

This aspect of “presenting an alternative” is what we focus on in this white paper. As such, we will often

refer to LPMs as Alternative Payment Methods or APMs, too. You might also read about Alternative Methods of Payment (AMOPs) in a few places. Those terms are more descriptive of the subject: It’s hard to find a payment method exclusive to one single country. The wide-scale payment technologies and common ways of payment are often used across nations. And their share in the overall global market increased in recent years.

So while for example Oxxo only operates in Mexico as a payment provider, the voucher payment method is prominent all over South America.

As we will mostly look into the e-commerce sphere here, we have to narrow down the definition a bit more. Following this, we will understand Local or Alternative Payment Methods as:

Any payment method with a regional appeal being used for online transactions which is not a credit card of a major global credit card scheme.



“PAYMENT METHOD”: THE WAY IN WHICH A MONETARY TRANSACTION BETWEEN A CUSTOMER AND A MERCHANT OR SERVICE PROVIDER IS AUTHORIZED AND PROCESSED.

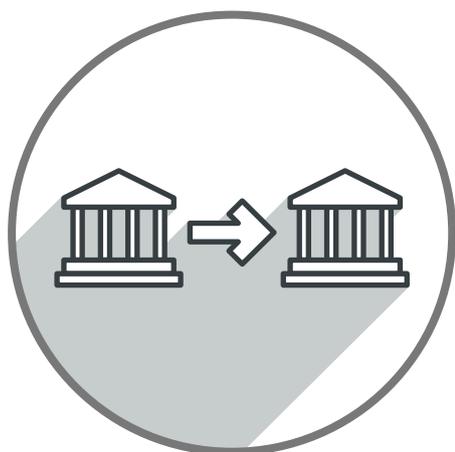
TYPES OF ALTERNATIVE PAYMENT METHODS

LPMs/APMs can take many shapes, each with its own infrastructure and user base. They differ from each other in their exact processes (including eventual security, anti-fraud, and anti-risk measures), but also in popularity and prevalence. Some payment methods are more popular in specific parts of the world due to local payment trends.

Also, regulations and infrastructure play a role in the distribution of payment methods as does overall access to financial services. Access to certain payment methods on a specific e-commerce platform may also be restricted on an individual level, based on risk level, the creditworthiness of the customer, payment amount and other criteria.

Common payment methods used around the globe include:

- Bank Transfers
- Instant Bank Transfers
- Direct Debit
- Purchase-on-Account
- Electronic Wallets
- Buy Now, Pay Later
- Cash-on-Delivery
- Voucher Payments
- Prepaid Cards/Gift Cards
- Direct Carrier Billing
- Cryptocurrency Payments



BANK TRANSFERS

Also called: Wire Transfers

The term describes the exchange of funds via a network administered by banks and agencies for transfer services. Bank transfers happen between a sending and a receiving bank. Regional standards determine the protocol, the security regulations, the minimum and maximum amount of funds transferred and the fees charged in such transactions.

How Does It Work?

- The payer receives a unique reference text as well as details of the bank account where they can make their payment.
- The payer initiates the transaction from their bank account at a branch or on an online banking platform.
- The funds are sent to the payee's bank - this typically happens asynchronously in-batch with other payments.
- In some cases, the sending bank may keep a fee. Also, for international transactions, the fee might be split between the payer and the payee.

Where Is It Widely Used?

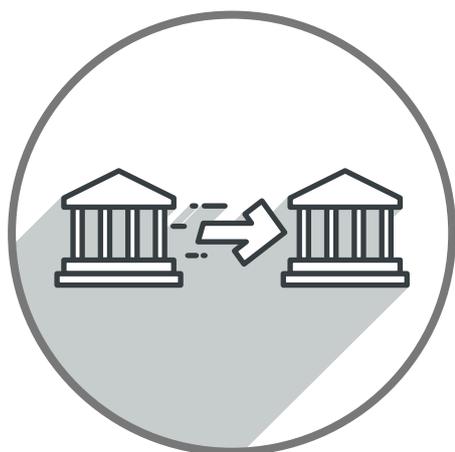
For bank transfers, access to a bank account is necessary. The number of easily accessible bank branches no longer plays a huge role here: Neo-banks (banks that don't field branch offices but exist only online) as well as many members of the old banking guard offer online account registration. However, this only shifts the problem. Instead of access to banking branches, access to the internet is the limiting factor. Moreover, potential customers must be able to meet the bank's requirements for opening an account.

Consequently, bank transfers have limited prevalence in regions with a high population of unbanked people. In 2018, this was true for 1.7 Billion people worldwide, according to data from the World Bank.¹ Most of those people live in Sub-Saharan Africa, in relative frequency. Digital-first Neobanks have helped reduce those numbers.

Example Providers

Every national bank provides bank transfers. They are connected via an automatic clearing network, corresponding to the region they operate in. Examples of networks that facilitate bank transfers include:

- Automated Clearing House (ACH), operating in the USA
- Bacs Payment Schemes Limited (BACS), operating in Great Britain
- Single Euro Payments Area (SEPA), operating in Europe
- Society for Worldwide Interbank Financial Telecommunication (SWIFT), operating globally for cross-border transactions



INSTANT BANK TRANSFER

*Also called: Fast Bank Transfer,
Real-Time Bank Transfer*

Instant bank transfers are a variation of bank transfers, taking the form of instant payments. The main difference is the factor time: The money from an instant bank payment arrives at the payee's bank account almost immediately after the payer initiates the transaction. The instant bank transfer only takes seconds, whereas the clearing of a regular bank transfer takes 2 – 3 business days. Business days, mind you – instant bank transfers typically work 24/7, 365 days a year. Those traits make instant payments very valuable for specific business models such as food delivery.

How Does It Work?

Instant bank transfers follow the same procedure as regular bank transfers, with a few tweaks:

- The payer gets the unique reference text and the bank account details for the payment.
- The payer initiates the transaction from their bank account.
- The funds are immediately sent to the payee's bank.
- In some cases, the sending bank may keep a fee. Also, for international transactions, the fee might be split between the payer and payee.

This process may vary from network to network. In addition, there are instant bank transfer systems that focus on online banking and digital payments. Examples would be iDEAL from the Netherlands and Sofortüberweisung from Germany.

They work a bit differently. Sofortüberweisung does it like this: At checkout, the payer chooses SOFORT transfer as a payment method. They are redirected to the SOFORT payment page and log into their online banking account there. Then, they confirm the payment by e.g. entering a PIN, TAN or using another 2FA procedure depending on the bank. SOFORT instructs the payer bank to transfer the money from the payer's account to the payee's account. Thus SOFORT acts as a payment initiator in that transaction.

Where Is It Widely Used?

Digital transformation and the spreading of mobile phones (and thus, mobile banking) accelerate the adoption of instant payment in many nations with banked populations. Today, more than 18 instant payment schemes are in operation worldwide. This not only matches customers' preferences. It also sits well with service providers in the gig economy. Yet in some countries, notably Brazil, instant payments have been introduced a few years ago, but still have to catch on with the general public.

Example Providers

As with bank transfers, several national banks can become part of regional bank initiatives to process transactions instantly via the bank networks, e.g.:

- SEPA Instant Credit Systems (SCT Inst) in the EU
- Faster Payments Service (FPS) in the UK
- The Clearing House RTP Network in the USA
- Immediate Payment Service (IMPS) in India

Typical national Instant Bank Transfer providers are:

- iDEAL in the Netherlands
- SOFORT in Germany



DIRECT DEBIT

Also called: Direct Withdrawal

This Payment Method is similar to Bank Transfers but with switched roles. Instead of the customer triggering the transaction and entering the payment data, they give the payee permission to withdraw the funds for due payments. To do so, the customer fills in a Direct Debit Mandate form at their bank. Usually, that's only done once per shopping platform, merchant or service provider and can then simply be chosen as a payment method during checkout. Typically Direct Debit is used for recurring payments/subscriptions.

How Does It Work?

- The payer initiates the payment transaction and chooses Direct Debit as the method.
- The payer fills in a Direct Debit Mandate, giving the payee permission to withdraw money from the payer's bank account (they only have to do this once, for the first transaction with that payee/payer pair)
- The request is passed on to the payee's direct debit facilitator - this can be a bank or a direct debit service provider that handles direct debit on the customer's behalf.
- The direct debit facilitator initiates a transaction with the payer's bank
- The funds are transferred to the payee's bank.

Where Is It Widely Used?

Direct debit belongs to the standard payment processes banks typically offer. Thus, it is prevalent in banked societies. In Europe, it's one of the major payment methods in Germany. And by far: In 2020, German customers conducted three times as many direct debit transactions as France, the second in line. Yet, in the UK, it's also quite popular.² The Paypers even see direct debit embarking on a winning route, as subscription-based media services become popular in more and more households. They cite Bacs, claiming that direct debit will reach a transaction number of 4.6 billion by 2026.³

Example Providers

Regional schemes for direct debit exist all around the globe such as:

- UK Direct Debit scheme in the UK
- SEPA Direct Debit in Europe
- Automated Clearing House ACH in the USA

Typical Direct Debit Service Providers are, e.g.:

- SmartDebit in UK
- Dharma in the US
- Pysmart in Australia



PURCHASE-ON-ACCOUNT

Also called: Invoice Payments

For this Payment Method, the service provider sends out the goods along with an invoice. This invoice has to be settled by a specific deadline. Merchants and service providers can also add specific terms of payment.

Invoices can be added to the goods in paper form. But today most e-commerce platforms rely on e-invoicing, sending invoices out via email (especially in the business context). E-invoices may also contain a Request-to-Pay link, which reduces friction for customers and makes it easier for them to pay right away.

How Does It Work?

Purchase-on-Account payments have to adhere to the specifications detailed in the invoice. Those include the due date, the unique invoice number, the payment details and the terms of credit. Everything else depends on the payment method a customer chooses from there to pay for the invoice. Typically, this is a bank transfer (see above).

Special Case: Aggregated Invoices

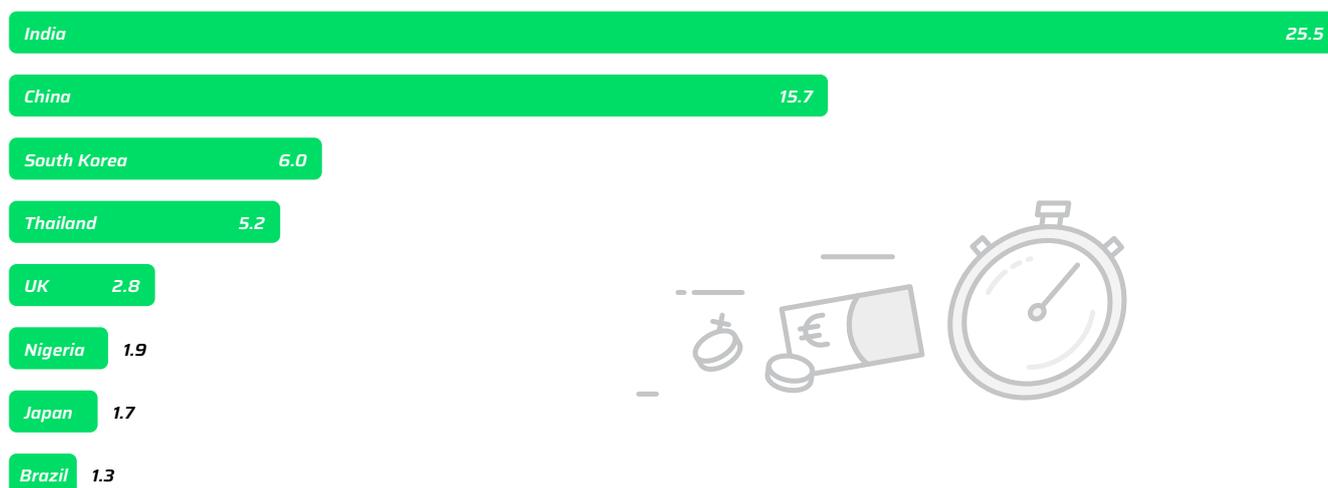
Some platforms allow their customers to accumulate purchases. Once a certain payment amount is surpassed or a period of time is over, the invoice is given out, containing all the purchased items. The customer then pays them in bulk. This helps e-commerce companies save transaction fees and processing costs.

Where Is It Widely Used?

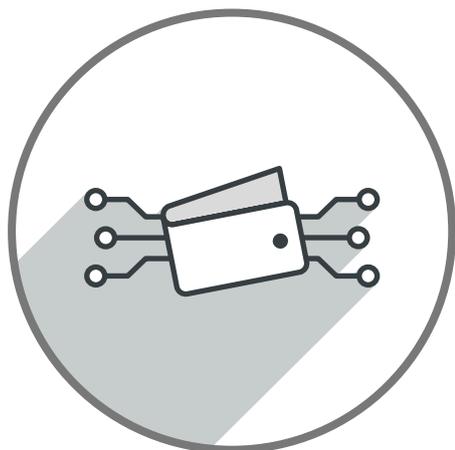
When researching the popularity of purchase-on-account transactions in well-banked societies, one country comes up on top: Germany. It still is the most popular payment method in e-commerce there, amounting to more than 30% of all such purchases.⁴ In fact, in the whole DACH region, including Austria and Switzerland, invoice payments are a preferred payment method. In Asia, this payment method is almost unheard-of.

Real-Time Payment Value Around the World

Transaction value of real-time payments* in 2020, by country (in billion US\$)



*near immediate movement of funds between bank accounts (Source: Statista, 2021)



ELECTRONIC WALLETS

Also called: Digital Wallets, E-Wallets

For this payment method, the customer pays using a balance of e-money (that's digital units of monetary value). Those are stored in a specific software application: an electronic wallet or e-wallet. E-wallets storing fiat money are the most common electronic wallet use case today, but there are also wallets processing cryptocurrencies or virtual currencies for payment. E-wallets are very popular among customers due to their ease of use and high acceptance among service providers.

How Does It Work?

- The payer tops up their digital wallet balance, following the procedure detailed by the wallet provider – alternatively, the payer gives the wallet provider the permission to collect the purchase amount from their bank account or credit card.
- Upon checkout, they choose the wallet as a payment method.
- The transaction is instantly authorized.
- The amount is transferred to the payee's e-wallet from the payer's e-wallet.

Special Case: Virtual Currencies

Some platforms allow or even require customers to make purchases using virtual currencies. Typically an exchange rate is applied upon top-up: The customer buys a certain amount of the currency and the price of it may change over time. Besides, some companies let customers gather virtual currencies through other means, e.g. as part of a loyalty program.

Where Is It Widely Used?

E-Wallets are one of the fastest-growing payment methods. In fact, the biggest share of worldwide e-commerce transaction volume in 2021 has been processed with electronic wallets – 49% to be exact. Credit Cards, second in line, only processed less than half of that amount. The COVID-19 pandemic also had a role in customers adopting this payment method. By 2024, statistics by Juniper Research state, half of all online transactions would be processed via electronic wallets.⁵

Yet, as much as e-wallets are branching out, some are only active in their specific regions. International companies that want to access new markets have to juggle multiple digital wallets. Alternatively, they could apply for an e-money license and set up their own systems.

Example Providers:

- PayPal (USA)
- M-Pesa (Africa)
- N26 (Europe)
- Alipay (China)
- Mercado Pago (South America)



BUY NOW, PAY LATER

Also called: BNPL, Point-of-Sale Installment Loans

This payment method enables consumers to get products right away, but not pay for them right away. Instead, the order is sent out immediately, but the payment is collected only after a certain time has passed. Thus, BNPL boils down to short-term financing of goods. Only customers who pass risk assessments and have a high enough creditworthiness will be offered BNPL, typically.

What's more, some BNPL companies also allow customers to pay for their purchases in multiple installments - oftentimes with zero interest, when compared to typical bank loans.

How Does It Work?

- The payer chooses a BNPL option at a BNPL provider during checkout

- The BNPL provider notifies the payee that the BNPL transaction was successful.
- The payee sends out the goods or provides the services, respectively.
- The BNPL collects the money (in part or in full) from the payer after the predefined time period has passed, e.g. via direct debit, credit card or an e-wallet payment.

Where Is It Widely Used?

Buy Now, Pay Later is often attached to regular electronic wallet payments or offered by third-party companies such as Klarna and Afterpay. However, some banks started to develop their own solutions. And rightly so: the demand for Buy Now, Pay later does not wear off, fired up by the pandemic. Between 2020 and 2021, the number of BNPL users rose by 85 %, finally reaching around 360 million in 2022.⁶

Example Providers

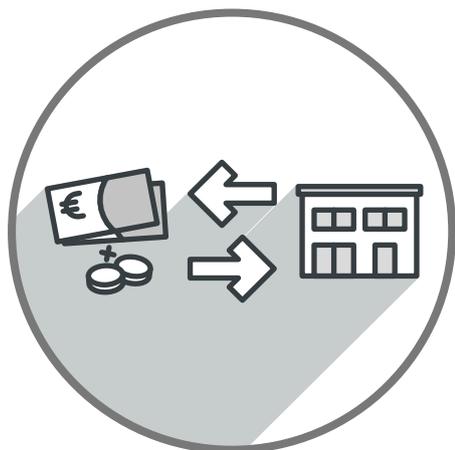
- Addi (Colombia)
- Afterpay (Australia)
- Klarna (Sweden)
- Paidy (Japan)
- Postpay (United Arab Emirates)



By 2027, around
900 BILLION
USERS

will use BNPL services. That's a growth of 157% from 2022.

Source: Juniper Research, 2022



CASH-ON-DELIVERY

Also called: CoD, Collect-on-Delivery

Just as with BNPL, cash-on-delivery allows consumers to pay for their goods not directly when ordering them. Instead, they pay the order in cash to the deliverer, in exchange for the package. If the consumer cannot pay or does not accept the package, it goes back to the retailer. Of course, cash is not the only payment method that can be used to settle the bill. Checks, debit cards, or credit cards can also be used to pay. Delivery firms often charge extra fees for CoD, though.

How Does It Work?

- The payer chooses cash-on-delivery at the checkout.
- The payee accepts the order and delivers the goods.
- The payer is notified when the goods will arrive.
- Upon arrival, the order is paid using cash or a payment method of choice, processed by a mobile point-of-sale brought by the deliverer.

Where Is It Widely Used?

Cash-on-delivery is one of the dominant ways to pay in many countries around the world. In the Middle East and parts of Africa and Asia, it tops the ranking of e-commerce payment methods – in India’s rural areas up to 90% of online orders are paid in cash, for example.⁷ In Europe, cash payments are still alive and well, too. But cash-on-delivery usage specifically concentrates mostly in the Eastern parts of the region. In Western Europe, CoD clutched at a 4% market share,⁸ while in Eastern Europe, it reached 36% in 2017.⁹

Example Providers

- BlueDart (India)
- Aramex (United Arab Emirates)
- FedEx (USA)
- ZebraPay (Romania)



VOUCHER PAYMENTS

Also called: Cash Vouchers, Coupon Payments

Not unlike cash-on-delivery, the voucher payment method presents a way to order online but pay via cash at a designated acceptance point (point-of-sale). In countries where this payment method is popular, those acceptance points are typically easily accessible: Banks, ATMs, supermarkets and convenience stores may accept them. The transaction code on the voucher expires, so customers are encouraged to pay in time to receive their purchases.

How Does It Work?

- The payer enters their data upon checkout and receives a voucher (a paying-in slip) with a unique reference number.
- The payer takes the voucher to a physical point-of-sale that accepts the voucher.
- The payer pays their order in cash there.
- The point-of-sale notifies the payee that the order has been paid.
- The order is shipped.

Where Is It Widely Used?

Voucher payments have become transitioning technologies, bridging analog and digital payments. In many countries, in which people don't have bank accounts, this payment method is spread far and wide. Latin America can be viewed as the heartland of voucher payments: Providers like OXXO in Mexico and Baloto in Colombia are a staple of the local payment market. 82% of customers named Boleto Bancario to be their preferred payment method for recurring purchases, for instance.¹⁰ Aside from Latin America, voucher payments (or variations thereof) happen in countries all around the globe, too - from the Middle East to Japan's so-called Konbini payments.

Example Providers

- Boleto Bancario (Brazil)
- Fawry (Egypt)
- Sencillito (Chile)
- OXXO (Mexico)



ADDITIONAL ALTERNATIVE PAYMENT METHODS

It would be impossible to list all the local ways of payment here that are currently in use: Estimations speak of more than 200 distinct alternative payment methods worldwide.¹¹ However, there are a few methods left, we want to mention, at least.

Prepaid Cards/Gift cards

There are many variations of payment methods, where customers pay upfront to obtain a balance to be spent in an online shop. Prepaid cards/gift cards present themselves as one of the more widespread options here. Those cards can be purchased online or offline and contain a fixed value that can be spent in online shops for single purchases or subscriptions.

The standard use case is branded single-shop cards such as those by Nintendo, Starbucks or Spotify. Yet, platform-agnostic prepaid payment cards also exist such as Paysafecard or Mint. However, the overall market penetration of prepaid cards only lies around 1% globally, according to Statista.¹²

Direct Carrier Billing

With this payment method customers pay their purchase by charging the payment to the bill of their telecom provider. This mode of payment goes back to the time when customers purchased ringtones and wallpaper with their first multimedia-enabled cell phones.

Today, many are quick to deem this payment method obsolete. Yet, many mobile content providers still rely on it. Actually, the market is likely to grow in the coming years. A forecast by Juniper Research predicts that consumer spending with this payment method will rise to \$90 billion worldwide by the end of 2024.¹³

Cryptocurrency Payments

Crypto(currency) Payments present a digital payment method, similar to the e-wallet payments case above. The authorization of a transaction occurs in a decentralized way, though. Cryptocurrencies use the blockchain, a distributed ledger technology, to record all money transfers between participants. That means there is no central hub verifying the transaction, but an anonymous peer-to-peer network validating a bundle of crypto transactions en bloc.

In the past, this made cryptocurrency transactions take longer than regular e-wallet transactions. But the development of new validation protocols has led to decreasing processing time. Also, there are crypto payment service providers, who hide the complexity of crypto transactions from customers and merchants. Examples include BitPay, Coinbase Commerce and Coingate.

MARKET OVERVIEW

Local payment methods form welcome alternatives to the vast global credit card schemes like Visa, Mastercard or UnionPay. But their economic impact and popularity with customers vary across different regions. Here's how the world pays.

THE STATE OF THE INTERNATIONAL PAYMENT MARKET

Outlining the future of the payment industry has become a bit tricky in recent years. The COVID-19 pandemic has limited direct personal interactions and pressed companies to adopt contactless payment methods. This increased acceptance of contactless, non-cash payment methods among customers - and affected the online sphere as well, with digital payment methods seeing more widespread use.

In addition, the e-commerce market itself expanded by a quarter from 2019 - 2020 and still keeps on growing, cementing the demand for digital payment methods.¹⁴

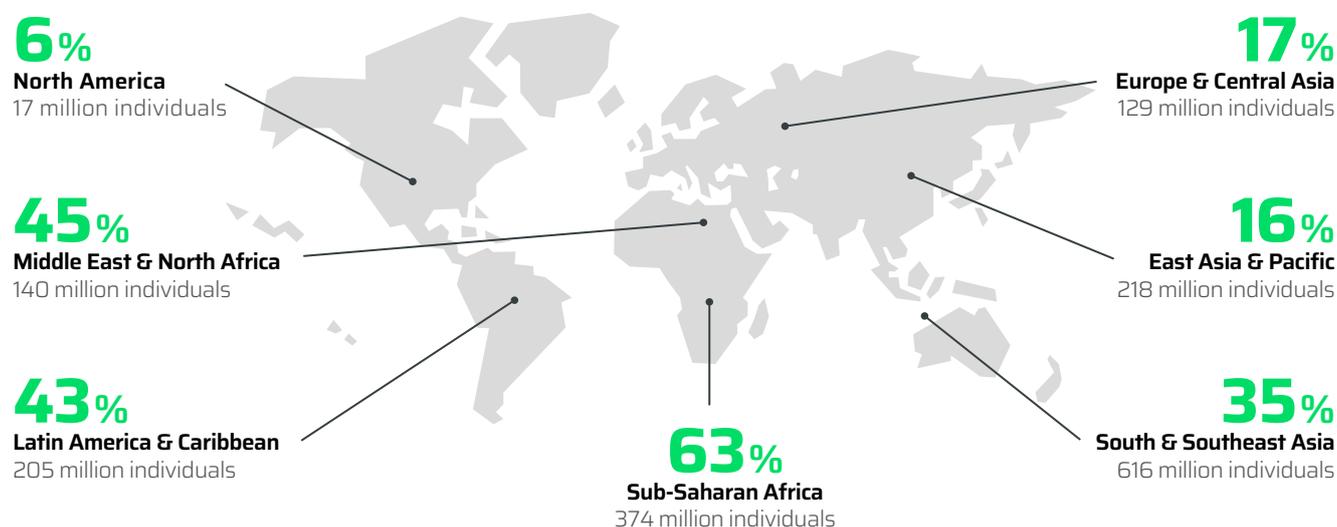
Over the last year, the victory lap of digital payments slowed down a little. Fears of recession, continued inflation and deglobalization loom over the industry.

In their recent projections, the International Monetary Fund lowered expectations from a 6.0% global economic growth rate for 2022 to 2.7% for 2023.¹⁵

Yet, despite the global economy cooling down, offline payments will give up market share to their digital counterparts in the coming years. As Capgemini reports, so-called new payment methods, including instant payments, as well as mobile and digital wallets, will handle 28% of the total payment transaction volume by 2026 - an increase of 11% when compared to 2021.¹⁶

In emerging markets such as Africa and Asia, the non-cash payment market grows more rapidly than in the West. In 2022, McKinsey quantified the CAGR of such payment methods to +15% until 2026.¹⁷

How the World Pays - Percentage of Adults Without a Bank Account



(Source: Oxford Economics, 2019)

REGIONAL PROFILES: THE WORLD IN PAYMENTS

When surveying the payment culture, it matters how much we zoom in or out. We might discover strong trends and tendencies in a specific region, just to see that two adjacent countries in the same region may have completely different payment cultures. Or that two nations located on two opposite continents may favor the same payment methods.

Plus: Whether a country's population prefers one payment method or another isn't determined by trends alone. Different countries are subject to a variety of conditions limiting which payment methods will be able to establish themselves at all, from financial regulations to the state of the digital and banking infrastructure.

The following pages will go with a rather total view of the payment preferences around the globe. It will present the payment preferences of certain economic areas, with a more detailed look at a few outliers or economically important singular nations.

We will look into payments for the following regions, in order of appearance:

- Western and Eastern Europe
- Africa and the Middle-East
- Latin America
- North America
- Asia and the Pacific



WESTERN AND EASTERN EUROPE

The one slogan that best describes payments in Europe is Unified in Diversity. Out of 27 EU member states, 20 use the Euro currently – but this consolidation in currency is not reflected in the payment methods chosen by the population of those member states. In fact, the process to put EU payment and banking on common ground is still going on. SEPA and SCT Inst initiatives only act as first steps here.

If we were to take a universal statement about e-commerce payments in Europe, it would be this one: Cards still rule – especially Credit Cards. In J.P. Morgan’s “Global Payment Trends” of 2019, 11 out of 18 European countries examined show a preference for credit card payments.¹⁸ Following the numbers of PPRO, Visa and Mastercard would make up for around 68 % of those card transactions in Western and Central Europe¹⁹ and 75 % in Eastern Europe.²⁰

Still, digital transformation can be felt in Europe. Electronic wallet transactions already make up for around ¼ of all e-commerce transactions in Europe in 2022.^{21 22} In Italy, that ratio is ⅓ even, making it the top e-wallet spot in Europe²³ – even before e-wallet-savvy societies like Sweden or the UK. Buy Now, Pay Later solutions also gain a foothold in Europe:

Sweden, Germany and Norway even rank highest in BNPL market share compared globally.²⁴

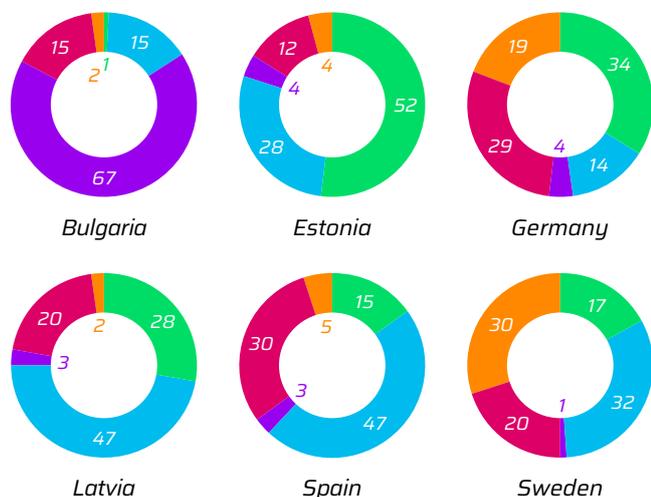
Several cash-loving countries stick in the EU’s Centre and Eastern flank, from Germany to Bulgaria. In Eastern Europe, cash-on-delivery solutions are popular. In Bulgaria²⁵ and Romania,²⁶ cash-based solutions dominate all other payment methods. Greece and the Czech Republic have recently moved away from cash though, with a decrease of 15 % and 12 % during the pandemic.²⁷

Due to the invasion by Russia, Ukraine faces the biggest economic challenges in Europe, however. The overall number of e-commerce transactions decreased by 73 % after the beginning of the war in February of 2022.²⁸

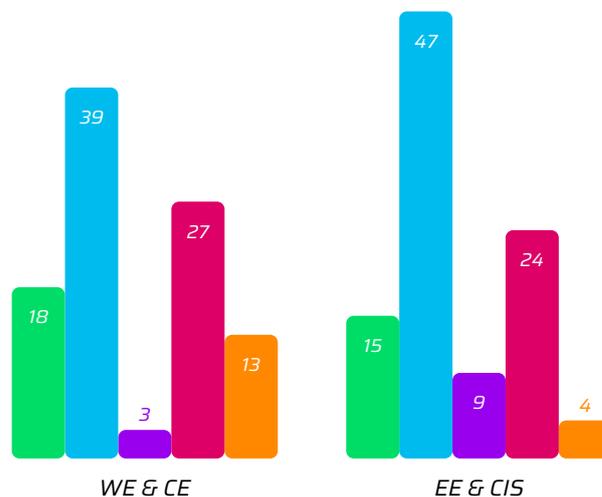
Example Payment Providers

- Giropay (Germany)
- Adyen (Netherlands)
- Ingenico (France)
- Klarna (Sweden)
- Multibanco (Portugal)
- PayPo (Poland)
- Skrill (UK)

Example National Payment Method Distributions in %



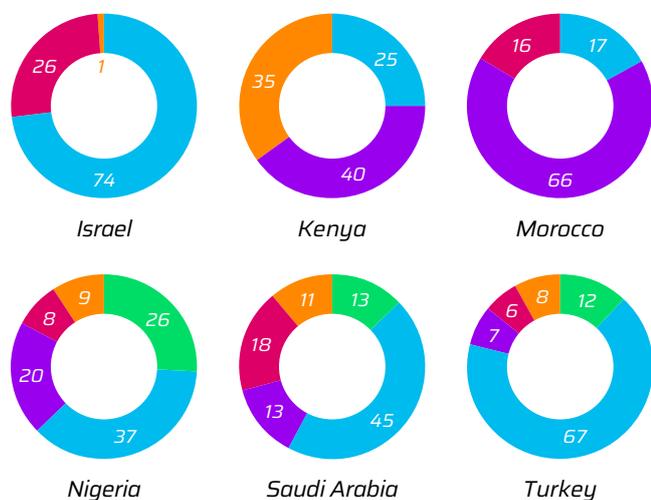
Payment Method Distribution of Western and Eastern Europe in %



● Bank Transfers ● Card-Based-Payments ● Cash-Based-Payments ● Digital Wallets ● Others

(Sources: “Western and Central Europe”, ppro, 2022; “Eastern Europe and the CIS”, ppro, 2022)

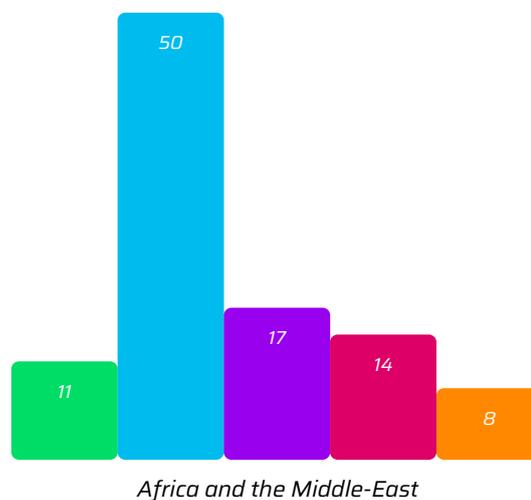
Example National Payment Method Distributions in %



● Bank Transfers ● Card-Based-Payments ● Cash-Based-Payments ● Digital Wallets ● Others

(Source: "Middle East and Africa", ppro, 2022)

Payment Method Distribution of Africa and the Middle-East in %



AFRICA AND THE MIDDLE-EAST

When it comes to payment, Africa is a two-faced continent. Especially in nations with less formalized economies, cash dominates as a payment method. That’s mostly because online shopping in these areas is still rare – overall, Africa and the Middle East just have 74 % internet penetration, 10 % less when compared to the rest of the world.²⁹ But even in nations with a well-to-do e-commerce market, cash-based payments, like cash-on-delivery, remain a considerable factor. In Kenya, they make up 40 % of payments,³⁰ as the biggest chunk in the country’s payment profile. In Nigeria, it’s at least 20 %.³¹

Yet, on the flip side, the continent is ripe with opportunities for online shopping and payment companies. Sub-Saharan African communities rank among the world’s most eager adopters of mobile devices. Also, e-wallets and bank account-based payments will become go-to solutions for African customers as the financial infrastructure (especially regarding real-time payments) improves. In 2022, McKinsey estimated a boost of 15 % in the CAGR of non-cash payments until 2026, with fast growth happening African nations like Morocco and Nigeria.³²

In the Middle East, the conditions for a big leap into a digital payment landscape are also in place. Many countries in the region see a new middle class emerge, aware of international trends. Also, the average population is very young and the economic situation is promising: ideal conditions for financial disruption.

Another distinctive feature of the Islamic world is its relationship with credit cards. There is an ongoing debate among scholars there about whether they conform to the religious rules of Islam. The reason: charging or paying out interest is prohibited under Islamic law. But different countries arrive at different interpretations: In Morocco, Visa and Mastercard account for more than 80 % of credit card payments.³³ In Saudi Arabia, on the other hand, local credit card schemes dominate, offering Sharia-compliant credit cards.³⁴

Example Payment Providers

- Jumia Pay (Nigeria)
- Isracard (Israel)
- M-Pesa (Kenya)
- Snapscan (South Africa)
- GPay (Turkey)
- e-dirham (United Arab Emirates)

LATIN AMERICA

In Latin America, the payment market shows clear tendencies towards specific payment methods. Almost 70 % of the continent's population is unbanked or underbanked,³⁵ so cash is still a big factor. However, that has begun to change recently, with fintech solutions and better online banking platforms catching on.

In Worldpay's Global Payments Report, credit cards top the charts and statistics for LatAm, accounting for over 39 % of the transaction value.³⁶ Local schemes play a larger role here than in many other parts of the world. However, credit cards are predicted to lose a few percentage points to digital wallets by 2025.

Cash remains a darling to some Latin American customers, though. Worldpay estimates that it has a market share of 4 %, ³⁷ while PPRO sees it as high as 10 %.³⁸

In many countries, cash-based voucher payments are very popular. This also stems from a high rate of unbanked individuals: in Latin America, it is up to 40 %.³⁹ What sounds like bad news for e-commerce, turns out to be a point of attack for fintech companies. At least 69 % of Latin Americans possess

70.9 %

YEAR-OVER-YEAR E-COMMERCE GROWTH RATE OF PERU, ONE OF THE HIGHEST IN THE WORLD.

(Source: "Latin America", ppro, 2022)

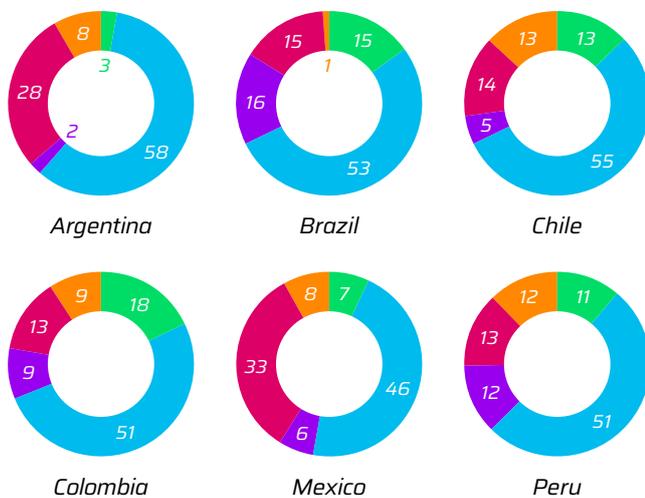
mobile devices.⁴⁰ Thus, mobile payment, provided by digital neobanks or payment companies, can make financial services accessible to a huge share of the population.

Mexico is ahead of the curve, in terms of the digitization of payments: There, digital wallets already account for one-third of e-commerce transactions.

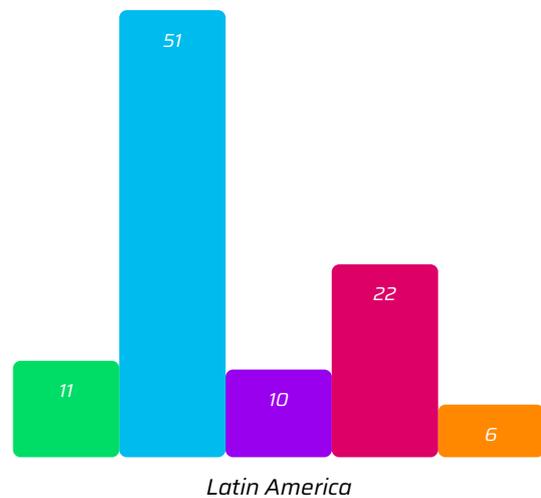
Example Payment Providers

- OXXO (Mexico)
- Mercado Pago (Brazil)
- Safety Pay (Peru)
- Rapipago (Argentina)

Example National Payment Method Distributions in %



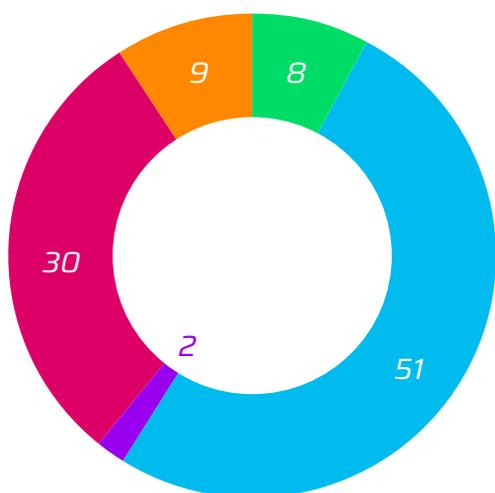
Payment Method Distribution of Latin America in %



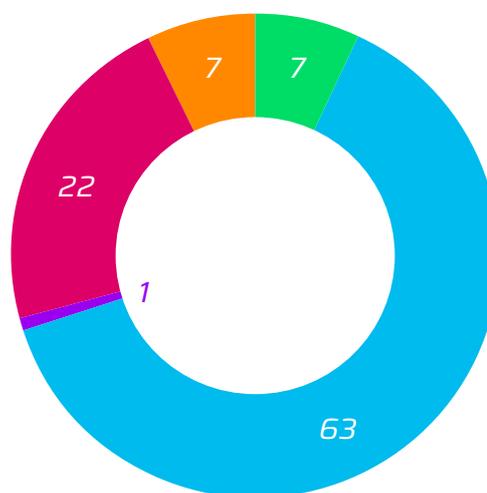
● Bank Transfers ● Card-Based-Payments ● Cash-Based-Payments ● Digital Wallets ● Others

(Source: "Latin America", ppro, 2022)

Payment Method Distribution in USA in %



Payment Method Distribution of Canada in %



● Bank Transfers
 ● Card-Based-Payments
 ● Cash-Based-Payments
 ● Digital Wallets
 ● Others
 (Source: "North America", ppro, 2022)

NORTH AMERICA

North America harbors the lowest number of unbanked people in the world - in Canada banking account penetration among adults lies at an impressive 100%.⁴¹ In e-commerce, cards and wallets are preferred ways of payment. In fact, Canadians have an even greater affinity to credit cards than the USA, which is considered to be the home of credit cards. At least the States are the home of the two biggest global credit card schemes: Visa and Mastercard. But that is only a current snapshot. According to PPRO credit cards are being used for over 50% of online shopping payments there.⁴² Worldpay dares to predict that digital wallets will process at least 1/3 of all online transactions by 2025, with credit cards falling behind to 28%.⁴³

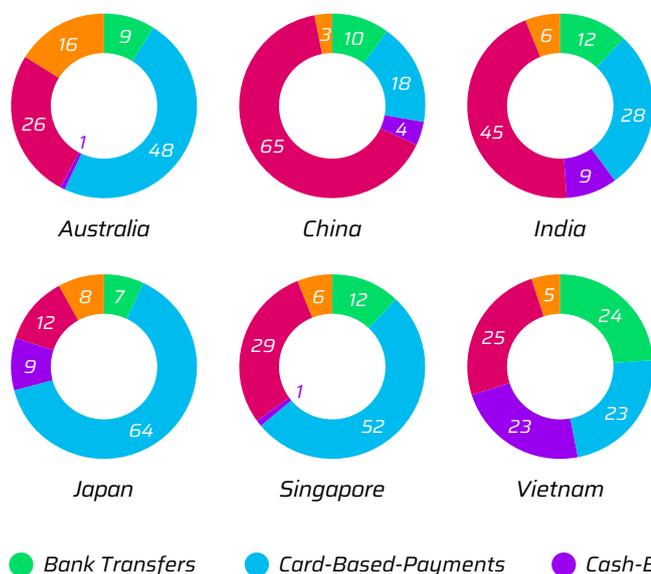
In all of this, we must also consider the role the USA plays: The US market still acts as the biggest incubator for payment innovation. The lion's share of the highest-rated fintech companies is from the United States. The same is true for most globally active payment service providers and credit card schemes.

Before the rise of China as a tech challenger - especially as a fintech challenger - the USA have been the unrivaled forerunner in payment innovation. In many fields, they still are: In Forbes' 2022 Fintech 50 List, all Payment and Personal Finance companies are from the US with just one outlier - from Canada.

Example Payment Providers

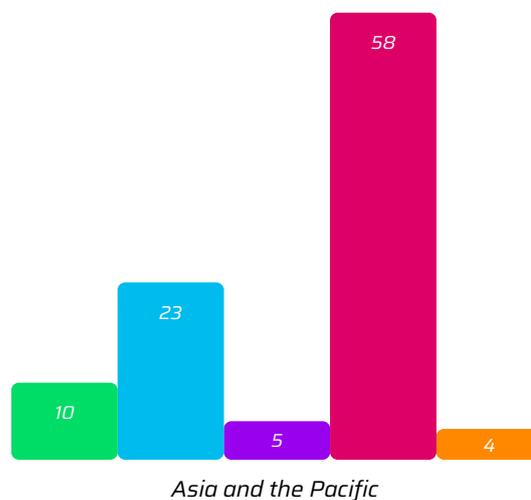
- PayPal (US)
- Braintree (US)
- Stripe (US)
- Apple Pay (US)
- Interac (Canada)
- FuturePay (Canada)

Example National Payment Method Distributions in %



(Source: "Asia Pacific", ppro, 2022)

Payment Method Distribution of Asia and the Pacific in %



ASIA AND THE PACIFIC

Asia is where the kingdom of payments is ruled by digital wallets. PPRO speaks of 58% of online purchases being settled in this way,⁴⁴ Worldpay even sees over 68% of these transactions being processed by digital wallets.⁴⁵

Of course, China has not exactly a small share in these figures. Nowhere else in the world is as much paid by e-wallet as there - with Alipay and WeChat Pay as the flagships, which reach a market of over 1 billion users each.⁴⁶ In the credit card market, which is also not to be neglected, the situation in China differs from that everywhere else, too: 100% of transactions here fall to a single credit card provider UnionPay, a state-supervised union of Chinese Banks.⁴⁷

How does this compare to India? The first finding is that the annual growth rate in e-commerce is almost three times that of China. And the payment mix is also somewhat different. Digital wallets also dominate here with over 40%,⁴⁸ but US-style credit cards are also very popular. For Mastercard, however, things have been tight in recent years due to a compliance conflict with Indian financial regulators.

But this hurdle has now been overcome, and Mastercard has a market share of 28%.⁴⁹

While neighboring Asia geographically, Australia has much more in common with the Americas in terms of payment culture - and a lot of e-commerce transactions is coming and going in both directions. Credit and debit cards are the solid backbones of the Australian payment landscape, with Visa holding a market share of 49%.⁵⁰ The good old bank transfer is also still popular among Australians, too.

Japan and South Korea are joining this trend. Credit cards and prepaid payment cards see widespread use here. Other countries in Southeast Asia cannot easily be brought under a common slogan. Malaysians love their bank transfers (30%),⁵¹ Filipinos their wallets (31%),⁵² and Singaporeans their credit cards (52%).⁵³

Example Payment Providers

- Alipay (China)
- Afterpay (Australia)
- PayMe (Hongkong)
- RuPay (India)
- paidy (Japan)
- GrabPay (Vietnam, Singapore)

LOCAL PAYMENT INTEGRATION:

- Benefits and Challenges -

For many customers worldwide, alternative payment methods are important in their everyday lives. But companies wanting to integrate them into their e-commerce platforms will face more than a few hurdles. We present a few impulses and best practices on how to implement such a project.

BENEFITS OF INTEGRATING LOCAL PAYMENT METHODS

Foreign markets are important for your e-commerce business. Over the next 6 years, cross-border trade on online shopping platforms is expected to almost triple, at the very least.⁵⁴ If you run a good platform offering high-demand products, international expansion is just a matter of time.

And as varied as the payment landscape of different markets is, going with the major credit card schemes is not always the best option. There are a few factors to keep in mind when deciding whether or not to adopt local payment methods:

- The customer demographic you target
- The products and services you offer
- The importance of the foreign market
- The budget
- The overall business strategy

The list goes on. But if you were to ask us for an overall tendency of the risk vs. reward assessment of alternative payment method integration: Here are a few reasons why you absolutely would want to have them.

REASONS TO SUPPORT LOCAL PAYMENT METHODS ON YOUR E-COMMERCE PLATFORM

1. Local Payment Methods Make Up the Bulk of Payments Worldwide

For proof, have a look at the previous chapter. The numbers presented can be interpreted so that Local Payment Methods play second fiddle to the global credit card schemes of Visa and Mastercard.

But in absolute numbers, that's not the case. According to the Payment Methods Report 2022, citing the consultancy Edgar, Dunn & Company, 77% of all annual consumer payment transactions are handled by local payment methods worldwide.⁵⁵ Even in countries where credit card payments take up the biggest individual share, that's true. If you take all individual local payment methods taken together, they often dwarf credit cards.

77%
OF ALL GLOBAL TRANSACTIONS ARE HANDLED VIA LOCAL PAYMENT METHODS.

(Source: The Paypers, 2022)

2. Local Payment Methods Grant Access to New Customer Demographics

Offering certain local payment methods can be the only way to appeal to certain demographics.

Take countries with a large unbanked population, for example. The people there have to rely on alternative payment methods - many don't have cards at all. If your e-commerce platform offers products that are interesting for this demographic, you need to add those APMs to your payment mix.

What's more, if you realize that your platform's user numbers stagnate, it might be due to a new payment trend that you haven't yet addressed.

42 %

OF CUSTOMERS ABANDON CHECKOUT, WHEN THEIR PREFERRED PAYMENT METHOD IS NOT OFFERED

(Source: ppro, 2020)

3. Local Payment Methods Boost Conversion and Trust

When you build up a shopping platform on a new market, you translate the UI into the local language. This enables customers to understand the platform and also generates the feeling that the platform is “at home” in that country.

The same applies to payment methods. Offering local payment favorites and currencies will convey the feeling that your business has completely arrived in the new market. Failing to offer local favorites has a measurable psychological effect on your customers. In the US, for example, 42 % of customers stop a purchase, if they may not pay with their preferred local payment method.⁵⁶

Thus, a well-rounded payment mix can counter cart abandonment and increase conversion rates with local demographics.

4. Local Payment Methods Help You Avoid Payment Errors

Payments fail. It happens. And when it happens, it can turn into a major loss of revenue for e-commerce platforms. A study by Zuora shows that 20 % to 40 % of customers leave a platform when payment failure happens.⁵⁷

Payment Orchestration with smart routing and failover logic is a way to prevent that. However, to redirect a customer to another payment service provider or payment method, you have to offer a broad array of them. Integration with many payment service providers for redundancy and providing as many local payment methods as possible will give the system the option to choose the best-fitting and most stable payment route for any given transaction.

5. Local Payment Method Orchestration Saves Money

Let's be frank: Local payment method integration can be quite costly. Every method you include will require initial development effort. Down the road, you also have to pay for maintenance and administration.

Of course, increased revenue through better customer conversion will offset this. That's even more true if you have a well-oiled payment orchestration system in place. With the least cost/least risk routing approach you can forward your payments to the provider with the lowest fees and the payment method with the lowest risk of fraud or failure after the purchase. Ultimately, you will offset the costs of development and integration with smooth, dependable payment processing.

CHALLENGES OF INTEGRATING LOCAL PAYMENT METHODS

All in all, we can state that any company that wants to gain a foothold in a new market should offer local payment methods to some degree. Yet, alternative payment method integration comes with challenges that might hinder you from embracing them wholeheartedly. Here are the major ones:

1. PAYMENT MARKET DOMAIN KNOWLEDGE

So, you want to establish your platform in a new local market? Then identify: Where are the “fan blocks”, and what payment trends do they follow? You must know which local payment methods you have to support right at launch and which you want to add later. That means you have to know the local payment providers and their terms of business as well as customer preferences.

To gain those insights, your company might have to rely on business and technical consultancy companies. It’s an additional cost factor to keep in mind. And not just for the launch phase: As you scale your business you need to keep track of payment developments, too, and divert resources to analyze markets.

US\$41 BILLION

WAS LOST DUE TO FRAUD IN E-COMMERCE DURING 2021

(Source: Juniper Research, 2023)

2. REGULATORY HURDLES

Every payment market has its own regulations - on top of the international standards that already apply. Your company must comply with local KYC and AML requirements and ascertain legal security for all operations.

Licenses are also an important factor: If you want to embed local payment methods into your own digital wallet system, that can store customers’ money, you will have to acquire an e-money license, for instance - or even a banking license, if lending ranks among your services and you want to work with interest rates.

Also, compliance with data protection rules is a factor when conceiving your payment architecture. In certain countries, rules of data storage location apply, for example. They demand that all personal user data must be stored and processed within the boundaries of the nation in question. The effort to comply with local data protection policies might be high for businesses.

3. FRAUD PROTECTION

As multifaceted as the various payment methods of this world are, so are the ways how their vulnerabilities can be exploited for criminal activities. So-called bad actors work tirelessly to outwit their security mechanisms.

When expanding into a new market, you may discover that the local payment methods have specific vulnerabilities to account for when you are setting up your payment software. Also, the local financial authorities will make specifications on how to protect customers and how to react in case fraud occurs.

Most Payment Service Providers come with their own risk monitoring and fraud prevention tools. Plus, there are also PSP-agnostic third-party solutions as well. E-commerce companies often need to integrate those into their payment systems.

4. PAYMENT METHOD ORCHESTRATION

Integrating a wide range of diverse payment methods means dealing with local payment service providers (PSPs). As a company, you can implement those PSPs one by one. But not only does that leave the PSP company with more control over your payment flow and the user experience. It also can lead to a mess of singular integration points which are hard to maintain.

Let's say your e-commerce platform is active in multiple markets and you offer multiple payment methods in each market. Those methods are all managed by local payment service providers. And each one comes with different integration specifications and challenges. That's where it gets complicated. You need to:

- Monitor the performance of all those different integrations
- Run, maintain and adapt all those different integrations
- Have a mechanism to handle payment failures

And that's not all. For instance, the number of integrations will likely grow as your business expands. New countries mean more integration points, which means more of the above.

Setting up a unified payment orchestration layer for the integration of all PSPs helps you solve those problems. It makes integration of new payment methods faster and maintenance and operations cheaper and easier. We will tell you how you can set it up using our payment software foundation further down.

LOCAL PAYMENT INTEGRATION:

- Building a Custom Layer -

Integrating local payment methods by the dozen is easier with a custom payment orchestration system with a unified integration layer. Don't let the "custom" part discourage you.

BUILDING LOCAL PAYMENT INTEGRATION LAYERS

Building your own payment integration system is nothing to take lightly. Starting such a project from scratch requires time, money and a software development team with payment expertise.

The thing is: You don't have to build your payment orchestration layer all from scratch. There are ready-to-use software solutions allowing you to easily integrate many local payment service providers and payment methods within a short time to market. Let's take one such solution, Finergizer, and have a closer look.

INITIAL STEPS AND PLANNING

Software platforms such as Finergizer enable you to build payment systems without engineering the whole product from the ground up. They act as the basis for a unified integration layer for alternative payment methods.

In the case of Finergizer, companies don't are not left alone here, too, as the platform's payment experts help to set up the proper payment system to best serve your e-commerce platform.

Identifying Payment Options and Providers

This step should be taken before the initial payment system setup: analyzing the market you want to capture. Your company has to get a good overview of the following aspects of a local payment culture:

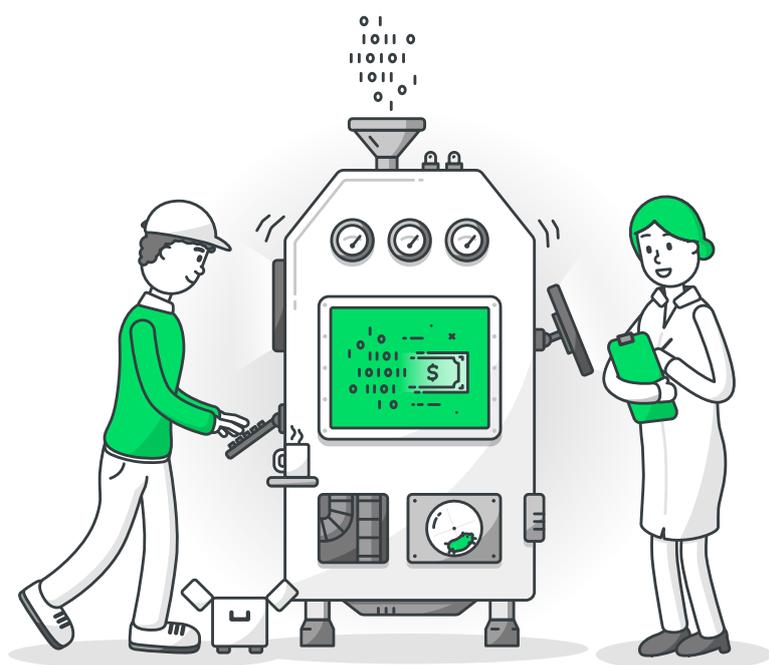
- What payment regulations do you have to adhere to in the region?
- What are the most popular payment methods for your customer base there?
- What local Payment Service Providers can handle those payment methods?

Consulting companies or specialized technical experts can assist you to answer such questions.

But chances are, that you already have this part of your business strategy fully elaborated, once you seek the best technical implementation. Perhaps, you also have made initial contact with the Payment Service Providers in question to inquire about their terms of service.

When setting the priorities, it makes sense to implement more broadly accepted payment methods first and move into niche payment methods further down the road.

Finergizer comes with a set of popular pre-integrated payment service providers and payment methods (Adyen, Stripe, PayPal).



Checking API Documentation and Support

Companies should select PSPs with clean, well-structured and modern APIs with good technical documentation and a reliable support team. If you run an international business, English documentation is a must-have. In the best case, a PSP offers its own Software Development Kits (SDKs) for different programming languages.

Companies should also keep in mind: Extensive Payment Service Providers, that process many payment methods, have more complex APIs than small-scale, specialized PSPs. That's not to say that one surpasses the other, though: A PSP that covers a variety of local payment methods within just one API may take less effort to integrate, than a multitude of single-payment-method PSPs. Thus, it might be easier to use them in an integration layer but may make e-commerce platforms more dependent on a single provider.

Time Scale

No matter if launching a new e-commerce product or adding new local payment methods to a running platform - it all needs to align with your overall product roadmap.

So how long does it take to integrate a new local payment method?

It depends. Relying on a unified payment orchestration system already saves you effort. However, the exact time frame for incorporating a new local payment method can vary. As a rule of thumb, it typically takes between 2 and 6 weeks to integrate a new PSP with a single payment method into our Finergizer platform, depending on factors such as:

- The complexity of the payment method APIs and flows
- Quality of the PSP's documentation and support
- Presence of a test system on the PSP side to test your integration

- The effort to ensure regulatory compliance
- Optional inclusion of additional features related to the PSP (payment analytics, loyalty programs etc.)
- et al.

Finergizer Payments abstracts PSP integration and payment method handling to make the implementation of a new payment option easy and fast. Every connector to a new payment service provider or acquirer is a dedicated micro-service that can be implemented in any programming language of your choice, giving you the greatest flexibility.

PAYMENT ORCHESTRATION: KEY TO LOCAL PAYMENTS INTEGRATION

The most impactful characteristic of a custom payment system for international companies to utilize is its payment orchestration capabilities. Payment orchestration refers to the process of integrating and handling different payment service providers, acquirers and banks in a single orchestration layer. This layer offers a unified API to its consumers. It combines all the different flows and APIs of different payment methods and providers.

Payment Orchestration comes with a number of benefits for online retailers:



Easier Payment Method Integration
Quicker Expansion + Better Customer Experience

The payment integration layer hides the complexity of a payment process from consumers while simplifying it for platform providers. It gives the technical team a framework for easy integration of new local payment methods and thus allows companies to enable new payment methods more rapidly and coherently. This expands customers' payment options, resulting in a better checkout experience - and improved retention.



Consolidated Reconciliation

*Better Maintainability +
Lower Operational Cost*

A payment orchestration layer not only hides the complexity of payment method integration on the API level but also simplifies reconciliation. In payment reconciliation, internal financial records are compared to external bank and payment service provider statements to make sure everything adds up. Payment orchestration layers enable a unified view of all payment data. This makes the maintenance of the payment system easier for the tech team, clearly understandable for the product and payment managers and thus reduces operational costs.



Payment Routing

*Higher Conversion Rate +
Lower Cost*

Payment orchestration can be used to set up smart payment routing. This means that transactions are passed on to a specific Payment Service Provider according to pre-set rules and parameters. Those parameters could aim at providers with high success rates, low transaction costs and fast processing or it can limit access to specific payment methods depending on the customer's verification and risk level. This reduces costs caused by eventual payment failures or high transaction costs and improves customers' trust in the platform.

ADDITIONAL FEATURES

Besides a custom payment orchestration layer, additional features may be needed in your system when handling local payment methods.

Token Vault

*Secure processing of credit card data +
Automatic failover*

When processing credit card payments, payment systems have to handle sensitive card data in a way that's compliant with PCI DSS requirements. PCI DSS is a security standard maintained by major credit card schemes. For instance, the data in need for protection is not allowed to be stored as clear text data in a payment system. Thus, the actual credit card details, such as the card number, are stored encrypted and associated with a unique identifier called a token. This token can then be used for processing credit card payments. The process of replacing actual credit card data with a token is called tokenization. Payment platforms can use the tokenization offered by PSPs. However, employing custom tokenization is a more flexible way of doing it as it allows businesses to use credit card tokens across PSPs, e.g. to enable an automatic failover to a different PSP in case the first PSP suffers from an outage.

Scalability

Stability and reliability during prime time

For fast-growth companies it's crucial to have a payment system which can scale together with the business. System outages and payment failures due to technical reasons can lead to immense revenue losses, especially during peak times like CyberWeek, BlackFriday or any other seasonal sales.

CONCLUSION

Local payment methods are big players in global e-commerce. Even customers in countries that share a common border might have very distinct payment preferences. Economic developments – global as well as regional – and technological innovation are flashing through the payment industry, changing it for good every few decades or years. To stay ahead of the game, your business must ensure that factors are in place.

Market-Driven Strategy

You need to get an intricate understanding of the markets you want to be present in. Consulting companies and technical experts will help you get a grasp on those markets.

At trimplement we work together with high-end consulting firms. They can help you devise a business strategy backed by data and experience with international clients.

Reliable, High-Performing Software

Once you get from knowing to doing, you don't need to make things more complicated than they have to be. Setting up unique integrations for every new PSP and alternate payment method will turn into a chore quickly – and into a potential source of errors and an unmaintainable payment landscape. Thus, accepting the initial effort and building a payment solution with an all-purpose payment orchestration layer allows your company to scale more flexibly and advance more rapidly into new markets.

At trimplement we are specialized in software platforms that allow you to remain in control of the direction of your product, without building the full system from scratch. With the help of our consulting partners, we are able to see your project through, end-to-end.



YOUR SOLUTION FOR FAST PAYMENT METHOD INTEGRATION

Finergizer is a software platform that enables you to build the payment solution that fits your unique business needs. It comes with all the core features for payment transaction handling and integrations for popular PSPs and payment methods out of the box. Yet, it also allows for the quick implementation of new local payment methods, all embedded via a unified integration layer.

With Finergizer you get:

- A software platform that can be used in international payment markets, scalable by design
- A unified payment orchestration layer with flexible configuration for your payment processing
- A secure vault for the PCI DSS compliance-ready storage of the sensitive credit card data
- A Mission Control UI which gives you full insights into your payments
- End-to-end support by Software Engineers and Solution Architects, who have been building payment products for large international enterprises for over a decade
- Project management and technical payment consultation - we help you to choose the PSPs that make your local payment panoply shine
- And much more ...

Contact us and book a free Finergizer demo:

[**info@trplement.com**](mailto:info@trplement.com)

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2024-01-31