Ecommerce Payment Methods Report 2016

"The Report, an essential tool for payments and security professionals, offers insight on how alternative payment methods function and how to optimize payment types per industry and country."

Danielle Nagao | CEO | MRC

"A must-read educational overview of the world of payments, highlighting key aspects of the rapidly changing ecosystem and implications for digital commerce."

Shikko Nijland | Managing Partner | Innopay
Table of contents

5 Introduction
8 Management Summary

12 Trends & Developments in Ecommerce Payment Methods
13 1. What drives innovation in ecommerce payments – why is this market so dynamic?
13 1.1 Introduction
13 1.2 Changing consumer behaviour and expectations
14 1.3 Ecommerce developments
16 1.4 Technology-driven innovation
17 1.5 Regulatory reforms and frameworks to clarify aspects in the ecommerce and online payment ecosystem

23 The Online Payment Methods Ecosystem Explained
24 2. Payment context, payment instruments and online payment methods
24 2.1 Understanding the payment context
28 2.2 Payment Instruments
32 2.3 Online Payment Methods
40 2.4 Looking forward
42 2.5 How to accept and integrate online payment methods?

46 Infographic Presentation of Payment Methods

48 Payment Methods
49 Cards
50 Exclusive Interview with Tarek Elhousseiny | General Manager for Visa North and Francophone Africa
52 Exclusive Interview with Chris KANGAS | Head of European Partner Development, Digital Payments & Labs, MasterCard
54 Online Banking e-Payments
54 Online Banking e-Payments: How Preference Shifts When Payment Methods Advance | Stefan Backlund, Head of Marketing, Trustly
57 How the Dutch Pay Online: Mainly with iDEAL! | Max Geerling, Executive Adviser, e-Payments, the Dutch Payments Association
60 E-wallets
60 Exclusive Interview with Jan-Willem Roest | General Manager, PayPal Benelux
63 Invoice
63 Make Bill Payments as Easy as Email and Get Paid Quicker | Peter Kwakernaak, CEO AccepEmail
66 SEPA Direct Debit
66 The Rise and Fall of Payment by Card | Jérôme Traisnel, CEO and co-founder SlimPay
69 Direct Carrier Billing

69 Carrier Billing Shapes the Digital Content Market | Margit Anglmaier, VP Corporate Communications, DIMOCO

72 APMs in Emerging Countries

72 The Key to Winning the Payments Battle in High Growth Markets | Arthur van Wijck Jurriaanse, COO, Pay U Global

75 Glossary

91 How to Integrate Payment Methods at Checkout

92 PPRO Payment Hub Connects PSPs and Online Businesses Globally | Ralf Ohlhausen, Business Development Director, PPRO

94 Raising the Conversion Rate with the Right Payment Methods Mix | Markus Rinderer, SVP – Product Line Manager, Merchant Payments Solution, ACI Worldwide

96 Marketplaces Develop Your Business - Internationalisation Is Key! | Christophe Bourbier, Chairman & Co-founder, Limonetik

98 Exclusive Interview with Dennis Van Allemeersch | Chief Operating Officer, Beate Uhse

100 Exclusive Interview with Ronaldo Mouchawar | CEO & Co-Founder, SOUQ.com

102 Getting Out of the Way: The Characteristics of Retail Payments in the Future | Mike Philpotts, Innovation Partner, Visa Europe Collab

104 Country Insights

105 France - The Evolution of the French Payments Landscape | Javier Santamaria, Chairman of the European Payments Council

107 Germany - The Ecommerce Life Cycle | Dr. Gerold Doplbauer, Retail Expert, GfK

109 UK - Payment Industry Evolution | Masha Cilliers, Digital Payments Consultant, IMRG

111 US - Overview: The Transition to EMV | Dr. Windsor Holden, Head of Forecasting & Consultancy, Juniper Research

113 India - Opportunities for Growth: Trends in Indian Ecommerce | Sudipta Jash, Head of Cross Border Sales, Pay U India

115 Russia - The Russian e-Payment Scene Today | Elena Oriova, Managing partner, Sun-consulting.ru
Introduction

The exponential growth of cross-border ecommerce has precipitated the rise of (alternative) payment methods. There is an endless number of payment methods to match all payment contexts (pay in advance, pay afterwards and payment and delivery are at the same time). Choosing the right payment method per payment context, vertical, and country is a key enabler to online sales conversion.

Furthermore, we acknowledge a need for a common framework of payment terminology. How could we distinguish among the 300 plus payment methods being offered by PSPs? How do payment instruments relate to online payment methods? What payment methods categories can be discerned? What are the technicalities, and how are merchant and consumers protected against fraud?

This Report, published by The Paypers, the leading one stop shop for insights into payments and commerce, aims to create a standardised terminology and framework of discourse, as well as to provide you with the invaluable insights into the state of affairs of the payment world today and tomorrow.

The goal of this Report is to provide global merchants and PSPs with:
- An understanding of what is driving innovation in payments;
- An insight into payment behaviour of consumers, as well as what drives adoption of payment methods;
- A common framework of payment methods terminology;
- An educational overview and explanation of payment instruments and payment methods categories;
- Insights from both card schemes and European alternative payment methods on key areas like payment preferences and some country specific insights;
- Best practices from both merchants and PSPs in defining the right payment mix.

In the section on payment methods, you can get informed about a variety of alternative payment methods which operate on a regional or global scale, such as PayPal, Trustly, iDEAL, Pay U Global, AcceptEmail, SlimPay, and Dimoco. Moreover, these contributions also reflect on current issues found in the payments market and how they are mitigated. For example, Pay U Global aims at revealing the complexity of the emerging markets like India and Latin America, and how success is reached by implementing customized business cases per country specifics.

Similarly, AcceptEmail addresses the new approach to making bill payments consumer-centric and convenient in order to leverage business. Of course, any customer gained can make the difference for a company success and that is why the company recommends taking into account all consumer categories and age groups in making a bill payment business case.

Trustly, on the other hand, analyses the way technological advancements influence Online Banking e-Payment-related consumer preferences. Taking a dual approach in terms of consumer and merchants benefits, Trustly also explores how demand is researched in various regions and countries in Europe. By doing this, they can identify hotspots for specific business cases; not only for merchants, but also for PSPs.
Introduction

SlimPay argues why cards have reached their use limit in a global context and what alternatives there are to take over the half a century long now card payments dominance.

DIAMONCO opens a new perspective in the section by focusing on direct carrier billing method of payment which, it seems, is best suited for the unbanked consumers around the world who are not familiar with contracts for loans or credit. However, the company does not overlook the consumers in developed countries like US because mobile has become a very powerful payment tool which opens new business cases in carrier-enabled payments.

Last, but not the least, iDEAL, an example of the most developed Online Banking e-Payment method on the market as many people in the industry agree, features an exclusive interview on key takeaways for any method to take into account when expanding across borders. Being the most widespread payment method in the Dutch market, iDEAL feeds on great ambitions to tap into more markets.

Since the Report cherishes all the perspectives of the established players in the industry, it has a dedicated section to card schemes where VISA and MasterCard both explain card usage globally and which solutions are developed for different users, be it still developing or already developed markets, as well as their future agenda for keeping a competitive stance with the alternatives, whose creed lies in financial technology to overthrow the currently dominant financial transaction system.

In the section about “How to integrate Payment Methods at the Checkout”, merchants (Beate Uhse and Souq.com), PSPs (PPRO, ACI and Limonetik), and Visa Europe Collab share best practices on choosing and integrating the right payment mix. Furthermore, they will comment on the latest developments in online payments: the proliferation of payment methods and to what extent a frictionless checkout process is a) truly achievable, and b) even desirable, for consumers or for retailers.

The Paypers truly believes that the Ecommerce Payment Methods Report 2016 is a must read key summary of the most important basics in the payments industry. Its main goal is to help any player, be it PSP, merchant, or industry-related readership, to take informed decisions in their future endeavours in a complex ecosystem which is constantly evolving.
The MRC is more than just a fraud and payments trade association. The MRC is a community offering professionals valuable networking and information-sharing opportunities as well as resources critical to developmental growth. MRC members have access to:

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Ecommerce payments, being one of the most rapidly changing industries in the world, is constantly in a state of flux. But what drives this surge of innovation in the market? What defines the adoption new payment methods? What does the payment method ecosystem look like and what is currently happening in Europe, the US, India, and China that might change the way consumers pay in online shops and or (social) platforms in the next 3 to 4 years?

Four trends driving innovation:

1. Changing consumer behaviour and expectations;
   - Anytime, anywhere, any device
   - Fast shipping

2. Ecommerce developments
   - Emergence of (social) platform commerce
   - Subscription commerce;

3. Technology driven innovation;
   - Innovative technology (e.g. mobile apps, application programming interfaces (APIs), cloud technology, crypto technology, artificial intelligence, internet of things and data analytics) enables so called FinTech and BigTech (the likes as PayPal, Amazon, Facebook, and Google) companies to provide superior alternatives for existing payment offerings.

4. Regulatory reforms and frameworks to clarify aspects in the ecommerce and online payment ecosystem;
   - Access to payments accounts (XS2A)
   - Interchange regulation (gap of Multilateral Interchange Fee). In this paragraph we will describe how these developments and the developments described in the paragraph on payment methods might change the current landscape of payment methods usage across regions.

Payment behaviour and adoption of payment methods

The growing number of payment services worldwide may be attributed to the fact that payment services are always subject to the context in which they are used. A context is defined by its four situational variables: value, relation, timing, and location. Payment services typically are geared towards optimizing transactional and contextual risks between buyers and sellers (online, store, mobile, in app, billboard, etc.), with each context having different requirements. As the number of buyer and seller situations is growing, the number of payment services is growing as well, offering more opportunities for different and innovative solutions.

The customer requirements for payment methods are determined by the two-sided nature of the retail payments market. There are two distinct types of users in every payment transaction, the payer and the payee. Each type of user has certain needs and reacts to different incentives. There is a payment ‘platform’ or ‘network’ (a.k.a. ‘scheme’) that brings together the two types of users by introducing one or more payment service providers acting as intermediaries between payer and payee. Payment service providers face the challenge of achieving the critical mass on both sides. Therefore, innovations need to offer benefits for both. For most two sided markets, the generic requirements for both sides of the market can be summarized in: reach, usability, and costs.
Another important characteristic of payment markets is the presence of economies of scale and network effects. Economies of scale are a characteristic of the payments market as the cost of producing just one more transaction is close to zero with a high fixed cost base. The payments market exhibits positive network externalities, and additional user adds value and increases the value of the total network.

**Payment instruments and online payment methods**

Online payment methods refer to the way shoppers can pay for their purchases over the Internet. An online payment method is presented at the checkout or payment page of the merchant and should have a clear recognition by the shopper through means of a well-known logo (e.g. MasterCard, PayPal, iDEAL) or common all-purpose words like ‘credit cards’, ‘bank transfer’ or ‘payment-on-delivery’.

Online payment methods rely on six “meta” payment instruments:

1. Card payments
2. Bank transfer payments
3. Direct debit payments
4. Cash payments
5. Crypto-currency payments
6. Direct Carrier payments

There is an endless number payment methods to match all contexts (pay in advance, pay afterwards, or payment-on-delivery, after delivery) We have identified ten different payment categories. A payment method can stand in a one-to-one relationship with an instrument, as with credit cards, but it can also incorporate several payment instruments in one method, as with e-wallets (can be topped up by debit/credit card or Online Banking e-Payments).

The ten categories we discern from one another are:

1. Credit Card
2. Debit Card
3. Pre-paid Card
4. E-wallet
5. Online Banking
6. Direct Debit
7. Invoice - Payment after Delivery – Instalments
8. Cash
9. Direct Carrier Billing
10. Cryptocurrency
Management Summary

Developments in the online payment landscape in Europe, US, India and China

Europe
One of the most debated areas of change in the PSD2 is the so called Access to Payments accounts (commonly referred to as XS2A). XS2A allows third party providers (TPP) access, with explicit customer consent to initiate payments transactions. This will enable payment initiation service providers (PISP), merchants, and other innovators (BigTech) to build new value propositions on the back of this access. This will most likely result in a proliferation and wide acceptance of TPPs. But as in any industry, many of these newcomers will not survive, causing an industry shake-out, resulting in consolidation of the market.

Currently, the payments market is very much engaged with instant payments. For merchants this will mean receiving both the payment guarantee of a credit transfer as well as the actual funds in real time (D + max 10 seconds).

Despite the fact that the interchange regulation will decrease the cost of credit card payments for the merchant, we expect that the developments described above could eventually lead to a decrease of the share of card based payment methods, in favor of credit transfers and direct debit payments.

In Germany, open invoice (28%), followed by direct debit (21.8%) are the most popular payment methods among the top 1.000 shops (Online Payment 2015, EHI Retail institute). Open invoice is also popular in the Benelux, Austria, Switzerland, and the Nordics.

US
In the US we observe two main developments. Firstly, the proliferation of e-wallets with bank frontrunners, such as Visa Checkout, MasterPass, and ChasePay. Furthermore, players who are not traditionally in the payment space, such as Apple with ApplePay, Samsung with Samsung Pay and Google with Android Pay, are revolutionizing the payments scene. Never before have the consumer’s options been so varied and personalized. However, for merchants it is only viable to accept a certain wallet if enough consumers use this payment method and would like to pay with it. The winners will be the ones that offer:
- Reach, consumers choose payment methods that are widely accepted by merchants
- Anywhere, any device, anytime
- Security
- Personalization and loyalty

Secondly, platforms like Pinterest, Instagram, Facebook, Twitter, and Google all have designed or have announced that they are going to design buy buttons incorporated into their platform. By adding buy buttons, (social) platforms can expand their ecosystem with payments and ecommerce. By adding buy buttons they remove the friction that leads to disparity between browsing and buying.
If they succeed, big and small merchants can benefit from more options to convert browsers into shoppers. Among the challenges these BigTech companies face is integrating inventory and payments systems from merchants that have little experience selling goods and services outside of their own storefronts. Companies like Spreedly, Stripe and PayPal are innovators helping in solving the payments piece. On the inventory front, the launch of Stripe Relay, and PayPal’s acquisition of Modest, are designed to help solve a wide range of issues around displaying and fulfilling inventory across sites.

**India**

In India, the Unified Payments Interface (UPI), developed by banks, is aimed at the banked smartphone user. Due to its vast potential reach and ease of use (addressing via email, mobile number and ID number) it is expected to bring about a significant shift in the way mobile banking transactions are conducted in India. It allows users to make payments using mobile phones as the primary device, without the need to download an app to send or receive money. Ubiquitous mobile payments can be created outside of card networks, thus directly on the core banking infrastructure. The new system will allow for a one-click, two-factor authentication on mobile phones across bank accounts. This probably marks the end of wallets in India. In India, as with other emerging countries, cash on delivery and kiosk payments should be offered when expanding into the market. There is a traditional preference for cash payments, something that does not seem to change rapidly.

**China**

In China, the online payments market is currently dominated by two BigTech companies – Alibaba’s Alipay and Tencent’s WeChat payment with 49.2% and 20% market share respectively. Both e-wallets seek to increase market share by adding more brands and merchants within their ecosystem, something that both companies effectively handle. Also cash is king, as cash on delivery holds a strong position. The fast and vast adoption of electronic payments via mobile is likely to counter this trend in due time.
Trends & Developments in Ecommerce Payment Methods
1. What drives innovation in ecommerce payments – why is this market so dynamic?

1.1 Introduction
Ecommerce payments, being one of the most rapidly changing industries in the world, is constantly in a state of flux. But what drives this surge of innovation in the market? How do we continue to be innovative in the future? The scope of this paragraph is to reveal the four drivers of online payments innovation:
1. Changing consumer behaviour and expectations;
2. Ecommerce developments (emergence of (social) platform commerce and subscription commerce);
3. Technology driven innovation;
4. Regulatory reforms and frameworks to clarify aspects in the ecommerce and online payment ecosystem.
In the remainder of this paragraph, the four drivers will be described in more detail, with close attention for the effects on the online behaviour of consumers.

1.2 Changing consumer behaviour and expectations
There are two main distinguishable developments in consumer behaviour. Firstly, there is an increased demand for customer-centric service models: anytime, anywhere, any device. Secondly, a demand for faster deliveries has arisen. We will elaborate on both.

Shift towards personalized and seamless shopping anytime, anywhere, any device
With the continuous evolution and increasing adoption of digitized living (i.e. a lifestyle in which internet-connected devices allow people to work, shop, play, create, share, inform, communicate, and transact in an integrated manner, on their own terms, 24/7, across the globe), consumers expect greater speed and convenience. And not only in their payments experience, but also in the way they interact and consume other financial services.

Consumer preferences are changing, driven by the convenience of contactless cards, as well as online and mobile payments. New retail payment services emerging from changing consumer behaviour are expected not to impact ‘incumbents’ profits from payments directly, but to primarily accelerate the shift from cash to non-cash payments. The uptake of digital payments enables much more data (e.g. location, behavioural, search, preferences) to be captured across sales channels with each payment. The amount, as well as the value of data collected on individual consumers, is increasing, thanks to advancements in processing capability, data analytics, and data mining to identify payment patterns.

Using (and sharing) this data can be intrusive from a consumer’s privacy point of view, but the benefits (e.g. better budgeting and forecasting, better credit and risk profile, and use of relevant offers and discounts during the shopping journey) might outweigh the perceived risk of using (and sharing) this data with incumbent or new (payment) service providers.

Consumers’ expectations regarding a richer, more personalized and seamless customer journey will continue to evolve in the future. Industry players who are not capable of capturing the fundamental importance of the customer experience will struggle to survive.
Trends & Developments in Ecommerce Payment Methods

Online shoppers want fast shipping

Consumers want their online ordered products to be delivered to their front doors right away, and that is why a growing number of consumers expect merchants to offer same-day or next-day shipping services. It is a key ingredient to boosting conversion through market share increase. Oftentimes the delivery times can determine which service a consumer is going to use, especially if there are no unique product requirements on the side of the consumer. However, the practice of manually reviewing suspicious transactions in an effort to prevent online fraud is the primary blocker for same-day shipping and delivery. Taking the time to thoroughly examine potential fraud cases consumes time and adds to costs.

In order decrease the number of manual reviews, merchants could look for more sophisticated fraud prevention and authentication tools; the use of automated systems and big data to detect and handle fraud is becoming increasingly popular, even with smaller merchants. Another way to reduce fraud is to offer payment methods that impose less risks for the merchant. An example of this would be an Online Banking e-Payment method that allows consumers to make online, real-time, guaranteed payments to merchants.

1.3 Ecommerce developments

There are two distinguishable ecommerce developments that impact the online payment ecosystem. Firstly the emergence of (social) platform commerce such as social networks, large online merchants and online marketplaces. Secondly, a trend that has been observed for several years now on a global scale is the fundamental shift from ownership to access and use goods and services. New words such as “streaming”, “on-demand”, “collaborative”, “as-a-service” have appeared to qualify this new consumption model. Some refer to it as the subscription-based economy.

The emergence of (social) platform commerce

Online platforms, such as social networks, large online merchants, and online marketplaces, while ever expanding their own user base, have fragmented the web into a multitude of isolated ‘continents’, in which users can enjoy a seamless experience. Payment services are increasingly becoming part of this user experience. The platforms make it convenient to combine all sorts of activities seamlessly integrated in one platform. However, for consumers, going outside the platform poses challenges in interoperability and ease of use.

Social networks, online retailers, and online marketplaces aim to keep the customer as much as possible within their own ecosystem. For example, Amazon is providing its payment and technology services to many online retailers, ‘absorbing them’ in the Amazon ecosystem. This enables Amazon to cross and upsell adjacent (financial) services, thereby increasing retailer ‘stickiness’.

Another example is Facebook, which has grown into much more than a social networking website. It rather has become a platform with over half a million active applications running and a dedicated ecosystem where e-commerce is facilitated. This also holds for Tencent’s WeChat (China), which is combining more and more services and payment options. It now enables users to get bank statements, pay bills, read magazines, set up appointments and much more.
Platforms that are autonomous, responsive to consumer needs, and regularly add new functionalities gain consumer preference, because of the growing relevance in everyday life. Ease of use and frictionless transactions have always defined success factors, and are central to these platforms.

Ease of use definitely holds for payments, which is why the global commerce platforms all have integrated payment functions within their platforms. Users typically connect their bank account or debit/credit card with their account on the global commerce platforms. Having an own payment mechanism enables platforms like Amazon, Alibaba, WeChat, and Facebook to create a closed eco-system for commerce between their users. For example, when consumers are paying through a credit card on Amazon or Alibaba, the fact that they are paying with MasterCard, Visa, or UnionPay is obscured by a smooth user (‘one click’) experience in which the platform acts as the payee, on behalf of the actual seller.

To further extend the services of platforms, a recent development is the creation of ‘buy buttons’. Buy buttons enable immediately in-platform purchases by consumers. In other words, platform visitors can buy products without leaving the platform. Moreover, consumers do not have to search for a store or web shop that offers the product (as seen on the platform). Instead, with a click of a button the product is bought directly. Merchants are able to sell their products through a new channel, namely platforms, where they previously would use it solely as a marketing channel. As a result, merchants increase their addressable market (i.e. reach) and conversion (i.e. driven by seamless, one click payments) through these platforms. Platforms like Pinterest, Instagram, Facebook, Twitter, and Google all have or have announced to design buy buttons incorporated into their platform. By adding buy buttons, (social) platforms can expand their ecosystem with payments and e-commerce. One of the challenges these BigTech companies face, however, is integrating inventory and payments systems from merchants that have little experience selling goods and services outside of their own storefronts. Companies like Spreedly, Stripe and PayPal are trying to help solve the payments piece. On the inventory front, the launch of Stripe Relay, and PayPal’s acquisition of Modest, are designed to help solve a wide range of issues around displaying and fulfilling inventory across sites.

Subscription Commerce

In what is usually called the subscription commerce model, products and services are no longer owned by consumers, but are accessed for consumption for a limited time frame; it is usually monthly, quarterly, or yearly. The goods and services fit for this business model range from audio and video content (films, music, e-books) to telecommunications and public transport subscriptions, and even to shaving razors and groceries. A good example of the rise of subscription services is the launch of ‘grocery-boxes’; a supply of groceries, divided into individual meals, delivered to the customer on a weekly basis. Services like HelloFresh and Marley Spoon have entered the market with this business and put the subscription model to new uses.

From the merchant’s perspective, a recurring model can create a longer relationship with a customer than a one-time commercial touchpoint, and thus optimize the customer lifetime value. On the consumer side, subscribing to a service or to goods delivery reduces the interaction with a merchant, diminishes the number of visible transactions, and may result in a positive peace-of-mind effect through a frictionless customer journey.
Trends & Developments in Ecommerce Payment Methods

In Europe, SEPA Direct Debit is a common payment method for subscription commerce, as well as credit cards. By offering SEPA Direct Debit for subscription commerce a merchant avoids failed payments due to credit card expiry. Globally cards and e-wallets (PayPal) are the two most used payment methods for subscription commerce.

1.4 Technology-driven innovation

Innovative technology (e.g. mobile apps, application programming interfaces (APIs), cloud technology, crypto technology, artificial intelligence, internet of things and data analytics) enables so called FinTech and BigTech companies to provide superior alternatives for existing payment offerings. The scope of this paragraph is to reveal, firstly, how FinTech companies are capturing market share and how banks are responding. And, secondly, how BigTech could become an even bigger challenge for traditional banks.

FinTech

In the FinTech landscape, there is an increasing number of service providers that focus on improving specific parts of the traditional banking model by using innovative technology. In this traditional model, banks typically offer a broad product portfolio in retail, private, commercial, investment, and transaction banking, along with wealth and asset management and insurance.

In contrast, FinTech players focus on designing, building, and executing specific parts of the banking value chain in a better, cheaper, and faster way than banks are currently doing. With this strategy, they are able to claim a position in a specific niche of the market.

In essence, FinTech companies try to minimize friction and leverage innovative technologies (e.g. mobile apps, application programming interfaces, cloud technology, crypto technology, artificial intelligence, and data analytics) to address convenience, user experience, and functionality limitations that originate from traditional banking products and services. Technological developments enable new companies to apply a ‘narrow finance’ strategy, i.e. assess one or several specific parts of the business model and provide a superior alternative. In the payments space, FinTech challengers develop alternative payment methods like mobile wallets (SEQR, OKit), e-wallets (Revolut), crypto-payments (Bitpay), data analytics-based payments (Adyen, Pazien), and online banking based payments (Trustly).

How banks are responding to FinTech

The FinTech innovation force, backed by venture capital, causes several traditional financial products and services to be at risk. No bank (or any other financial institution for that matter) can be good at everything, everywhere for everyone, especially in comparison to the highly specialized players they are competing with. Investing in emerging technology is one way of how banks have responded on increased pressure to innovate and launch customer-centric offerings. Lending, payments, big data & analytics are the three major areas of investment by banks (these also happen to be the earliest areas of investment). Furthermore banks have initiated start-up incubator programs to explore the latest technologies and learn what works best in the market. Lately we see more and more banks offering new customer centric offerings as Payconiq (ING), MobilPay (Danske Bank), ChasePay (JP Morgan) and so on.
Trends & Developments in Ecommerce Payment Methods

This situation leads to a fragmented market, as competing (and at times even ‘hyped’) FinTech services initially suffer from limited network effects, i.e. lacking ‘reach’ and market adoption by end users. Hence, it is very unlikely that all competing FinTech services will survive. While some FinTechs develop solutions to compete and be disruptive, others are intended to complement and partner with banks. The most common motivation for complacency is that FinTechs need the scale of customers that the incumbents banks already possess.

Potentially, merchants could benefit greatly from cooperations between banks and FinTech. As banks provide reach and trust, and fintech provides agile customer-centric innovation, online Shopping will become increasingly both safe and frictionless.

BigTech

One could argue that the real challenge for banks, however, is coming from the likes of PayPal, Amazon, Facebook, and Google, who disintermediate the customer-bank relation. These BigTech companies have the resources (and experience) to deal with strict regulations and a wealth of interesting customer data to work with. Retail banks are struggling to retain their customers in the face of this disruption. The Financial Times predicts that European banks could lose out on EUR 22 billion in revenues to BigTech companies that are rivalling traditional banks with their seamless digital services.

Meanwhile, European banks are launching their first peer to peer payment offerings integrated into messenger apps. In June 2016 ABN Amro introduced the so called “Tikkie” app which enables users to select a person from their WhatsApp contacts to send a payment request alongside a one-click link to the Dutch online payment service iDEAL. Funds transferred via iDEAL are automatically credited to the customer’s current account.

Potentially merchants could benefit from the seamless digital services from BigTech companies offering them more options to convert browsers into shoppers.

1.5 Regulatory reforms and frameworks to clarify aspects in the ecommerce and online payment ecosystem

Another factor in the ever-changing landscape of online payments are major reforms to the regulation of payments.

Below we describe three regulations and directives that have and will continue to impact the payments landscape moving forward.
1. Payment Service Directive (PSD/PSD2)
2. General Data Protection Regulation (GDPR)
3. Interchange Fee Regulation (IFR)
Trends & Developments in Ecommerce Payment Methods

Payment Service Directive (PSD/PSD2)

What does this directive entail?
The Payment Service Directive, or PSD, was promulgated by the European Commission in 2007 as an initiative to harmonize online payments in the EU, and create a level playing field for non-bank payment service providers to offer online payment solutions. The directive is composed of two parts. Firstly, the market rules, which describe the organizations that are allowed to offer payment services, i.e. Credit institutions, authorities like government bodies, Electronic Money Institutions, and the new category Payment Institutions. The last category was created to give ‘non-banks’ a regulatory basis, upon which to build their payment companies. Secondly, the business conduct rules, stipulating the rights and obligations of Payment Institutions, the degree of transparency on their part, transaction rules and liabilities, and matters like value dating of payments, revoking payment orders, and refunds.

In 2013, PSD was revised to PSD2, an update to enhance competition and innovation, increase security of digital payment services, and supply legislation for two newly founded services; payment initiation services and account information services. These services can be provided by two new regulated roles: payment initiation service providers (PISP) and account information service providers (AISP).

There are three main areas of change resulting from PSD2: 1) Clarification of scope and information transparency requirements 2) Strong customer authentication, and 3) Access to payments accounts for third party providers (TPPs) (commonly referred to as ‘XS2A’), allowing TPPs access, with explicit customer consent, to aggregate account information and/or initiate payment transactions.

How does it impact online payments?
Where PSD1 contributed to the disintermediation of banks by payment institutions in the merchant acquiring business, PSD2 is expected to add to the disintermediation on the consumer side. PSD2 aims to open the payments market for innovative (bank and non-bank) providers in response to changing consumer behaviour and technology-driven innovation.
Both banks and non-bank providers are in a position to benefit from PSD2, but this regulatory reform will also cause risks for incumbents and new entrants.

PSD2 introduces new and more stringent security requirements for digital payments. That is, all electronically initiated payment transactions need to comply with strong customer authentication. This is a specific authentication procedure including at least two out of the following three factors: 1) Something only the user knows, e.g. passcode or PIN; 2) Something only the user possesses, e.g. mobile phone or token; or 3) Something the user is, e.g. biometrics such as fingerprints. It should be noted, however, that the European Banking Authority (EBA), who is working on the Regulatory Technical Standards (RTS) on secure communication and strong customer authentication, will also define exemptions from the application of these requirements. Potential elements for exemptions include risk involved, transaction value, recurrence, and payment channel. PSPs will have to find a balance between creating a seamless payment experience and adhering to the enhanced security measures described above.

The PSD2’s access to the account (XS2A) section is hotly debated. It requires banks to allow regulated TPPs access, with explicit customer consent, to aggregate account information and/or initiate payment transactions.

Banks will come under increased pressure to defend the ownership of their customers, although they too could benefit by creating new services. In a recent report, Accenture predicted that UK banks could be poised to lose up to 43% of their retail payments based revenues by 2020 as the PSD2 accelerates advancements in e-commerce and contactless technology (Accenture Report, Seizing the Opportunities Unlocked by the EU’s Revised Payment Services Directive, PSD2: A Catalyst for New Growth Strategies in Payments and Digital Banking, May 2016).

XS2A does not only require a mere operational and compliance approach from incumbent payment institutions. They will need to define exactly what role they want to play in payments and how they want to interact with the end-customer. Banks need to determine a strategic value chain position that fits the bank’s capabilities and ambitions. This is key to being relevant to customers in the future.

More open and easy access to accounts will benefit PSPs, merchants, and other innovators who are able to build new value-propositions on the back of this access. At the same time innovators will keep on convincing consumers to start using their services, as it is not a given that all consumers will switch immediately.

Large merchants could potentially become a Payment Initiation Service Provider (PISP) themselves, having the option to initiate payments from a consumer’s bank account, potentially reducing cost of their payment operations. Whether merchants will consider this role will largely depend on the business case. In addition, most merchants, even the largest, might not want to deal with technical and regulatory challenges to build these services on their own. Most likely PSP’s will fill this gap. BigTech players could also become a PISP, leveraging their brand recognition, trust and large user base. PSD2 will most likely lead to new services and more payment methods for consumers to choose from. In the near future this might lead to further fragmentation of the payment landscape as TPPs enter the market. As in any industry, many of these newcomers will not survive, causing an industry shake-out, resulting in consolidation of the market.
General Data Protection Regulation (GDPR)

What does this regulation contain?
The General Data Protection Regulation (GDPR) was entered into force on 5 May 2016 and EU Member States have to transpose it into their national law by 6 May 2018.

The objective of this new set of rules is to give citizens back control over their personal data, and to simplify the regulatory environment for business. The data protection reform is a key enabler of the Digital Single Market which the Commission has prioritized. The reform will allow European citizens and businesses to fully benefit from the digital economy. The fact that it is a “regulation” instead of a “directive” means it will be directly applicable to all EU member states without a need for national implementation of legislation.

Crucial to the General Data Protection Regulation (GDPR) and integral to the entire legislation, is its explicitly extended territorial scope. This reflects an increasing trend of the Court of Justice of the European Union (CJEU) and regulators to apply EU data protection law to organizations which might not, in the past, have been considered to be within scope.

GDPR applies:
- to the processing of personal data in the context of the activities of an establishment of a controller or a processor in the Union, whether or not the processing takes place in the Union;
- to the processing of personal data of data subjects who are in the Union by a controller or processor not established in the Union where the processing relates to the offering of goods or services (whether free or paid for) or the monitoring of behaviour which takes place within the EU; and
- to the processing of any personal data by a controller outside the EU but in a jurisdiction where Member State law applies by virtue of international law (e.g. a diplomatic mission or consular post).
How does it impact online payments?

Any company that elects to process its data online will be required to choose a service provider that provides sufficient guarantees to implement appropriate technical and organizational measures. The processing needs to meet the requirement of the data protection regulation and ensure the protection of the rights of the individuals, which also touches payment service providers. In other words, the data controller must ensure not only that the data processor uses security measures, but also that the processing conducted, and the security measures used, by the service provider meet the regulation. This very specific requirement could be problematic, since service providers have generally been reluctant to share or disclose the nature of the security measures they use, or the way they process the data in their custody.

The way that this impacts online payments is that with digital payments more transaction information on customers has become available. With the advance in data mining and analytics, PSPs become better equipped to also use this data for their own use, e.g. tailored payment products to settle transactions, personalized marketing and offers, and for repackaging and reselling data to 3rd parties. Especially the latter caused a lot of discontent with customers, who do not approve of their information being commercialized without their explicit consent. GDPR was founded on these concerns, and tries to put boundaries on the ways in which this data can be used, essentially putting the customer back in control.

Interchange Fee Regulation (IFR)

What does this regulation contain?

In 2013 the European Commission announced the IFR to cap the Multilateral Interchange Fee (MIF); a fee paid by the acquirer to the issuer with every card payment. The IFR is aimed at actively supporting innovation and reducing the costs of card transactions in the EU, especially for the merchant. The IFR aims at stimulating innovation within the European payments landscape and creating a level playing field.
How does it impact online payments?

A merchant pays a so called Merchant Service Charge (MSC) to the acquirer that enables the merchant to accept card payments. The MSC consists of:

- Scheme fee (for Mastercard/Visa connectivity)
- Interchange fee (for the issuer, this is the largest part of the MSC)
- Service fee acquirer (basically the margin that the acquirer earns for providing card acceptance services)

Although costs for merchants were reduced in most instances, the promise to pass on these financial benefits to the consumer was not fulfilled in Europe. This is not completely unprecedented; to illustrate, in the United States caps on interchange fees came into effect in 2011. It is reported that major retailers have seen an USD 8 billion annual return, while 94% of the consumers did not experience any significant savings. We see certain effects of the IFR that could influence the susceptibility of the consumer for either price or service: lower credit card transaction costs, increased ability to compete with debit cards, Online Banking e-Payment and cash payments, transparency about merchant transaction costs, but also merchants refusing more expensive cards, and an increased price gap between normal and premium cards. The reduced costs for merchants in card acceptance could also lead to an increased usage of cards in markets that had relatively high credit card interchange fees, such as Central Europe, Eastern Europe, and Germany.
The Online Payment Methods Ecosystem Explained
The customer requirements for online payment methods are determined by the two-sided nature of the retail payments market. There are two distinct types of users in every payment transaction, the payer and the payee. Each type of user has certain needs and reacts to different incentives. Before describing the different payment instrument and online payment methods categories we start this chapter with explaining the payment context.

2.1 Understanding the payment context

Introduction
This paragraph illustrates the factors determining how merchants and consumers choose their preferred payment method, as well as how shopping and payments are related.

How consumers and merchants are related: a two-sided market
A two-sided market is an economic network, also referred to as a two-sided network with two distinct user groups, whose members consistently play the same role in transactions, as depicted in figure 4. Each user group requires a different type of service for the ‘platform’ or ‘network’ that brings together the two types of users. The two distinct user groups have distinct needs that are independent.

In such a market we see evident network effects. In the transactional context, benefits of usage are experienced across sides. A new payment method needs to convince merchants that it has a substantial user base and consumers need to be convinced that they can use the payment method when they need.

Figure 4: A two sided market buyer (shopper) and seller (merchant)

Source: Innopay
The Payment Methods Ecosystem Explained

In a two sided market we typically see the following challenges:

- Chicken-and-egg phenomenon: merchants won’t support a new payment method unless lots of valuable customers insist on it, but said customers won’t insist on a particular payment method unless lots of merchants support it.
- The winner takes all: the risk of rivals wanting to become the sole provider. You can argue how many wallets a consumer needs if one addresses (most of) his needs.
- Pricing of services across both sides: in payments the payer is subsidized by the payee.

How the providers rise to these challenges determines their success and place in the market. Securing critical mass in payments is an incredibly hard problem. To get a critical mass of consumers and merchants for a new payment method, that method has to solve a significant friction and or financial gain (loyalty points/additional means of financing).

**Transactional context and the associated risk**

Transactions are determined by contexts. The ‘transaction context’ is the total of situational circumstances in which three processes of the transaction take place: agreement, payment and delivery. For buyer and seller risk is at the heart of every transaction, as depicted in figure 6.

![Figure 5: Transactions consist of three processes: agreement, payment and delivery. For the buyer and the seller risk is at the heart of every transaction.](source: Innopay)
The Payment Methods Ecosystem Explained

In traditional commerce, the three processes are executed at one time, in one place. Hence, the risk is balanced. However, ecommerce has changed the dynamics of transactions. Transaction processes are now disconnected in time and place, introducing unbalanced risks. These risks can be characterized by four risk factors:

1) Relation (r) Do buyer and seller know or even trust each other?
2) Product (p) What is the value and substance of the product involved?
3) Location (l) Where does the transaction take place?
4) Timing (t) In what order are Agreement, Payment and Delivery executed?

Timing, the timeline and order in which the processes are executed, determines whether buyer or seller bares the risks. Processes can be executed simultaneously or disconnected. In the latter case the order of payment and delivery can be swapped. This leads to three generic types of timing of the payment, as is depicted in figure 7.

![Figure 6: The timeline and order in which the processes are executed. Processes can be executed simultaneously or disconnected.](image)

This has led to the development of an endless number of payment methods which are suited for all contexts. Online banking, e-wallets, and credit cards for in-advance payments and invoice (or pay in instalments) for afterwards payments. As for pay and delivery at the same time there is usually the cash-on-delivery payment option.

Reach, conversion and fair cost

Successful payment methods provide reach, conversion (convenience) and fair cost for both buyers and sellers. As such, it is not only the innovative element of a payment method that ensures mainstream usage but also its provision of reach to a significant network of buyers, conversion from visitors to actual customers and cash-like usage cost (subsidy) for buyers and sellers.
As new payment methods need reach to become successful, many do not survive for long and, since the uptake of the payment method takes too much time, merchants and consumers will lose faith and abandon the novelty. Therefore, the optimum path is to keep balance between reach, conversion and cost as is depicted in figure 8.

Thus, a successful payment method is tailored for the context in which it is required, either online, in-store, or both. The creation of new contexts (mobile, wearable payments) allow for more payment options to appear on the market, all with their own particular niche context.
Against this backdrop, risk (or perceived risk, trust) is a determining factor in the choice for a payment method by consumers and merchants. The rise of the internet introduced a totally new context in which new risks were introduced. Nowadays, the challenge is to balance ‘fit-for-purpose’ (a payment method should meet the requirements of the specific context) with ‘simplicity’ because fragmentation leads to complexity for merchants and consumers.

The added value of payments is to create loyalty programmes by enabling the building of client shopping profiles and, then, providing customised merchant offers, such as discounts or free shipping for using debit cards, for example, instead of cash.

2.2 Payment Instruments

Introduction
Online payments could be described as the way shoppers can choose to pay for their online purchases and where the payment method itself is selected online. ‘Online’ refers only to the condition that the selection of the payment method is made online, e.g. in merchant’s online shop or within the app. It does not require that the actual transfer of funds is initiated online or happens online. One should take into consideration that not every consumer prefers to pay online and in real-time, or even has the option to do so. Twenty percent of all people worldwide are still unbanked and do not have access to banking products (e.g. Online Banking e-Payments or debit/credit cards).

Online payment methods refer to the way shoppers can pay for their purchases over the Internet. An online payment method is presented at the checkout or payment page of the merchant and should have a clear recognition by the shopper through means of a well-known logo (e.g. MasterCard, PayPal, iDEAL) or common all-purpose words like ‘credit cards’, ‘bank transfer’ or ‘payment-on-delivery’. Online payment methods rely on six “meta” payment instruments:

- Card payments
- Bank transfer payments
- Direct debit payments
- Cash payments
- Crypto-currency payments
- Direct Carrier payments

Normally, online payment methods refer to online payment method brands (MasterCard, Bitcoin, Boleto, Bancontact), online payment solution brands (e.g. Klarna, PayPal, MasterPass) or directly to one of the payment instruments (e.g. ‘bank transfer’). In this report we draw a clear line between the six payment instruments, the actual tools for a transaction, and payment methods, the ways in which these tools are put to use.
The Payment Methods Ecosystem Explained

Each of the six payment instruments has its own local, regional, global or vertical payment ecosystem. Ecosystems are represented by a specific payment ‘scheme’ which can be described as the institution that sets the governing rules and technical standards for the execution of payment transactions using one of the underlying payment instruments.

Payment Instruments:

1. Cards

   Credit Cards

Credit Cards are issued to cardholders after which a revolving account is created by the issuer, granting a line of credit to the cardholder, from which the cardholder can borrow money for payment to a merchant. Credit card balances are usually revolving, whereby part of the balance needs to be paid (with interest and/or charges) on a 30-day basis, until the full balance is paid.

For credit cards we distinguish two different type of schemes. The three corner model (closed and exclusive scheme, e.g. AMEX, Diners Club) and the four corner model (open and inclusive scheme, e.g. MasterCard, VISA).

A three corner scheme model consists of three parties whereby the issuer (having the relationship with the cardholder) and the acquirer (having the relationship with the Merchant) is the same entity. This means that there is no need for any charges between the issuer and the acquirer. These schemes could be seen as ‘premium’ card schemes as they tend to have strong cardholder focus and to provide additional privileges for cardholders. Merchants are often charged a relatively high merchant service charge. Examples of this setup are Diners Club, Discover Card, American Express.

In a four corner scheme model the issuer, who has the relationship with the card holder, and the acquirer, who has the relationship with the merchant are two different entities. The four parties consist of the consumer, the merchant, the issuer and the acquirer. These four-party schemes are referred to as ‘open schemes’ as they allow banks and other financial institutions to join, to start issuing their cards and/or to acquire merchants for card acceptance. The four-party model is known for its interchange fee revenue model. The interchange fee is a fee – fixed or a percentage of the transaction – that is paid from the acquirer to the applicable issuer. The interchange fee represents a major share in the total merchant service charge. Examples of this setup are: MasterCard, Visa, UnionPay, JCB and RuPay (India).
The four corner model credit card scheme is depicted in figure 8.

*Debit Cards*
Debit cards are directly linked to the checking account of the buyer. Debit cards require a PIN when used at the Point-of-Sale (POS), ensuring that debit card transactions are more secure than credit card transactions, by enforcing two-factor authentication as a means of verifying the identity of the card/account holder. Several providers also offer the option of using the debit card online, via checkout services connected to the card provider. In these cases, the consumer has a password in place for authentication purposes.

*Pre-paid cards*
These cards run on scheme networks such as Visa and MasterCard and are usually authorized immediately.
2. Bank transfer payments
An online bank transfer, or online wire transfer, is simply the movement of funds from one bank account to another. When happening within one bank’s system (also referred to as ‘on-us’ transactions), this typically happens in real-time. Transfers between banks can take longer (depending on the cut-off times) and are often subject to fluctuation of speed depending on the size of the transfer.

3. Direct Debit
In this report we will confine ourselves to the description of the European SEPA Direct Debit (SDD) Core scheme. This scheme, like any other direct debit scheme, is based on the following concept: “I request money from someone else, with their prior approval, and credit it to myself”. The payer and the biller must each hold an account with a payment service provider (PSP) located within SEPA. The accounts may be held in euro or in any other SEPA currency; however the transfer of funds (money) between the payer’s bank and the biller’s bank always takes place in the euro currency. The SDD Core scheme allows a biller to collect funds from a payer’s account, provided that a signed mandate has been granted by the payer to the biller. A mandate is signed by the payer to authorize the biller to collect a payment and to instruct the payer’s bank to pay the agreed collections. Payers are entitled to instruct their banks not to accept any SDD collections on their accounts. The mandate expires 36 months after the last initiated collection. The signed mandate must be stored by the biller as long as the mandate is valid and for a minimum of 14 months after the last collection. The mandate can be issued in paper or electronic formats.

4. Cryptocurrency
Cryptocurrency is a digital currency in which the regulation of the amount of currency units and the verification of transactions of these units are done through cryptographic techniques. Cryptography is generally used to secure the transactions, and also to control the creation of new currencies or coins. The first cryptocurrency to be developed was Bitcoin in 2009. Nowadays, there are hundreds of other cryptocurrencies, often referred to as Altcoins, although Bitcoin is the largest cryptocurrency in both market capitalization, volume, acceptance, and notoriety. Bitcoin allows people to pseudo-anonymously buy goods and services over the internet. All transactions are publicly visible, but the account numbers are anonymized, and are not in someone’s name.

5. Cash
Not every consumer prefers to pay online and in real-time, or even has the option to do so. 20 percent of all people worldwide are still unbanked and do not have access to banking products (e.g. Online Banking e-Payments) or debit/credit cards. Cash payments are still a relevant payment instrument for payment methods developed to cater the needs of these groups.

6. Direct Carrier Billing
Direct carrier billing can be defined as “making a payment for goods or services which is charged to the customer’s mobile phone account, either to the monthly bill (for customers with a contract) or as a debit from prepaid credit. This payment instrument enables merchants to monetize consumers who do not own a debit or credit card, such as the unbanked (i.e. consumers who do not have access to banks or credit unions), underbanked (i.e. consumers either having a checking or savings account, but also relying on alternative financial services) and younger demographics.
2.3 Online Payment Methods

As mentioned before, online payment methods refer to the ways shoppers can pay for their purchases over the Internet. There is an endless number of payment methods to match all contexts (pay in advance, pay afterwards and payment and delivery are at the same time).

We have identified ten different payment categories. A payment method can stand in a one-to-one relationship with an instrument, as with credit cards, but it can also incorporate several payment instruments in one method, as with e-wallets (can be topped up by debit/credit card or Online Banking e-Payments).

The ten categories we discern from one another are:

1. Credit Card
2. Debit Card
3. Pre-paid Card
4. E-wallet
5. Online Banking
6. Direct Debit
7. Invoice - Payment after Delivery – Instalments
8. Cash
9. Direct Carrier Billing
10. Cryptocurrency

In this paragraph we will elaborate on these ten payment method categories consisting of both card based payment methods and alternative payment methods.

1) Credit Card

Credit cards are widely used internationally, and enjoy a status of being widely accepted as common payment method. However, there has been a gradual decline in credit card usage internationally, as e-wallets and other alternatives gain more ground. In wake of this, loyalty cards have taken large strides towards growth. Loyalty rewards are an important factor, especially in the US, for maintaining credit cards as one’s preferred payment method. Other benefits are the relative ease of access and ease of use both online and offline, and shopper protection offered by credit card companies.

However, the fraud-prone nature of credit cards makes Card Not Present (CNP) Fraud the most common type of payment fraud. According to the “2016 True Cost of Fraud Report by Lexis Nexis Risk Solution” credit card fraud represents 41% to 63% of payment fraud across all merchant categories. Fraudulent card transactions are the number one reason for chargebacks, but not the only reason for cardholders to reclaim their money. Also disputed transactions – as a result of the non-delivery of goods or the receipt of goods which are not as described – are referred to as chargebacks.
The Payment Methods Ecosystem Explained

To combat CNP fraud and disputed transactions, credit card companies introduced 3-D Secure™, i.e. authentication protocol that requires cardholders to enter a user-generated PIN or password to verify their identity and validate the transaction. Online shoppers who wish to use 3-D Secure™ must register for this additional security feature through their card issuer.

2) Pre-paid Card

Some pre-paid cards run on scheme networks such as Visa and MasterCard. These cards can be used to make purchases or withdraw cash in the same way as a debit or credit card. The key difference is that they need to be loaded up with cash in advance – the balance then operates as the spending limit.

Another type of pre-paid cards is the type of card or voucher consumers need to buy before starting a transaction. These cards are not usually run on scheme networks (such as Visa and MasterCard) and are usually authorized immediately. Most prepaid products have a funding limit and some don’t allow multiple cards/vouchers to fund one single transaction. Pre-paid cards, with their relative safety for consumers and ease-of-access for under- or unbanked people, make them a popular payment method for consumers in BRIC-countries and under-age consumers without access to a credit card.

Examples: paysafecard, NeoSurf, Cashu

3) Debit Card

On top of the card being useful for offline payments, debit cards are increasingly used online as well. Functioning in much the same way as a credit card, but without several risks of debt, the debit card has become popular in countries that draw away from credit payments, as discussed above, but have no or little accessible online banking options. In some countries where online banking has rapidly developed and increased in popularity, debit cards are virtually no longer used online.

Examples: Visa Debit, Debit MasterCard (often issued by a bank).

4) E-wallet

An e-wallet is a digital tool for consumers to store their money. It can be seen as the digital equivalent of our physical wallet. E-wallets can contain (pre-registered) credit cards, debit cards, gift and loyalty cards and provide access to alternative payment methods like online bank transfers. Some e-wallets allow the consumer to preload money into their wallets. E-wallets provide improved payment experience and simplify online and mobile checkout. Especially on mobile devices consumers appreciate an enhanced and seamless payment experience. Security can be a weak point in this kind of payment method, because username and password are static, and therefore prone to phishing.
The Payment Methods Ecosystem Explained

Below the PayPal e-wallet is visualized.

Not long ago, e-wallets were (or used to be) invariably part of a retail giant, such as Alipay (Alibaba) and PayPal (eBay). But no longer. We have seen bank and network wallets emerge, with Visa Checkout, MasterPass and ChasePay as the forerunners. And there are other players, who have entered the market, multinationals such as Apple with Apple Pay, Samsung with Samsung Pay, Google with Android Pay, and Amazon with Amazon Payments. These players are not traditionally in the payments field, but are driven by a need to create customer ‘stickiness’ by integrating their technology into their consumers’ everyday lives.

In China, the online payments market is currently dominated by two BigTech companies – Alibaba’s Alipay and Tencent’s WeChat payment with 49.2% and 20% market share, respectively. Both e-wallets seek to in increase market share by adding more brands and merchants to their ecosystem.
The chargeback risk of an e-wallet depends on the payment instrument used to top up the e-wallet. PayPal offers consumers a protection if they are charged for goods they didn’t purchase or if the order did not arrive or if the order did arrive but is significantly different than it was described. Merchants are protected by PayPal when selling physical goods that are sold and shipped with proof of delivery from within the United States to buyers around the globe.

According to The Global Payments Report of WorldPay November 2015, e-wallets will overtake Credit Cards by 2019. However the increasing number of e-wallets might eventually lead to further fragmentation. For merchants it is only viable to accept a specific payment method if enough consumers use this method and would like to pay with it.


5) Online Banking e-Payments (OBeP)

The Online Banking e-Payments (OBeP) scheme is a type of payments network designed to facilitate online bank transfers.

In an OBeP scheme, the consumer is authenticated in real-time by the consumer’s financial institution. The availability of funds is validated in real-time and the consumer’s financial institution provides guarantee of the payment to the merchant in case the payment is made as a credit transfer (push payment): the consumer/buyer initiates the payment. The merchant receives a real-time guarantee so he can continue with the fulfilment process. The actual funds arrive later (D+1), according to the SEPA Credit Transfer Scheme.

Currently the payments market is very much engaged with real-time payments. In this context, real-time payments is about re-bundling of messaging and funds transfer, which means that the Clearing and Settlement Mechanism (CSMs), especially the Automated Clearing House (ACH) move from batch processing to real-time processing (of single transactions). The moving of the funds will then coincide with the moving of the information about the funds. The global adoption of the ISO20022 standards facilitate the proper functioning and interoperability of real-time payments, as well as all other kinds of transactional financial services (securities, trade, cards and FX). For merchants this will mean receiving both the payment guarantee as well as the actual funds in real-time (D + max 10 seconds).

A successful online banking based payment is irreversible. After the bank has received the payment the buyer cannot reverse the transfer. The merchant is not faced with a chargeback risk. Other benefits are the relatively low transaction cost compared to card, wallet, or other alternative payments.

In general, online bank transfers require strict authentication of the legitimate owner when accessing the internet banking application. Compared to other payment methods, online bank transfers do not pose a great fraud risk to the merchant. Even in the case of fraud, the merchant cannot be held accountable.
The Payment Methods Ecosystem Explained

**OBeP types**

Across markets there are several types of OBeP scheme that can be distinguished:

- **Mono-Bank OBeP** – entails that a seller or Payment Service Provider has a separate connection to each individual financial institution offering OBeP.
- **Multi-Bank OBeP scheme** – entails that a seller or Payment Service Provider has one single connection to the OBeP network in order to accept payment from any participating financial institution (e.g. iDEAL scheme in the Netherlands as depicted in figure 10, GiroPay (Germany), MyBank (EU), ePS (Austria) and Bankaxess in Norway).
- **Overlay OBeP** – third party (the overlay provider) who sits between the payment network and the consumer. The overlay provider requires the consumer to share their online banking credentials with them in order to have access to the consumer’s bank account and to initiate the credit transfer to the merchant. Examples: SOFORT banking, Trustly, PayWithMyBank.

![Figure 10: iDEAL Online Banking e-Payment scheme](image-url)

Source: Innopay
It is interesting to mention that 29 banks in India developed the Unified Payments Interface (UPI). This is a project from the National Payments Corporation of India which was launched on 11 April 2016. It is aimed at the banked smartphone user and is expected to bring about a significant shift in the way mobile banking transactions are conducted in India by allowing users to make payments using mobile phones as the primary device without the need to download an app to send or receive money. Ubiquitous mobile payments can be created outside of card networks, thus directly on the core banking infrastructure. The new system will allow for a one-click, two-factor authentication on mobile phones across bank accounts. This probably marks the end of wallets in India.

UPI promises to be a boon for ecommerce companies as it will save the hassle of managing and reconciling cash derived from the sales of products. They can now initiate collect request over the phone instead of receiving cash-on-deliveries, similarly educational institutions can collect fees, billers can collect bills from consumers by automating the collection process on the due date, one can request pocket money from their parents or peers can just split bills seamlessly amongst themselves.

6) Direct debit payments (SEPA)

SEPA Direct Debit (SDD) Core Scheme has now been implemented in all Eurozone countries. In these countries all Euro-denominated payments must be collected via the SEPA payment scheme. The SDD Core scheme currently operates alongside national Direct Debit schemes in non-Eurozone SEPA countries, including the UK. As such, it is still possible to collect Direct Debit payments through both SEPA and/or a national scheme in these countries (until 31 October 2016). SDD is pull based. Once given a mandate by their customer it is the merchant who initiates payments. SDD payments are bank-to-bank. There are no card scheme networks involved in the SDD Core scheme. All communications happen directly between the banks. To set up payments by SDD, the payer must complete a mandate to the merchant. This mandate contains bank-approved wording that makes it clear the payer is setting up an authorization for the merchant to debit their account.

The interface for completing the SDD instruction is controlled by the merchant, who then sends the direct debit initiation to the bank. However, merchants are still dependent on banks for Direct Debit payments. Direct Debit is completely controlled by banks, who have their own standards to which merchants must comply. Compliance, therefore, can pose potential problems, especially for smaller merchants.

The SDD core scheme can be used for single (one-off) or recurring direct debit collections. Direct Debit offers a relatively inexpensive payment method to merchants. SDD has seen strongest adoption in Germany, The Netherlands, Spain, and Austria. The SDD Core Scheme grants payers a ‘no-questions-asked’ refund right during the eight weeks following the debiting of a payer’s account. During this time therefore, any funds collected by SDD Core Scheme will be credited back to the payer’s account upon request. Consumers may request a chargeback (claiming it was an unauthorized transaction) up to 13 months after the settlement. Solution providers offering SDD based payment methods can take over the risk of default payments and chargebacks (e.g. RatePay in the DACH region).

Examples: Slimpay, SEPAexpress RatePay and GoCardLess
The Payment Methods Ecosystem Explained

7) Invoice - Payment after Delivery - Instalments

We distinguish two types of invoice payments; open invoice (payment after delivery) and instalments payments (a series of payments that a buyer makes instead of a lump sum to compensate the seller).

Open invoice – payment after delivery

An open invoice makes it easier for shoppers to buy products on a merchant web site. They just need to provide some personal data attribute e.g. address, telephone number, email address and date of birth and the merchant needs to assess whether the shopper is eligible to receive products or services before they actually pay for them. With this scenario an invoice is included with the purchased goods. Shoppers need to pay the amount stated on the invoice by initiating a bank transfer; otherwise they have to return the goods. If an invoice is not paid (in time), and if the purchased goods are not duly returned, merchants can turn the invoice over to a debt collection agency.

In Germany, open invoice is, by far, the most popular payment type for online purchases. The explanation for this is that Germany historically has been a catalogue/mail order country. Germans grew up with catalogues from companies, such as Otto and Quelle. Large mail order companies enjoyed success with the slogan: “try before you buy”. Germans became used to merchants bearing the cost in advance. A recent study “Online Payment 2015” by the EHI Retail Institute revealed that payment on invoice (28%) followed by Direct Debit (21.8%) where the two most popular payment methods among the top 1,000 online shops. Open Invoice is also popular in the Benelux, Austria, Switzerland, and the Nordics. Solution providers offering open invoices often take over the risk of collection of the payment. They guarantee payment to the merchant, either by some sort of insurance or by taking over the invoicing process. To do this they perform their own assessment of the shoppers risk profile and accept or decline the order online.

Instalments – paying partly after delivery

Installment payments often, but do not always, include interest to pay the seller for accepting the credit risk that the buyer will not make payments in a timely manner. The payments can be collected by sending an invoice or by automatically scheduling them using a credit card or direct debit.

This payment method makes expensive goods and services available to buyers who would not otherwise be able to afford them. However payment in instalments is no longer just for customers who are unable to settle the full amount at once, but is now also popular with customers who want to retain a degree of flexibility in their financial situation. It is popular for luxury goods, fashion and electronic goods.

Paying in instalments is popular in Germany, Austria, The Netherland, Nordics. In Turkey 88% of the consumers prefers to use their credit cards instead of debit or prepaid cards to make instalments for online purchases (source PayU).

Examples open invoices and instalments: Klarna, RatePay, AfterPay, FuturePay, Splitit, BillPay, AcceptEmail (e-billing).
8) Cash payments / Cash on delivery and Kiosk Payments

According to McKinsey 2.5 billion of the world’s adults do not have access to formal banking products. Nearly 2.2 billion of these unserved adults live in Africa, Asia, Latin America, and the Middle East. In order to sell goods and services online to consumers in these regions it is essential to offer cash payments.

We distinguish two commonly used methods of cash payments, cash on delivery and kiosk payments.

Cash-on-Delivery

Cash on delivery (COD) is a payment method in which ordered goods are carried to the buyer’s place but are handed over only upon full payment. It’s also worth remembering, though, that there’s a challenge with trying to operate with cash – most notably that it’s highly market-specific and extremely fragmented, and retailers usually have their own Cash on Delivery agent. This makes it a payment form that’s particularly challenging to adopt in the context of cross-border transactions, as it is both costly and subject to fraud. When thinking about establishing a delivery and fulfillment infrastructure in markets where Cash on Delivery is popular, it’s important to select an appropriate partner, as it’s likely that you will want them to collect cash payment on your behalf. According to WorldPay’s Global Payment Report November 2015, 6.5% of global ecommerce turnover is paid by cash-on-delivery.

Examples: DHL, DPD, Fedex, UPS and local COD-agents

Kiosk Payments

Kiosk payments are popular in among other India, Latam, Russia, Indonesia and Japan. Shoppers can choose this cash payment method and print a voucher or receive a reference number. With the voucher or reference number they can pay for the item at a kiosk, cash register at a convenience store or bank branch. The kiosk notifies the merchant that the payment was made, credits the merchants account and confirms to the merchant to ship the item.

Examples: Boleto (Brazil), Qiwi (Russia), PayNearMe (US), Konbini (Japan), Kudo (Indonesia), Barzahlen (Germany)

9) Direct Carrier Billing

Direct carrier billing, which first came into use several years ago for buying ringtones and wallpapers for mobile phones, has advanced far beyond its origins. Today, due to the rise of smartphones, it has become a convenient way for developers to monetize their apps, and a powerful tool for mobile operators to grab a piece of the “app economy”. Global mobile penetration has increased 39% since 2009, being perhaps the most significant shift in payments we’re likely to see in our lifetime.

Presently online purchases of digital content (games, music, video, e-books, ringtones) are the primary use case for direct carrier billing. Juniper Research believes that the value of digital content billed via direct carrier billing will rise from just under EUR 790 in 2015 to more than 5.2 billion in 2017, representing an average annual growth over the forecast period of 39% (source: Dimoco/Juniper whitepaper: the European digital content market today and tomorrow, April 2016).

Examples: Boku, Zong, Fortumo, Dimoco
10) Cryptocurrency

Cryptocurrency payments happen in two ways: firstly, a transaction from one crypto-wallet to another. These transactions are made exclusively in a cryptocurrency and mostly happen B2B or C2C. Secondly, a transaction in a cryptocurrency is made to a crypto-wallet, but can be transferred into a payments account that uses an institutional currency, e.g. EUR or USD. These transactions happen mostly B2C.

There is a wide range of small developers and PSPs that create these wallets, and some e-wallets have also adopted cryptocurrencies as a viable currency to deposit in the wallet. Many crypto-wallets also function as a marketplace to purchase a cryptocurrency. Typically, the first moving industry verticals offering cryptocurrencies were gaming, dating, media, and electronic goods. Later on also other industries started to offer this relatively new payment method.

The next paragraph is meant to put all of these methods, instruments, and regulations into context. It shows the trends and developments both in the markets and in the payment space, and how this relates to distinct areas.

2.4 Looking forward

In the first paragraph we described the four drivers of online payments innovation:

1. Changing consumer behaviour and expectations:
   - Anytime, anywhere, any device
   - Fast shipping

2. Ecommerce developments:
   - Emergence of (social) platform commerce
   - Subscription commerce;

3. Technology driven innovation:
   - Innovative technology (e.g. mobile apps, application programming interfaces (APIs), cloud technology, crypto technology, artificial intelligence, internet of things and data analytics) enables so called FinTech and BigTech companies to provide superior alternatives for existing payment offerings.

4. Regulatory reforms and frameworks to clarify aspects in the ecommerce and online payment ecosystem:
   - Access to payments accounts (XS2A)
   - Interchange regulation (gap of Multilateral Interchange Fee) In this paragraph we will describe how these developments and the developments described in the paragraph on payment methods might change the current landscape of payment methods usage across regions.
The Payment Methods Ecosystem Explained

**Europe**

One of the most debated areas of change in the PSD2 is the so called Access to Payments accounts (commonly referred to as XS2A). XS2A allows third party providers (TPP) access, with explicit customer consent to initiate payments transactions. This will enable payment initiation service providers (PISP), merchants, and other innovators (BigTech) to build new value propositions on the back of this access. This will most likely result in a proliferation and wide acceptance of TPPs. But as in any industry, many of these newcomers will not survive, causing an industry shake-out, resulting in consolidation of the market.

Currently the payments market is very much engaged with instant payments. For merchants this will mean receiving both the payment guarantee of a credit transfer as well as the actual funds in real time (D + max 10 seconds).

Despite the fact that the interchange regulation will decrease the cost of credit card payments for the merchant, we expect that the developments described above will eventually lead to a decrease of the share of card based payment methods.

In Germany, open invoice (28%), followed by direct debit (21.8%) were the most popular payment methods among the top 1,000 shops (Online Payment 2015, EHI Retail institute). Open invoice is also popular in the Benelux, Austria, Switzerland, and the Nordics.

**US**

In the US we observe two developments. Firstly, the proliferation of e-wallets with bank frontrunners, such as Visa Checkout, MasterPass, and ChasePay. Furthermore, players who are not traditionally in the payment space, such as Apple with ApplePay, Samsung with Samsung Pay and Google with Android Pay, are revolutionizing the payments scene. Never before have the consumer’s options been so varied and personalized. However, for merchants it is only viable to accept a certain wallet if enough consumers use this payment method and would like to pay with it. The winners will be the ones that offer:

- Reach, consumers choose payment methods that are widely accepted by merchants
- Anywhere, any device, anytime
- Security
- Personalization and loyalty

Secondly, platforms like Pinterest, Instagram, Facebook, Twitter, and Google all have designed or have announced that they are going to design buy buttons incorporated into their platform. By adding buy buttons, (social) platforms can expand their ecosystem with payments and ecommerce. By adding buy buttons they remove the friction that leads to disparity between browsing and buying. If they succeed, big and small merchants can benefit from more options to convert browsers into shoppers. Among the challenges these BigTech companies face is integrating inventory and payments systems from merchants that have little experience selling goods and services outside of their own storefronts. Companies like Spreedly, Stripe and PayPal are innovators helping in solving the payments piece. On the inventory front, the launch of Stripe Relay, and PayPal’s acquisition of Modest, are designed to help solve a wide range of issues around displaying and fulfilling inventory across sites.
India
In India, the Unified Payments Interface (UPI), developed by banks, is aimed at the banked smartphone user. Due to its vast potential reach and ease of use (addressing via email, mobile number and ID number) it is expected to bring about a significant shift in the way mobile banking transactions are conducted in India. It allows users to make payments using mobile phones as the primary device, without the need to download an app to send or receive money. Ubiquitous mobile payments can be created outside of card networks, thus directly on the core banking infrastructure. The new system will allow for a one-click, two-factor authentication on mobile phones across bank accounts. This probably marks the end of wallets in India. In India, as with other emerging countries, cash on delivery and kiosk payments should be offered when expanding into the market. There is a traditional preference for cash payments, something that does not seem to change rapidly.

China
In China, the online payments market is currently dominated by two BigTech companies – Alibaba’s Alipay and Tencent’s WeChat payment with 49.2% and 20% market share respectively. Both e-wallets seek to increase market share by adding more brands and merchants within their ecosystem, something that both companies effectively handle. Also cash is king, as cash on delivery holds a strong position. The fast and vast adoption of electronic payments via mobile is likely to counter this trend in due time.

2.5 How to accept and integrate online payment methods?
In the previous paragraphs we explained the different payment instruments and payment methods. This chapter will describe how merchants can accept and integrate payment methods.

In order to accept and integrate these payment methods merchants can choose from four options:

1. By directly integrating their online shop with a payment method (if the method allows for it).
2. By integrating their online shop with a Payment Service Provider.
3. By using a combination of direct integration and a Payment Service Provider.
4. By using a full service e-commerce platform wherein the online acceptance of payments has been pre-integrated.

In this report we will solely describe the role of PSPs in accepting and integrating payment methods.
Payment Service Providers

While PSPs started providing connections to process the payments in the Internet channel, they nowadays offer a wide range of additional financial services to their customers. A PSP is therefore an aggregator of connectivity and financial flows.

Important reasons for a merchant to do business with a PSP are:
- A single technical connection for all the payment methods that are offered to the consumer on the web.
- Access to local payment methods in defined countries.
- A single administrative connection (reporting).
- A single settlement procedure with an agreed frequency.
- Usually fewer contracts are needed, compared to having individual connections to acquirers. The PSP acts as the 'super merchant', being able to offer lower fees because of its purchasing power at the acquirers.
- Access to specialist knowledge concerning payment process.
- Risk management and fraud prevention tools are provided and regularly updated.

PSPs help online merchants and businesses to accept payments online, however, they differ when it comes to pay-outs, fees, and contracting. The PSPs can be divided into two main categories:
- Distributing Payment Service Providers
- Collecting Payment Service Providers

Distributing Payment Service Provider

This type of PSP focuses only on the connectivity aspect of the PSP. The money flows directly from the acquirer to the merchant. When using a distributing PSP, the merchant:
- Executes reconciliation in the back office (matching of orders with incoming payments).
- Executes his own cash management.
- Sets up and manage own acquirer relations.

Collecting Payment Service Provider

A collecting PSP offers connectivity and collection at the same time. The merchant’s acquirer pays out to the PSP on behalf of the merchant. The PSP aggregates all payments and pays out in regular batches and in any required currency. The collecting PSP offers the additional reconciliation information, matching the payment identification (generated by the PSP) with the order identification (generated by the merchant).

In the next section both merchants, PSPs, and Visa Europe Collab share best practises on choosing and integrating the right payment mix. Furthermore, they will comment on the latest developments in online payments: the proliferation of payment methods and to what extent a frictionless checkout process is a) truly achievable, and b) even desirable, for consumers or for retailers.
The Payment Methods Ecosystem Explained

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Infographic Presentation of Payment Methods

<table>
<thead>
<tr>
<th>Credit Card</th>
<th>Debit Card</th>
<th>E-Wallet</th>
<th>Online Banking e-Payment</th>
<th>Invoice - Instalments</th>
</tr>
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<tbody>
<tr>
<td>MasterCard</td>
<td>VISA</td>
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<td>AcceptEmail</td>
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- E-Wallet: PayPal, VISA check-out, AlliedWallet, paydirekt, Sofort, MyBank, payWithMyBank*
- Online Banking e-Payment: Trustly, IDEAL, SEPA CREDIT TRANSFER, FuturePay, PayWithMyBank, UseMyServices
- Invoice - Instalments: AcceptEmail, RatePAY, AfterPay, Klarna, BILLPAY, WU Pay, FuturePay, PayWithMyBank
- Cryptocurrency: bitpay, coinbase, BitGo, Coinify
Visit Our Enhanced Alternative Payment Method Solutions Database

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Payment Methods

- Cards
- Online Banking e-Payments
- E-wallets
- Invoice
- SEPA Direct Debit
- Direct Carrier Billing
- APMs in Emerging Countries
Visa Inc.

- Global public company (NYSE: V), headquartered in San Francisco, CA
- Key hubs: Foster City, Miami, Singapore, Dubai
- 13,800 financial institution clients and 36 million merchant acceptance globally
- 2.5 billion Visa cards (as of September 30, 2015) and USD 5 trillion payments volume (FY15)
- 2.4 million ATMs (as of June 30, 2015)
- 109 billion total transactions (FY15)
- 65,000 transaction messages per second (capacity)

MasterCard

- Global headquarters: 2000 Purchase Street Purchase, NY 10577 U.S.A
- Geographical presence: Asia/Pacific, Europe, Latin America/Caribbean, Middle East & Africa, North America
- Core solutions provided: credit, debit, prepaid, loyalty solutions, commercial, mobile, digital and online
- Antifraud solutions developed: SecureCode, Safety Net, MasterCard Identity Check, ID Theft Alert, Location Alerts, In Control, ABU and MasterCard IQ Series
Visa Inc. is committed to bringing people into the formal financial system as well as financially educate the underserved communities globally.

What payment solutions does Visa provide for the unbanked population without credit cards, generally speaking?

As a global payments technology company, we help bringing more people into the formal financial system, by partnering with banks, technology companies, governments and non-government organizations (NGOs) to extend electronic payments, financial services and financial education to underserved communities around the world.

From 2011 to 2015, roughly 200 million Visa accounts were issued to previously underserved people globally. We are increasing our efforts by seeking to provide another 500 million people with a digital payments account by 2020 as an entry point to the formal financial system (Visa made a public commitment to this end in 2015). For Visa, success lies in making payments and financial services relevant to the underserved so they have financial access, besides opening accounts. Below are some examples of our work around the world to enable unbanked population enjoy the benefits of electronic payments and increase their awareness of the payment tools positively impacting their financial inclusion:

- Egypt, India, Kenya: Provisioning mVisa, a Visa mobile network product, to give consumers access to their money or enable transactions at any merchant with a Visa logo, thus overcoming the lack of access to physical issuer branches.
- Dominican Republic: The government has administered Solidaridad, a government-to-person payment programme, funds to over 1.8 million low-income households (roughly USD 1.8 billion in disbursements) using pre-paid Visa cards.
- Mexico: Developed partnership with Bimbo to support new methods of acceptance to drive growth in far-off regions traditionally untouched by traditional POS terminals.
- Global: Educating millions of consumers on the benefits of switching to digital payment accounts and incentivising their use to access financial services.
- Global: Participating in global partnerships such as the Alliance for Financial Inclusion, World Economic Forum and Better than Cash Alliance to promote collaborative efforts to expand access to financial services, promote cash conversion and advocate for progressive policies that support financial inclusion.

- India: Partnering with Jana Urban Foundation to offer financial education and goal-based savings coaching to thousands of female clients at Janalakshmi Financial Services.
- Kenya: Supporting CARE to develop digital credit profiles of savings group members to make it easier for banks to assess clients’ risk and enable borrowing for savings groups.
- South Africa/Mozambique/Zimbabwe: Funding TechnoServe to increase usage of remittance services by migrant working communities to send money home through conducting research to understand their current behaviour/needs and promoting usage through education campaigns.
- Egypt: Supporting Egypt Banking Institute to educate 6.7 million government employees and Visa payroll cardholders on the benefits of electronic payments.

What regions prefer card payments the most and which ones have already developed interest to alternatives? Could you tell why?

“The Impact of Electronic Payments on Economic Growth” study, conducted by Moody’s and commissioned by Visa, found that adoption of electronic payments varies from a region to another. In the 70 markets the study examined, the increased use of electronic payments added USD 296 billion to GDP globally, while raising household consumption of goods and services by 0.18% per year, on average. Around 2.6 million jobs were created per year between 2011 and 2015 in the countries studied through the increased use of electronic payments.

The study saw a bigger increase in GDP because of card usage. The developed countries’ GDP rose 0.11% on average due to increased use of electronic payments. Emerging markets can have a larger impact on GDP by increasing card penetration rates. Card penetration accounts for 16% in emerging markets, one-third the size of card penetration averages for developed countries (42%). Developed countries saw a 0.08% average increase in GDP due to increased use of electronic payments.

We are increasing our efforts by seeking to provide another 500 million people with a digital payments account by 2020.
In developing payment infrastructure solutions, does VISA rely on an open business model which involves intelligence sharing with third parties? If so, what are the benefits both for VISA - third parties-end consumer triad?

Visa has recently announced the launch of Visa Developer platform, transforming the world’s largest retail payments network to an open platform that will drive innovation in payments and commerce. Now, software application developers will have open access to industry leading payments technology, products and services by Visa.

The platform is designed to help financial institutions, merchants, and technology companies meet the demands of consumers and merchants, who increasingly rely on connected devices to shop, pay and get paid. At launch, the new platform will offer access to some of Visa’s payment technologies and services including account holder identification, person-to-person payment capabilities, secure in-store and online payment services such as Visa Checkout, currency conversion and consumer transaction alerts. Visa plans to provide access to more of its payment capabilities in 2017.

The platform is the result of a multi-year initiative led by Visa’s global product and technology teams. The team is transforming Visa’s payment products and services into application programming interfaces (APIs), standard technology used by developers for building software and applications. Key attributes that differentiate Visa’s global developer programme include:

- A globally accessible developer portal offering an easy way to search Visa’s suite of payment products and services.
- An open platform that provides access to hundreds of Visa APIs and software development kits for some of Visa’s payment products and capabilities.
- A testing sandbox that offers application developers a plug and play experience, as well as access to Visa test data.
- Visa Developer engagement centres that are designed to foster collaboration and co-creation with application developers in key markets like San Francisco, Dubai, Singapore, Miami and São Paolo.

About Tarek Elhousseiny: Tarek Elhousseiny is General Manager for Visa North and Francophone Africa in Cairo, Egypt, and joined Visa in April 2003. He is a payments industry veteran with over twenty-five years of experience. Elhousseiny is responsible for developing the Electronic Payments industry across 25 markets.

About Visa Inc: Visa Inc. is a global payments technology company that connects consumers, businesses, financial institutions and governments in more than 200 countries and territories, enabling them to use electronic payments instead of cash and cheques. Visa provides processing services to our financial institution clients through VisaNet.

www.visa.com
This is the digital story of our time: everyone and everything is becoming connected. And this connectivity is transforming the way consumers interact ... and now transact. Digital payment adoption could represent 20-30% of consumer payments by 2020.

In general, what type of payment services does MasterCard provide for the unbanked citizens?
MasterCard offers a range of solutions and programmes which aim at serving the underserved. It starts with the partnerships that we enter into with governments to facilitate disbursements, such as prepaid cards onto which governments can load the beneficiaries’ funds. Such solutions exist all over the world, Europe included, through our partnerships with post offices and other public institutions at national and local level. Another solution is MasterCard Send, our platform for enabling P2P payments, which connects people worldwide to make seamless, easy payments and transfers. We also operate the MasterCard rePower Load Network that allows consumers to add cash to a payment account at participating retail locations across the globe. These solutions not only allow the initially unbanked to access their funds in a secure manner, but also to participate in an increasingly connected and digital world.

What regions prefer card payments the most and which ones have already developed an interest in alternatives? Could you tell why?
MasterCard has built the operating system that powers payments around the world. Now, we are looking at how our technology and innovation can make the shopping experience simpler and safer wherever you are – online and everywhere. People around the world shop differently – so we use deep insights and our own teams on the ground to build solutions that work in the way people want them, wherever they are in the world. As the leading payments technology company in the world, we’re thinking differently, designing products differently and innovating faster than ever before, alongside issuers and partners, to make sure that the MasterCard accounts are as digital as the consumers using them around the world.

In paying online with credit cards (directly from web browser), which regions prefer smartphones/tablets and which do so via desktops/laptops?
We’re in the midst of a global transformation as people make the shift from the offline and less connected world to being constantly connected. The digital shift is the biggest change in payments, and biggest opportunity for MasterCard, since the introduction of plastic. In the next five years, we will see more change in payments than took place in the previous 50.

Globally, mobile phone and tablet users will make 195 billion mobile commerce transactions annually by 2019, up from 72 billion in 2015, a 167% increase (December 2014 report from Juniper Research). 54% of global consumers have no reservations about using credit or debit cards to shop online on mobile devices as long as their personal information is protected (Nielsen 2014). While the list of innovations developed by MasterCard is long, MasterPass is an example of how we are changing the way consumers are paying today, online, in-store and in-app. MasterPass is a global interoperable platform that enables all types of digital transactions and richer consumer experiences. At MasterCard we want to make every device a commerce device.

In developing payment infrastructure solutions, does MasterCard rely on an open business model which involves intelligence sharing with third parties? If so, what are the benefits both for MasterCard- third parties-end consumer trident?
We’re dedicated to fostering creativity and learning from our work, so that we’re able to quickly generate the best and most inclusive products, solutions and ideas from concept through commercialisation. We’re committed to reach beyond our walls to engage and grow relationships with the best and brightest partners in the industry, so that we are able to innovate and deliver added benefits for our stakeholders.
What payment solutions have been the most requested by merchants from mid-2015 to the present times, contactless or online? Why do you think so?

In 2014, MasterCard established contactless acceptance as standard by 2020 for merchants accepting MasterCard and Maestro in Europe. This ensures that consumers will be able to pay with their contactless cards and NFC-enabled devices at all point-of-sale terminals in Europe by 2020. In addition, digital giants are now backing this technology and moving mobile devices beyond just a tool to undertake a price comparison or seeking reviews of products while in-store. All of this has spurred an increased interest in contactless, while online solutions enjoy a high level of interest for some time already. For example, more and more merchants are asking for MasterPass for safer and easier ecommerce payment experience.

Could you explain whether or not the cloud technology and APIs, as well as blockchain, have business potential in the payments industry and, if so, what could such technologies imply?

Cloud technology has been considered since Google’s Android-based HCE release. MasterCard has since made available its own product specification which allows banks to build and launch their own contactless digital payment wallets. APIs are in use by MasterCard for a variety of service offerings, such as our tokenization platform, and for its Simplify Commerce offering. Blockchain is obviously a construct that MasterCard continues to evaluate like many stakeholders in the payments industry.

About Chris Kangas: Chris has been active in the consumer payments industry for over 20 years, spanning the arc of the evolution of non-cash payments starting from check processing to credit cards, money transfer services, ecommerce payments, payment loyalty programs and now to mobile device NFC payments.

About MasterCard: MasterCard is a technology company in the global payments industry. We operate the world’s fastest payments processing network, connecting consumers, financial institutions, merchants, governments and businesses in over 210 countries and territories. MasterCard’s products and solutions make everyday commerce activities like shopping, traveling, running a business and managing finances easier, more secure and more efficient.

www.mastercard.com
One hundred years ago, people got paid in cash. They had cash in their pockets and paid for goods in cash at their local store. Cash was king. Payment was easy. Oh, how the times have changed! In some countries, you can get by for months without seeing cash, let alone paying with it. In Sweden, for example, cash and coins comprise just 2% of the country’s economy, compared with 7.7% in the US and 10% in the euro area. In 2015, only about 20% of all consumer payments in Sweden were made in cash, compared with an average of 75% in the rest of the world, according to data from Euromonitor International. Upping the ante, Denmark recently made a goal of “eradicating cash” by 2030.

While the Nordics may be leading the way, the world as a whole is spinning towards a cashless society. Developing countries that may be seemingly far behind have the opportunity to skip traditional steps towards cashlessness thanks to emerging financial technologies. We’ve come a long way in those 100 years. Today, people receive their salaries directly deposited into their bank accounts. People shop online, often from other countries. A society built around cash doesn’t make sense in the 21st century. But a society built around the bank account certainly does. Hence, the rise of Online Banking e-Payments (OBeP), which let consumers pay directly from their bank accounts.

A land of cross-border opportunities
Countries with good online banking infrastructure naturally show the largest preference for this type of payment. In the Netherlands, for example, iDeal, a bank-owned ecommerce payment system, is far more popular than credit card. In 2006, just a year after it was founded, iDeal processed 4.5 million transactions. However, in 2015 it processed 222.1 million transfers, or more than half of all ecommerce transactions in the country. This hockey-stick growth shows how preference shifts when innovative payment methods become available. Taking a step back, we see that, in Europe, cross-border ecommerce is growing year over year. Given that 93% of Europeans already use their bank account regularly, there’s clearly an eager audience ready to use a cross-border online banking payment technology when it becomes available.

Trustly, founded in 2008, is building that cross-border solution. Covering 29 European countries and connecting more than 100 banks, it has seen growth similar to iDeal’s. (In the Netherlands, Trustly actually works with iDeal to let Dutch consumers pay across borders.)

So what drives adoption then? Any innovative payment method must benefit consumers and merchants alike. For consumers, successful adoption of OBeP is due to simplicity, security and convenience. For merchants, there’s an opportunity for higher conversion rates, simplified administration and limited chargeback risk.

Benefits for consumers
Simplicity: A consumer is less likely to buy something if doing so requires too much effort, like creating an account. In fact, 25% of shoppers abandon their purchases because they are forced to create an account, according to an E-consulting survey. When shopping online with a bank transfer solution like Trustly, consumers don’t need to register an account and can make a purchase simply by entering their familiar online banking credentials from their existing bank.

Security: Online Banking e-Payments use two-factor strong authentication, which consists of “something you have” (for example, a smartphone) and “something you know” (for example, a PIN code), making it the safest form of online payment. ➔
Convenience: With m-commerce expected to grow by 60% over the next 3 years in Western Europe, according to Verdict Financial, convenience is also becoming more of a factor. Having a mobile experience that is responsive to different screen sizes will make the checkout process much more convenient and consumer-friendly.

Benefits for merchants
More options drive higher conversion: Consumers frequently abandon their online shopping cart when their preferred payment method isn’t available in the checkout. The cart abandonment rate for this reason is as high as 50% in Germany, according to data from a DIBS survey. Catering to European consumers’ preferences drives higher conversion rates.

Simplified administration: With Trustly, merchants only have to sign one agreement with one partner, they can reconcile in one format and they only need one legal entity to reach all banks and markets combined.

Limited chargeback risk: With Online Banking e-Payments, chargeback risk is minimised, which is what gives this method a major edge over credit card payments.

As global e-commerce grows, so does the potential of alternative payment methods, and online banking e-payments might just have the biggest opportunity of them all.
### Trustly

<table>
<thead>
<tr>
<th>Type of payment method</th>
<th>OBeP (online banking e-payments)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active since</td>
<td>2008</td>
</tr>
<tr>
<td>Operational Area</td>
<td>Europe, national and across borders</td>
</tr>
<tr>
<td>How it works</td>
<td>Trustly provides merchants with instant payments directly from online bank accounts across Europe. Through Trustly’s platform, funds are transferred in seconds, even during evenings and weekends when ordinary clearing systems are closed. The product is free for consumers and eliminates risk and fraud issues for merchants. The user interface can be integrated into the merchant’s webpage and visiting consumers can pay from their local bank, on any device.</td>
</tr>
<tr>
<td>Potential reach</td>
<td>Pan-European coverage, 28 EU markets + Norway</td>
</tr>
<tr>
<td>Market Share</td>
<td>For more information contact the company.</td>
</tr>
<tr>
<td>Acceptance</td>
<td>All European consumers with a online bank account</td>
</tr>
<tr>
<td>Chargeback Risk</td>
<td>No</td>
</tr>
<tr>
<td>Facts</td>
<td>For more information contact the company.</td>
</tr>
<tr>
<td>Settlement currency</td>
<td>Optional within Europe</td>
</tr>
<tr>
<td>Processing currency</td>
<td>All European currencies</td>
</tr>
<tr>
<td>Currency available for consumer</td>
<td>List currencies (EUR, GBP, SEK, DKK, NOK, PLN, HUF, BGN, CZK, RON)</td>
</tr>
<tr>
<td>Transaction volume</td>
<td>14 million transactions 2015</td>
</tr>
<tr>
<td>Implementation requirements (non technical)</td>
<td>Local entity and bank account within the EU required</td>
</tr>
<tr>
<td>Reconciliation</td>
<td>One statement for all settlements, banks, markets</td>
</tr>
<tr>
<td>Pricing</td>
<td>For more information contact the company.</td>
</tr>
</tbody>
</table>
iDEAL

How the Dutch Pay Online: Mainly with iDEAL!

10 years of success
iDEAL is by far the preferred payment method for Dutch consumers when buying online. In its 10 years of existence, the payment method has grown significantly each year, with figures outperforming the growth of online retail.

After its debut in 2005, iDEAL quickly became the digital payment method of choice for all sorts of digital payments, including ecommerce, ticketing, invoicing, charity donations and various top-ups. In 2015, iDEAL was used 222 million times for payments, with an average value of little over EUR 81 per transaction.

Consumers’ preference in ecommerce payments is best illustrated with usage figures. The market share for iDEAL has been over 50% for several years now, with credit cards currently in second place (Figure 1).

Figure 1 – Market shares of payment methods for online purchases in 2015

Source: E-Commerce Payment Monitor 2015 – GfK

Payment methods with a growing interest among consumers are PayPal and AfterPay. However, it must be said that both payment types are typically funded with an iDEAL payment.

Regarding brand value, iDEAL ranks top 5 in the list of indispensable brands by EURIB (European Institute for Brand Management) for the past years, being the highest rank among the financial brands. The brand value is established through an extraordinary safety and security standard showing no substantial fraud, combined with intensive involvement towards all relevant stakeholder groups.

It’s all about reach and conversion
Merchants require payment methods to have good reach among buyers and an excellent user experience, thus contributing to sales conversion. iDEAL payments are integrated in the online banking portal and mobile banking app of all relevant banks in the Netherlands, reaching over 90% of Dutch individuals.

Given buyer preference – as reflected in its market share – iDEAL is a must-have payment method for all merchants selling into the Netherlands. Regarding conversion, more than 85% of all iDEAL transactions convert to a successful irrevocable payment.

Mobile payments with iDEAL
An even better user experience has been created with iDEAL Mobile payments, where iDEAL payments initiated from a smartphone are authorised in the mobile banking app simply with a 5-digit pin. The increased ease-of-use for consumers is reflected in a higher conversion rate – 90% – for iDEAL Mobile transactions.

With a blurring line between online and physical shopping, iDEAL from now on also facilitates online payments in the real world with the introduction of iDEAL QR payments. This is a secure way of initiating an iDEAL payment by scanning a QR code. Typical use cases for iDEAL QR are:

- charity donations through an iDEAL QR code printed on flyers or on a collection box;
- transferring authorisation for a web shop payment from the computer screen to a mobile device, benefiting as a merchant from the higher conversion rate of iDEAL Mobile transactions;
- invoice payments with the iDEAL QR code printed on paper or displayed on a screen.
With an iDEAL QR app available in the Google and Apple app stores, the advantages from these type of applications are immediately available to all users of iDEAL Mobile.

**Made for international merchants**

Based on SEPA Credit Transfer, iDEAL payments can be done into any IBAN bank account in Europe. The iDEAL scheme is open to all registered financial institutions in Europe. We have over 60 licensed financial institutions and half of them provide services to international merchants, accounting already for 20% of all iDEAL transactions.

Dutch consumers are experienced online shoppers with a high preference for iDEAL because of its simplicity, reliability and ease of use. The same user experience model and underlying infrastructure is increasingly being used for other digital banking products – such as e-mandates for direct debit and e-identity (iDIN). Therefore, it is expected that Dutch consumers will continue their strong preference for iDEAL in the years ahead.

**Figure 2 – Link to iDEAL animation video**
(http://vimeo.com/65631763)

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**About Max Geerling:** Max Geerling is Executive Adviser, e-Payments at the Dutch Payments Association. Max is a business expert in digital payments with a broad background in cards, online and mobile payments. He has prior experience in management positions and as a business consultant.

**About iDEAL:** IDEAL is an Online Banking e-Payment method. The scheme management of IDEAL is vested with the Dutch Payments Association, a member organisation for credit institutions (banks), payment institutions and electronic money institutions. The association organises the collective activities in the Dutch payments landscape.

www.ideal.nl/en/
**Online Banking e-Payments**

### iDEAL

<table>
<thead>
<tr>
<th>Type of payment method</th>
<th>Online Banking e-Payment with SEPA Credit Transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Active since</strong></td>
<td>2005</td>
</tr>
<tr>
<td><strong>Operational Area</strong></td>
<td>Worldwide for merchants; consumers with a Dutch bank account</td>
</tr>
<tr>
<td><strong>How it works</strong></td>
<td>After selecting iDEAL and their bank, consumers authorise the pre-filled payment in their online banking portal or their mobile banking app with a 5-digit pin. The merchant instantly receives a payment guarantee. The funds are irrevocably credited by SEPA Credit Transfer.</td>
</tr>
<tr>
<td><strong>Potential reach</strong></td>
<td>11.5 million consumers</td>
</tr>
<tr>
<td><strong>Market Share</strong></td>
<td>56% of all online consumer purchases</td>
</tr>
<tr>
<td><strong>Acceptance</strong></td>
<td>100,000 merchants worldwide (in 60 countries)</td>
</tr>
<tr>
<td><strong>Chargeback Risk</strong></td>
<td>No chargeback risk. Refunds can be easily initiated by the merchant.</td>
</tr>
<tr>
<td><strong>Facts</strong></td>
<td>iDEAL is the digital payment method of choice for Dutch consumers. Started in ecommerce, it is also being used for ticketing, e-invoices, charity donations and top-ups. In real-world situations, iDEAL payments can be initiated from a QR code on a web page, a merchant’s cash register, a paper invoice or a poster. The iDEAL QR app is available from the app stores for all iDEAL users.</td>
</tr>
<tr>
<td><strong>Settlement currency</strong></td>
<td>EUR, other multi-currency through specific payment service providers</td>
</tr>
<tr>
<td><strong>Processing currency</strong></td>
<td>EUR</td>
</tr>
<tr>
<td><strong>Currency available for consumer</strong></td>
<td>EUR</td>
</tr>
<tr>
<td><strong>Transaction volume</strong></td>
<td>222.1 million trxs / EUR 18.1 billion</td>
</tr>
<tr>
<td><strong>Implementation requirements</strong></td>
<td>Corporate bank account, Chamber of Commerce registration (at a minimum)</td>
</tr>
<tr>
<td><strong>Reconciliation</strong></td>
<td>- PurchaseID - 35 chars max. [Merchant]</td>
</tr>
<tr>
<td></td>
<td>- TransactionID - 16-digit number [Acquirer]</td>
</tr>
<tr>
<td></td>
<td>- Amount - number with 2 decimals [Merchant]</td>
</tr>
<tr>
<td><strong>Pricing</strong></td>
<td>iDEAL services are available from licensed payment service providers; see <a href="https://www.ideal.nl/en/payee/">https://www.ideal.nl/en/payee/</a></td>
</tr>
</tbody>
</table>

For the complete company profile please click here
PayPal

PayPal is bringing businesses, merchants and consumers together

Could you explain how the PayPal wallet has developed over the last decade? Has it fundamentally changed since it was founded?
PayPal wallet has become a very popular payment method, but the basic features haven’t changed much since launch. Initially, PayPal was present mainly on eBay as a sole, P2P payment method for accepting payments on eBay. Meanwhile, alongside market developments, and after the eBay phase, PayPal moved towards the merchant side. After becoming a globally accepted online payment method, PayPal moved to mobile, a really strong business foothold. This phase has marked the wallet’s second wave of growth.

Thirdly, there are two relevant segments. The former is the point where PayPal operates, which is not ecommerce anymore but just commerce. This phase is about blurring lines. The latter is the contextual commerce where the wallet gives users the opportunity to pay on platforms like Pinterest with shopping links. There, consumers can buy products just by clicking on them. In the past, PayPal was always present on the transaction side, where the merchants offered their goods, but now it is present everywhere, where shoppers are connecting with each other. PayPal’s essence is to bring businesses, merchants and consumers together. We want to be present where the transaction takes place and become the first consumer choice.

In the Netherlands, iDEAL is the dominating online payment method. What is the profile of PayPal users in the Netherlands, and in which industries/verticals is PayPal primarily used and where you see potential growth?
iDEAL has boosted the Dutch ecommerce. Many Dutch consumers still prefer this payment method. PayPal is about convenience and therefore offers the option to top up your PayPal account with iDEAL in the Netherlands, additionally to credit card connection and bank account options. There are 1.7 million active consumers in the Netherlands with a keen interest in mobile, on digital goods specifically, but also on traditional ecommerce, where PayPal didn’t use to be very present. However, it is now speeding up quickly. Even traditional Dutch household brands are accepting PayPal, showing that we have become a consumer brand and that they see the advantages of PayPal.

We have a unique proposition, offering convenience to users and merchants, for example with PayPal One Touch™. Also, our global presence provides a seamless experience across borders and allows customers to access their accounts anywhere, anytime. Our global buyer protection ensures that they can do that safely and, with our return shipping policy, we often refund the shipping costs of returns, for whatever reason, making us the most widely-used, trusted digital wallet in the world.

How does this compare with other markets in Europe?
In many markets, eBay has really been the backbone of PayPal’s growth, as in Germany, France, and the UK. Unfortunately, on the Netherlands’ market, there was no eBay presence. Nevertheless, GfK announced that PayPal is the fastest growing payment method within Netherlands. Of course, coming from a lower base, we are going towards 34%, according to GfK, compared to iDeal, with 22%.

Can you make a breakdown of the percentage of transactions PayPal processes on mobile versus online (desktop, laptop) in Europe and North America?
Globally, 29% of the current transactions are done on a mobile device. Although the traditional payment method was on desktop, most of the growth that PayPal experiences is coming from mobile. Therefore, PayPal acquired the Braintree platform, focusing on that mobile frictionless experience that supports the consumer. PayPal sees an increase in more consumer-oriented businesses and supports them by offering convenient payment solutions.
PayPal

PayPal strives to be active in the mobile space with the right experience. Users don’t want to be redirected in apps: they want a one-click payment in the app. If you are in commute, for example, and you want to make a payment on your mobile, it is unpleasant to take your card out; you might not feel that safe or maybe you don’t have your card reader with you.

How does PayPal support merchants in offering a seamless customer journey across channels?
PayPal is an open payment platform, meaning that we are technology and device agnostic. Increased customers’ interest and opportunity in NFC payments has led PayPal to partner with Vodafone, enabling millions of PayPal customers in Spain and Italy to choose the Vodafone Wallet to pay for goods and services at POS using their phones with a Vodafone NFC SIM.

In the offline environment, contactless in the Netherlands is being massively adopted. Shoppers are using their contactless cards and this process is running smoothly, showing that the Dutch market is ready for the uptake. To support this trend, PayPal has enabled consumers to connect their accounts to bracelets based on RFID technology at the Amsterdam Open Air Festival. For two days, 40,000 people were able to make purchases at the bar without the need to buy tokens at the cashiers. Furthermore, PayPal is integrated in retailer apps where PayPal is part of their payment solution or payment provider.
## PayPal

<table>
<thead>
<tr>
<th>Type of payment method</th>
<th>Wallet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active since</td>
<td>PayPal was founded in 1998 and acquired by eBay in 2002. In 2015, PayPal was split off of eBay and went public independently. In the Netherlands, PayPal has been active for more than 10 years now.</td>
</tr>
<tr>
<td>Operational Area</td>
<td>PayPal is a truly global payments platform that is available to people in more than 200 markets, allowing customers to get paid in more than 100 currencies, withdraw funds to their bank accounts in 57 currencies and hold balances in their PayPal accounts in 26 currencies.</td>
</tr>
<tr>
<td>How it works</td>
<td>PayPal is the fastest, safest and most convenient way to pay all over the world by entering your email address and password. In order to be able to pay with PayPal, you need to sign up for a PayPal account and connect either a credit card, debit card or bank account to your account.</td>
</tr>
<tr>
<td>Potential reach</td>
<td>184 million active user accounts worldwide; 1.7 million in the Netherlands.</td>
</tr>
<tr>
<td>Market Share</td>
<td>For more information contact the company.</td>
</tr>
<tr>
<td>Acceptance</td>
<td>There are 14 million merchants accepting PayPal worldwide.</td>
</tr>
<tr>
<td>Chargeback Risk</td>
<td>Buyers using PayPal are protected if they are charged for things they didn’t purchase. Their order never arrives or, if the order arrives, buyers are also protected if they are charged for significantly different products than previously described. Merchants are protected when selling physical goods that are sold and shipped with proof of delivery from within the US to buyers around the globe.</td>
</tr>
<tr>
<td>Facts</td>
<td>PayPal is the most widely-used, trusted digital wallet in the world.</td>
</tr>
<tr>
<td></td>
<td>o 184 million global active customers.</td>
</tr>
<tr>
<td></td>
<td>o 14 million of merchants accept PayPal around the world.</td>
</tr>
<tr>
<td>Settlement currency</td>
<td>Multiple currencies</td>
</tr>
<tr>
<td>Processing currency</td>
<td>Multiple currencies</td>
</tr>
<tr>
<td>Currency available for consumer</td>
<td>Consumers can get paid in more than 100 currencies and can withdraw funds from their bank accounts in 57 currencies. They can hold balances on their PayPal accounts in 26 currencies.</td>
</tr>
<tr>
<td>Transaction volume</td>
<td>USD 81.1 billion in Q1 2015</td>
</tr>
<tr>
<td>Implementation requirements (non technical)</td>
<td>You need to sign up for a PayPal account and connect either a credit card, debit card or bank account to your account.</td>
</tr>
<tr>
<td>Reconciliation</td>
<td>For more information contact the company.</td>
</tr>
<tr>
<td>Pricing</td>
<td>Free for users, merchants are charged per transaction.</td>
</tr>
</tbody>
</table>

For the complete company profile please click here
Make Bill Payments as Easy as Email and Get Paid Quicker

AcceptEmail

Making mobile payments is easy nowadays. You can leave your card or cash in your pocket and use your phone to pay for everyday things such as your groceries or a movie ticket. But telecom providers, utilities and insurance companies do not need ‘group expense settling’ or ‘pay on the go’. They just want their customers to pay on time.

It’s mostly choosing between snail mail, a self-service online portal or an aggregator, often a bank, neither of which are customer-friendly. People hardly watch their snail mail and an online portal means fetching the bill yourself after having to go through a dreadful registration process. Yet there is another set of user id and password to remember. Who wants that? Often enough, the mobile user experience of websites is still terrible. Our advice to billers is to serve a larger menu and provide choice in presentment and payment.

From now on paying bills is quick and easy

AcceptEmail is a bill on your phone, tablet or PC via email, social or text message. There is no more the need to copy details or pull out a checkbook. Just click on the banner and you can pay using your preferred payment method. You can always see precisely what you’re paying for and to whom. Once you have paid, the payment status in the email changes from blue to green. Besides the fact that it is customer friendly, there are many more advantages for billers. Every payment made with AcceptEmail matches up perfectly to the billing administration. And people pay up to 50% faster than paper bills or via a web portal. That means less reminders, less costs for dunning and more working capital. The biller can track the payment status in real time knowing exactly which bills are paid for and which not. With this instant insight he can take quick and appropriate action. Companies can save up to 70% on cost for billing and dunning. So why would you do it any other way?

Consumer-centric

By taking away all known hurdles like registering, logging, bill data retyping, archiving, payment status delaying and lacking of proof of payment, you can simplify bill payments for your customers. With AcceptEmail you can incentivise your customers to pay quicker while delivering a great user experience. We all lose bills, but we never forget where to find our email. Using AcceptEmail means you can pay your bills straight from your inbox, on any device. Pay them, file them, forward them; it’s as easy as an email and very customer centric.

Different demands

Companies which want to modernise their billing processes should not only focus on the Millennials, but also on Generation X and the Traditionalists. Each customer group has different needs. Take the Traditionalists (65+) who attach more value to privacy, security and reliability. On the other hand, Generation X (40+) just want to save time, so they can spend more quality time with the children. Finally, Millennials mainly want everything in real time, quick and personal. ‘This is the lesson we have learned in the past nine years, since our company’s foundation: every target group has its own needs, behaviours and demands. Make sure you know your customers and anticipate their needs rather than forcing them to make the switch to digital. So, find out the X factor of all your target customer groups and discover what inspires them. Let’s be honest, paying your bills can often be a chore, so make it as easy and customer-centric as it can be.’
About Peter Kwakernaak: Peter Kwakernaak has been CEO of AcceptEmail since 2008, a company providing SaaS-based electronic bill presentments and payment services via email, mobile, online and text for corporates in business to consumer and business to small business. Previously, Peter was CCO at NetEconomy.

About AcceptEmail: AcceptEmail simplifies and disrupts bill payments. It is the easiest way to receive and pay household bills by mobile, tablet or PC via email or text. Pay directly from your inbox using online payment methods with no manual data entry, registration or log-in.

www.acceptemail.com
**AcceptEmail**

<table>
<thead>
<tr>
<th>Type of payment method</th>
<th>Digital billing and mandates via email, social and text</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active since</td>
<td>2007</td>
</tr>
<tr>
<td>Operational Area</td>
<td>Global</td>
</tr>
<tr>
<td>How it works</td>
<td>AcceptEmail provides a comprehensive bill present &amp; pay and a mandate service based on e-mail, text and social via a wide variety of local payment methods: credit cards, debit cards, wallets and online banking. AcceptEmail is integrated with online payment methods such as iDEAL (NL), BCMC (BE), Giropay (GE), Maestro International and PayPal. AcceptEmail reduces costs of billing and collection and improves the DSO. It provides debtors easy 3-click secure payment from within a message without manual data (re)entry, using colours to provide realtime status update. AcceptEmail is a convenient alternative for paper bills or web-based (bank) portals.</td>
</tr>
<tr>
<td>Potential reach</td>
<td>Approx. 10 million consumers worldwide</td>
</tr>
<tr>
<td>Market Share</td>
<td>95% in The Netherlands</td>
</tr>
<tr>
<td>Acceptance</td>
<td>Broadly accepted</td>
</tr>
<tr>
<td>Chargeback Risk</td>
<td>Not applicable – part of the real time payment method.</td>
</tr>
<tr>
<td>Facts</td>
<td>Processing over EUR 2 billion.</td>
</tr>
<tr>
<td>Settlement currency</td>
<td>N/A</td>
</tr>
<tr>
<td>Processing currency</td>
<td>N/A</td>
</tr>
<tr>
<td>Currency available for customer</td>
<td>Yes</td>
</tr>
<tr>
<td>Transaction Volume</td>
<td>10 million +</td>
</tr>
<tr>
<td>Implementation requirements (non technical)</td>
<td>AcceptEmail is easily integrated and requires no investments in hardware; the application is fully web-based (SaaS). There are no maintenance costs and companies can be up-and-running in a short time. Signing-up via contract and client registration form.</td>
</tr>
<tr>
<td>Reconciliation</td>
<td>Data fields (format of data)</td>
</tr>
<tr>
<td>Pricing</td>
<td>Monthly subscription fee + transaction fee per item</td>
</tr>
</tbody>
</table>

For the complete company profile please click here
The Rise and Fall of Payment by Card

With payment technology advancing faster than ever before, we take a look back on card payments. From the first card scheme to the introduction of contactless credit cards, there are many landmarks in the history and evolution of card payments. However, their success did not happen overnight. The first credit card was introduced in the UK in 1966 by Barclays, which was based on BankAmericard, which had been launched a few years earlier in the US. Debit card was not introduced until 1987, and chip and pin in 2002. At present, card is the leading payment method in the UK in terms of value, accounting for 32% of GDP in 2014. In March 2016, a whooping GBP 51.9 billion was spent using card. Today cards are issued by numerous organisations and have varying levels of functionality depending on the issuer.

More than a payment tool...

Who hasn’t dreamed of owning a Gold Card, or proudly exclaiming “it’s on me”, while slipping their card out of their purse or wallet. A card is a sign of wealth and status to the outside world, especially when it comes to elitist cards such as American Express, Centurion or Palladium from JP Morgan.

Obtaining a card is also a rite of passage for young people, marking responsibility and coming of age. Banks try to diversify themselves from the competition based on the originality of their offers in order to appeal to this emerging group with increasing purchase power.

Victim of its own success

Despite being secure, the fact that the bankcard is used as the principal means of payment leaves it more vulnerable not only to physical theft but also to online fraud. According to the latest report from the European Central Bank, the total value of fraudulent transactions conducted using cards issued within SEPA and acquired worldwide equated to EUR 1.44 billion in 2013, which represented an increase of 8% on 2012. Unfortunately, this issue is far from being a recent problem.

Of course, precautions are in place to reduce the risk of card fraud, including 3D Secure and more complex safeguards such as dynamic cryptogram payment cards, which are equipped with a ‘mini-screen’ displaying the three-digit security code, which automatically changes on a regular basis.

It is ingenious, but it does not protect against theft of the card itself. Fraud remains a major problem inherent to payment by card. Victims of fraudulent transactions can report the incident(s) to their bank. However, when the card is blocked the situation can become complicated, as all payments associated with the card are also blocked, including subscriptions. This means that the person has to communicate their new card details to each merchant, a tedious and time consuming task.

An appetite of European consumers to use subscription for a wide range of services

![Graph showing subscriptions]

Source: study conducted by Elabe and SlimPay

An irreversible decline?

As often happens, new technology replaces the old one. The card had previously replaced the cheque and now it is its turn to become outdated, as it no longer meets the requirements of today’s consumers.

Firstly, the reliance on a physical object to make payments is losing its appeal. This observation is supported by the advent of contactless payments such as Apple Pay, which are leading us to be less dependent on intermediaries to link bank accounts and merchants. In addition, a recent study conducted by Elabe and SlimPay has revealed the emergence of another trend that has further changed our consumption habits: subscription.
This mode of consumption requires an appropriate and secure payment method, which is not affected when updating card details.

Regulation has always accompanied new payment methods (DSP1 in 2007, SEPA in 2012 and most recently DPS2) and has allowed the emergence of new players within the payment industry, including those which offer alternatives to cards such as direct debit, which are much more suited to recurring payments and subscriptions.

With all this said, we must give credit when credit is due. Payment by card is still a very practical and popular payment method. However, the very nature of technology is to constantly reinvent itself and expand the field of possibilities. It is not the end of the line for cards, but surely their heyday is over.

About Jérôme Traisnel: Jérôme is CEO and co-founder of SlimPay and president of the French Association of Payment Institutions (AFEPAME). After experiences on both sides of the Atlantic and founding Freever, an integrated mobile solution, he launched SlimPay.

About SlimPay: Created in 2009, SlimPay is the European leader for payments for subscriptions via direct debit. SlimPay provides value-added technologies and services before and after the transaction in order to maximise collected merchant revenue by providing the highest payment success rate.

www.slimpay.com
## SlimPay

<table>
<thead>
<tr>
<th>Type of payment method</th>
<th>Bank payment (direct debit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active since</td>
<td>2009</td>
</tr>
<tr>
<td>Operational Area</td>
<td>SEPA zone (34 countries) and the UK (BACS)</td>
</tr>
<tr>
<td>How it works</td>
<td>The company processes merchants’ transaction and collect money. Merchants can follow everything from their dashboard.</td>
</tr>
<tr>
<td>Potential reach</td>
<td>The company processes merchants’ transaction and collect money. Merchants can follow everything from their dashboard.</td>
</tr>
<tr>
<td>Market Share</td>
<td>Not known</td>
</tr>
<tr>
<td>Acceptance</td>
<td>Merchant: KYC check; Consumer: automated risk &amp; fraud check.</td>
</tr>
<tr>
<td>Chargeback Risk</td>
<td>No</td>
</tr>
<tr>
<td>Facts</td>
<td>July 2015: SlimPay received EUR 15 million in fund raising from Prime Ventures. November 2015: SlimPay was named France’s fastest growing technology company at the annual Deloitte Technology Fast 50 awards ceremony. April 2016: Partnership with Zuora to complete the functional scope of Zuora’s subscription platform by integrating SlimPay’s innovative payment management services. June 2016: Salesforce app</td>
</tr>
<tr>
<td>Settlement currency</td>
<td>EUR, GBP</td>
</tr>
<tr>
<td>Processing currency</td>
<td>EUR, GBP</td>
</tr>
<tr>
<td>Currency available for consumer</td>
<td>EUR, GBP</td>
</tr>
<tr>
<td>Transaction volume</td>
<td>More than EUR 5 billion processed since launch.</td>
</tr>
<tr>
<td>Implementation requirements (non technical)</td>
<td>In-house developed API and technical integration team</td>
</tr>
<tr>
<td>Reconciliation</td>
<td>Yes</td>
</tr>
<tr>
<td>Pricing</td>
<td>For more information, please contact the company.</td>
</tr>
</tbody>
</table>
Consider you have a mighty sword to fight the evil dragon with on your new browser game, the opportunity to make a contact via your preferred mobile dating app, and a cool new track recently discovered at the electronic music store you just visited via your tablet PC. What do all these random situations have in common? Besides the fact that they are all part of today’s digital market landscape, they are all made possible via digital payment methods.

Games, music and dating are just a few examples; add to it videos, e-Publishing and adult content and suddenly you can see that the digital content market is a booming industry, having grown tremendously in recent times.

Market outlook for digital content in Europe

The entire European market for digital content is expected to increase from EUR 9.2 billion in 2015 to an estimated EUR 55.2 billion in 2020, according to the released DIMOCO and Juniper Research’s white paper “The Future of Carrier Billing in Europe 3.0.” Speaking about swords, crowns and coins – the gaming segment is experiencing a faster than anticipated migration from physical to digital format. Currently, over 90% of PC games revenues are now derived from digital sales while, at the same time, there is a significant and increasing substitution of handheld games by smartphones and tablet PCs being driven by the growth in the popularity of social gaming.

Compared to past years’ estimates, the e-Publishing market is expected to be marginally higher than that originally forecast by Juniper Research, with the availability in the adult and dating sectors of greater data granularity than what marketers can develop in to income streams, adding to the upward revision.

100% European reach

With more and more digital content becoming available, it is no surprise that content providers are using carrier billing as a payment option. Reaching 100% of the European population, carrier billing is one of the principal reasons why the digital content market has grown and will continue to grow in the upcoming years. Uniquely, carrier billing offers content and service providers the opportunity to monetise consumers that don’t currently own a debit or credit card, such as the unbanked and the younger demographics, as well as customers that feel comfortable using pre-existing, trusted billing relationships with the carrier to pay for transactions that would otherwise require inputting personal credit or debit card information. With higher smartphone penetration, digital content merchants are achieving 1-click user payments and as a result making far higher sales conversion rates.

A significant driver for the carrier billing market is the European regulatory framework. This enables the growing number of new digital content providers to deploy a carrier billing option to attract new customers with its easy user 1-click purchases and attractive provider payout rates. To make it clear: 70% to 77% of conversion rates have been measured as being first-time carrier billing transactions whereas, for repeat purchases, up to an 88% conversion rate is being achieved.

In the Juniper Research report, Windsor Holden, Juniper Research Head of Forecasting & Consultancy, states: “The digital payment method – allowing people to pay via their mobile network operator - enables payment amongst a far wider and diverse user base in developed and developing markets. In the latter case, debit and credit card ownership is often extremely low; in the former, it provides a billing option to younger demographics and prepaid sector.”
Europe shows an average handset penetration rate of 126.3%, with more than 1 billion devices available, while only 34.7% of adults own a credit card. This low-credit card penetration to handset ratio offers optimal conditions for carrier billing to support digital content production and monetisation.

Based on Juniper Research data, the average transaction value for billing digital content via carrier billing in Western Europe lies at over EUR 4 and is significantly higher than the EUR 1.50, which is achieved in Central Eastern European countries.

Developments in carrier billing solutions now mean that it can be offered as a subscription model as well as for one-off purchases on a multitude of devices and contexts, thus making it an ideal alternative payment method. The potential value of digital content in Europe via carrier billing will rise from just over EUR 2.6 billion in 2015 to nearly EUR 14 billion in 2020 according to Juniper Research – resulting in a CAGR over the forecast period of 40%.

So, which markets will carrier billing shape next? Happy to receive your thoughts via https://twitter.com/Dimoco #DIMOCO or by email hello@dimoco.eu.

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**About Margit Anglmaier:** Margit Anglmaier, Vice President Corporate Communications, has led the communications department at DIMOCO for over 10 years. The 36 year old Austrian-born VP is in charge of the carrier billing institutes’ external and internal communication.

**About DIMOCO:** DIMOCO is a payment institution for carrier billing enabling almost 1 billion European subscribers to purchase goods and services from merchants and aggregators with their mobile devices which are charged via the operators’ billing system.

www.dimoco.eu
## Direct Carrier Billing

**DIMOCO**

<table>
<thead>
<tr>
<th>Type of payment method</th>
<th>Carrier billing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active since</td>
<td>2000</td>
</tr>
<tr>
<td>Operational Area</td>
<td>Mobile payments</td>
</tr>
<tr>
<td>How it works</td>
<td>Goods and services can be ordered on multiple screens and paid via the consumer’s mobile operator bill.</td>
</tr>
<tr>
<td>Potential reach</td>
<td>According the mobile penetration rate more than 100% all over Europe</td>
</tr>
<tr>
<td>Market Share</td>
<td>Contact the company for more information.</td>
</tr>
<tr>
<td>Acceptance</td>
<td>Europe-wide</td>
</tr>
<tr>
<td>Chargeback Risk</td>
<td>Depending on country and network operator</td>
</tr>
<tr>
<td>Facts</td>
<td>Contact the company for more information.</td>
</tr>
<tr>
<td>Settlement currency</td>
<td>All European currencies</td>
</tr>
<tr>
<td>Processing currency</td>
<td>All European currencies</td>
</tr>
<tr>
<td>Currency available for consumer</td>
<td>All European currencies</td>
</tr>
<tr>
<td>Transaction volume</td>
<td>Contact the company for more information.</td>
</tr>
<tr>
<td>Implementation requirements (non technical)</td>
<td>API integration necessary</td>
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<td>Reconciliation</td>
<td>Within clearing and settlement</td>
</tr>
<tr>
<td>Pricing</td>
<td>Please write an email to <a href="mailto:sales@dimoco.eu">sales@dimoco.eu</a></td>
</tr>
</tbody>
</table>

For the complete company profile please click here
Succeeding in business in any part of our ever-globalising world is challenging. But succeeding in the developing world requires even greater awareness of local cultures and tendencies. This means adapting your strategy to suit your target markets.

This is certainly true of the complex payments world. The staggering rate at which consumers from all around the world are increasingly choosing to transact online is unquestionably a massive opportunity for online merchants.

For many people in the developed world, the payment landscape is dominated by one-time card payments. But consumers in high growth markets such as Latin America, Russia and Turkey prefer uniquely local ways to pay for their goods and services. Preferences that, if not provided by payments providers to merchants looking to grow in these markets, can prove to be a real barrier to growth.

We see that three of the main local payment methods, when offered to global merchants, have proved to be hugely effective in terms of increased online sales in high growth markets.

Cash payment solutions in Latin America
One of the defining payment trends in parts of Latin America is the continuation of cash being the preferred method of payment. For example, over 50% of all online purchases are paid in cash in Argentina and Mexico. This is an understandable statistic when taking into consideration that bank account and credit card penetration in the region sit at around 50%. It means that, without cash options, nearly half the Latin American population would struggle to gain access to the ecommerce world. This is in stark contrast to European countries such as the Netherlands and Sweden where the share of cashless online and offline purchases make up more than 90% of the total consumer market.

So the challenge for companies operating in regions like Latin America is how to best unlock this huge base of potential customers and provide a solution for them to be able to order online while continuing to pay offline. PayU’s solution has been to directly connect to local cash payment providers such as Oxoxo and Boleto. Allowing consumers across Latin America to buy a plane ticket or an online gaming subscription via a website, but pay for it at their local corner shop, has proved wildly successful for merchants to expand their customer base.

This bridging of the offline and online worlds has allowed those consumers who do not have access to credit cards, or simply do not wish to use them, to participate in the online economy. That is a very powerful proposition to merchants.

Pay on Delivery in Russia
Russia is another market where we see consumers preferring to use an alternative payment method – Pay on Delivery (PoD). PoD allows Russian consumers to purchase something online but pay via card or cash upon delivery. The importance of this method should not be underestimated, as more than 75% of online orders are paid via PoD. This high adoption rate in PoD comes from the historical desire of consumers to only pay for something once received.

The ecommerce ecosystem has tried in part to shift this dependence on PoD in a number of ways such as offering 5% discounts to those who pay at the online checkout, but this has had little impact on the overall popularity of PoD, if anything there has been a slight increase in its popularity since the financial crisis.

So in summation, merchants that offer the PoD option to consumers can benefit from a real uplift in sales due to them adapting to local shopping habits.

Instalments and loyalty programmes in Turkey
When looking at the Turkish market, the story is very different. We see that nearly 90% of the payments PayU processes are made using credit cards with instalment plans attached. This tendency to break everyday payments as basic as a bag of groceries into monthly instalments might seem odd to the average consumer in Europe.
However, it is exactly these customer behaviours that can create challenges but ultimately opportunities for global merchants.

Loyalty programmes are another key part of the Turkish market. First, initiated by Garanti Bank in 2000, its Bonus Card enabled customers to collect points when they purchased goods from one merchant and spend them somewhere else. This became a win-win situation for the bank, retailers and customers. Today the Bonus Card programme has 3.6 million cardholders and over 1,000 participating retailers. The leading seven loyalty programme providers have around 94% of the market. These programmes moved the emphasis to loyalty rather than credit in the customers’ mind and are usually only available from local payment providers such as PayU.

Conclusion
In summary, what we can take from this insight into the local payment peculiarities is that the landscape changes from country to country and a ‘one-size-fits-all’ approach cannot be applied by merchants looking to expand into high growth markets.

Furthermore, when entering a new market, a clear business case must be made. Part of building this business case is to fundamentally understand how to access the large populations of these markets. Online transactions are increasing daily and, to capture that opportunity, it is imperative to understand the buying behaviours and offer the payment methods the local market demands.
### PayU

<table>
<thead>
<tr>
<th>Head office location</th>
<th>Amsterdam, Netherlands and Dubai, U.A.E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active since</td>
<td>2002</td>
</tr>
<tr>
<td>Geographical presence</td>
<td>Latin America, Europe, Middle East, Africa, Asia</td>
</tr>
<tr>
<td>Market segments</td>
<td>Multiple segments including ecommerce, online payments, virtual terminal, pay by link and more.</td>
</tr>
<tr>
<td>Payment methods processed</td>
<td>Over 250 payment methods including international and local credit and debit cards, prepaid cards, online banking/bank transfer, cash payments, e-wallets, escrow, cash on delivery and more.</td>
</tr>
<tr>
<td>Core services</td>
<td>Payment service processing, payment gateway, managed fraud services, acquiring</td>
</tr>
<tr>
<td>Other services</td>
<td>Collecting and distributing payments, fraud prevention (Anti-fraud module and control/monitoring transaction services), recurring and one click payments using tokenization, customisable payment pages, Mobile Payment Service, secured IVR, wide range of payment options (credit cards, bank transfers, cash deposits), Interface allows buyers to choose which payment method they prefer, PCI-DSS Compliant, customer service for merchants and consumers, multi-language and multi-currency interface, easy integration with open source shopping carts, reporting, and many more.</td>
</tr>
<tr>
<td>Fraud prevention measures</td>
<td>Device fingerprinting, IP geolocation, multi-merchant purchase history, global validation checks , Verified by Visa, MasterCard SecureCode, velocity checks, persistent cookies, data validation, geographical checking, parameter format checking, transaction limit checking, risk scoring, geo IP-origin check, black/white list, etc.</td>
</tr>
<tr>
<td>Security</td>
<td>PCI-DSS Level 1 compliance, HMAC, HTTPS, Redundant network infrastructure, RSA, Secure platform certified by McAfee &amp; VeriSign, TLS/SSL, Tokenizer, WS-Security, TPM, Data Centers SAS 70 type II certified, AES, MFA, IDS, WAF</td>
</tr>
</tbody>
</table>

For the complete company profile please click here
Glossary
Glossary

A

Access Card
A plastic card used in an automated teller machine (ATM) to complete deposits, cash withdrawals, account transfers, and other related account functions.

Account History
The payment history of an account over a specified period, including the number of times the account was past due or over the credit limit.

Account holder
Individual(s) responsible for paying the amounts charged to an account. A person can be allowed to use a card as an authorized user but not be legally liable for the debt.

ACH Network
The ACH Network is at the center of commerce in the US, moving money and information from one bank account to another through Direct Deposit and Direct Payment via ACH transactions, including ACH credit and debit transactions; recurring and one-time payments; government, consumer and business-to-business transactions; international payments; and payments plus payment-related information. Each year it moves more than $40 trillion and nearly 23 billion electronic financial transactions, and currently supports more than 90 percent of the total value of all electronic payments in the U.S. As such, the ACH Network is now one of the largest, safest and most reliable payment systems in the world, creating value and enabling innovation for all participants.

Acquirer
Financial institution which concludes an agreement with merchants for the acceptance of credit cards as a means of payment for goods and services, and settles card payments for merchants.

Address Verification Service
Checking method for VISA, MasterCard and American Express to prevent fraud for credit card payments in long distance transactions in which the numerical address data provided by the customer is compared with the address data stored at the credit card company.

Alternative payments
Alternative Payments methods are all those payments that are not cards running on global scheme networks such as Visa, MasterCard or American Express.

API (Application Programming Interface)
A formalized set of software calls and routines that can be referenced by a software application programme in order to access supporting network services.

App Store
An online marketplace where users of smartphones and other mobile devices can browse, purchase, and download applications, or ‘apps’, that augment the capabilities of their devices.

Authentication
A security measure designed to establish the validity of a transmission, message, or originator, or a means of verifying an individual’s authorisation to receive specific categories of information or transaction approval Encyclopedia of Terminology for the Acquiring Industry 22 (in the case of plastic cards or payment orders).

Authorisation
Online payments often involve direct authorisation from the bank of the consumer making the payment. This means that a check is carried out immediately to check whether the consumer is entitled and in a position to make the payment.
## Glossary

### B

**Bancontact/MisterCash**
It is the domestic debit card scheme in Belgium, allowing consumers to pay in real-time and guarantee payment to (online) merchants and businesses. Bancontact payments are immediately debited from the consumer’s bank account. The seller’s account will be credited the next working day. Today, there are more Bancontact/MisterCash cards in circulation (15 million) than there are Belgian citizens (10.5 million).

No less than 99% of all consumers know Bancontact/MisterCash and 86% of all payments by electronic card are Bancontact/MisterCash payments. Bancontact/MisterCash is the offline and online payment method in Belgium. Merchants are most often charged a fixed fee (EUR 0.25-0.50) and a percentage of the transaction (between 1.50% and 2.25%).

**Bank-as-a-platform**
A strategy used to allow third parties to develop applications and services around the financial institution via open APIs. Banks, as such, become fully-fledged digital players, competing and collaborating for customer relevance in payment and information services.

**Bank transfer**
A payment or money transfer between two bank accounts.

**Banking model**
It represents the diversified means by which a bank helps a customer create an operating account, make money transfers, pay pending orders and sell foreign currency.

**Banking sector**
It is the section of the economy devoted to the holding of financial assets for others, investing those financial assets as leverage to create more wealth, and the regulation of those activities by government agencies.

**Bill payment**
Bank provided service which allows customers to receive and pay bills by means of a computer or a smartphone.

**Billing and Settlement Plan**
The Billing and Settlement Plan (BSP) is the most widespread system in the world for simple processing of airline ticket sales.

### C

**Card Not Present (CNP)**
Card transaction in which a card is not physically presented to a merchant, such as over the internet.

**Card scheme**
It is a payment network directly connected to a payment card. A payment card is a payment tool issued by the bank or the financial institution that is member of the payment network (VISA, MasterCard).

**Cash on delivery**
Payment method with which payment (cash or by card) takes place when goods are delivered. In Belgium, France and The Netherlands known as ‘rembours’ or ‘remboursement’.

**Chargeback**
A process in which the card issuer can call back a transaction either in full or in part. A chargeback often applies if a card holder denies having performed a card transaction. In that case the issuer files an objection with the acquirer and demands that the transaction amount be returned from the merchant’s account.

**Checkout**
A Checkout Page is an ecommerce website page that a shopper sees during the checkout process. Those wishing to purchase a product/service will move through a series of checkout pages in step-by-step fashion until the transaction is finalized.
Chip-and-Pin payments
Chip and PIN is a UK government-backed initiative to implement the EMV (short for Europay, Mastercard and Visa) standard for smart payment cards. The name of this initiative stems from the presence of a semiconductor chip and associated circuitry in the smart card, which is used in tandem with a PIN (personal identification number).

In use, the smart card is placed into a PIN pad terminal or modified swipe-card reader, which accesses the chip in the card. The user enters a 4-digit PIN that is checked against the information stored on the card. If the entered PIN matches the stored value, the transaction is permitted to proceed.

Clearing
The process of submitting transactions to the respective card company (Visa, Discover, AMEX or MasterCard) for interchange processing, the fourth in the seven stages of processing. This presentment of the transactions is also a request for payment in the settlement process.

Click-and-collect
It is the process by which the consumer orders online (click) and collects his merchandise at a local store. It is a compromise between online and in-store shopping. The main benefits of click-and-collect for the consumer are saving delivery or shipping delays and costs. It also saves time and prevents shopping in congested stores. In some cases, click-and-collect may enable consumers who are afraid of online payment to pay at the collecting point.

Collecting Payment Service Provider
It is a technical intermediary between the seller’s website and one or more payment schemes, and collects the funds for one or more payment methods. They take away the programming complexity for the online seller by only having to integrate with the Collectors payment platform. The Collector takes care of the data processing to the applicable payment method scheme. In addition the Collector collects the transaction funds for one or more payment methods, and settles the amounts, often accumulated, into the merchant’s bank account.

Consumer Account
A deposit account held by a financial institution and established by a natural person primarily for personal, family, or household use and not for commercial purposes.

Consumer behaviour
The process by which individuals search for, select, purchase, use, and dispose of goods and services, in satisfaction of their needs and wants. See also consumer decision making.

Consumer data analytics
It is the systematic examination of a company’s customer information to identify, attract and retain the most profitable customers.

Contactless payment
Payment transaction which requires no physical contact between the consumer payment tool and POS terminal. The user simply waves the contactless card in the proximity of the RFID-enabled merchant terminal in order to scan the user account information.

Credit card
A card indicating that the holder has been granted a line of credit. It enables the holder to make purchases and/or withdraw cash up to a prearranged ceiling; the credit granted can be settled in full by the end of a specified period or can be settled in part, with the balance taken as extended credit.

Cross-border ecommerce:
International commerce is called cross-border ecommerce, when consumers buy online from merchants located in other countries and jurisdictions. Online trade between consumers and merchants which share one common language and border or which make use of the same currency are not always perceived as cross-border by consumers. EU neighbors which speak a common language, united by SEPA, are just one example.
Cross-channel
Cross-channel implies merchants who interchangeably use multiple channels to market, sell, and interact with customers. For instance, when a customer uses a merchant platform’s mobile app to look at a product but doesn’t complete the purchase, the merchant can use a cross-channel approach to remarket that product by serving up ads for it even when the customer is on another channel or platform (say email or social media).

Customer due diligence (CDD)
Identification and verification of customers and beneficial owners.

Customer loyalty
It is defined as a customer continuing to believe that a certain merchant’s product/service offer is their best option which fulfills their value proposition whatever that may be. They take that offer whenever faced with the purchasing decision. Customer loyalty is all about attracting the right customer, getting them to buy, buy often, buy in higher quantities and bring even more customers.

Customer reach
Estimated number of the potential customers it is possible to reach through an advertising medium or a promotional campaign.

CVV
A unique check value encoded on the magnetic stripe and replicated in the chip of a card or the magnetic stripe of a Visa Card to validate card information during the authorization process.

CVV2
A unique 3-digit check value generated using a secure cryptographic process that is indent - printed on the back of a Visa card or provided to a virtual account holder.

Debit card
A plastic card linked to a checking or savings account. Offline or signature - based debit cards work in the merchant environment the same as a credit card transaction and are not required to be ‘online’ to the account balance. Offline signature - based functionally work like credit cards; an initial transaction is used to hold funds and a second to settle or remove the funds from the card balance. Online debit cards or PIN - based debit cards ride over the ATM network; they require a PIN and the ability to authorize against the actual balance of the card in a single step transaction. Prepaid cards fall into the debit category.

Digital goods
A general term that is used to describe any goods that are stored, delivered and used in its electronic format. Digital goods are shipped electronically to the consumer through e-mail or download from the Internet.

Digital identity (e-ID)
A collection of identity attributes, an identity in an electronic form (e.g. electronic identity).

Digital money
Electronic money or e-money is an evolving term that can have different meanings but in principle involves the use of computer networks and digital stored value systems to store and transmit money. It may have official legal status or not.

Digital Single Market
It is one in which the free movement of goods, persons, services and capital is ensured and where citizens, individuals and businesses can seamlessly access and exercise online activities under conditions of fair competition, and a high level of consumer and personal data protection, irrespective of their nationality or place of residence.
Glossary

Digital Wallet
Also called an e-wallet, it holds digital money that is purchased similar to travelers’ checks. A wallet may also hold credit card information or checking account information along with the associated digital certificate that authenticates the cardholder.

Dynamic Currency Conversion (DCC)
Dynamic Currency Conversion refers to the situation whereby the shopper is offered a choice at the moment of payment to pay in either the home currency of the merchant or the shopper’s home currency. This offer is instantly generated by the PSP platform (often in conjunction with a DCC provider), as the DCC software recognizes the home currency of the shopper based upon the first six digits of the card, and results in a conversion wherein a mark-up has been included. If conversion can be applied depends on the fact whether the DCC provider supports currency conversion for a particular currency (otherwise the transaction is authorized in the merchant’s home currency).

Under DCC regulation the mark-up applied (generally between 2 and 4%) should be clearly visible for the shopper and it should be up to the shopper to make a choice (no opt-out allowed). The DCC mark-up (2-4%) can be shared between the merchant, Payment Service Provider, DCC provider and acquirer. DCC allows merchants to mitigate processing costs by earning back some of the commission if the shopper’s decides to pay in their home currency.

Direct Carrier Billing
It is a payment method for purchased items or services by charging the purchase to mobile phone account. At the time of checkout, the customer selects the mobile billing option on a smartphone and follows a two-factor authentication procedure. After the authentication, the consumer’s mobile account is charged for the amount of the purchase, plus applicable taxes and, in some cases, a processing fee. Direct mobile billing does not require any previous registration, and it does not involve any other sources of funding such as credit cards or bank accounts.

Direct debit
Pre-authorised debit on the payer’s bank account initiated by the payee.

Dispute transaction (card-based)
A dispute initiated by the cardholder. In the bank card industry, the dispute can be in the form of a chargeback.

Disruptive innovation
It is an innovation that helps create a new market and value network, and eventually disrupts an existing market and value network (over a few years or decades), displacing an earlier technology. The term is used in business and technology literature to describe innovations that improve a product or service in ways that the market does not expect, typically first by designing for a different set of consumers in a new market and later by lowering prices in the existing market.

Distributing Payment Service Provider
It is a technical intermediary between the seller’s website and one or more payment schemes. They take away the programming complexity for the online seller by only having to integrate with the Distributors payment platform. The Distributor takes care of the data processing to the applicable payment method scheme.

Dunning
The process of insistent demands for the payment of a debt. In the business context, it refers to the collections process, whereby a business communicates with customers who have failed to pay their bills.

E
EBA Clearing
It is a bank-owned provider of pan-European payment infrastructure solutions. The Company was established in June 1998 by 52 major European and international banks with the mission to own and operate EURO1, the only privately owned RTGS-equivalent large-value payment system on a multilateral net basis.
Glossary

**e-Banking (online banking)**
A method of banking in which the customer conducts transactions electronically via the internet.

**Ecommerce**
A way of doing real-time business transactions via telecommunications networks when the customer and the merchant are in different geographical places. Electronic commerce is a broad concept that includes virtual browsing of goods for sale, selection of goods to buy, and payment methods. Electronic commerce functions on a bona fide basis, without prior arrangements between customers and merchants. It operates via the internet using any combination of technologies designed to exchange data (such as EDI or e-mail), access data (such as shared databases or electronic bulletin boards), and capture data (through bar coding and magnetic or optical character readers).

**e-IDAS**
The European Regulation for the electronic identification and trust services for electronic transactions. Since its announcement in July of 2014, the intent of the eIDAS Regulation has been to facilitate secure and seamless electronic transactions throughout the European Union (EU) by providing a regulatory environment that would promote their use.

**e-Invoicing**
Electronic invoicing is the exchange of the invoice document between a supplier and a buyer in an integrated electronic format. Traditionally, invoicing, like any heavily paper-based process, is manually intensive and is prone to human error resulting in increased costs and processing lifecycles for companies.

**Electronic Banking**
A form of banking in which funds are transferred through an exchange of electronic signals between financial institutions rather than an exchange of cash, checks, or other negotiable instruments.

**Electronic Direct Debit**
Method in which purchasers issue the merchant with authorisation to debit funds directly from their account for a cashless transaction (in online trading by confirming the basket of goods and in POS trading with their signature or PIN). The amount is booked automatically from the consumer’s account and credited to the recipient’s account.

**Electronic Funds Transfer (EFT)**
The paperless transfer of electronically recorded payment data with a monetary value in a specific currency, accepted by a customer/contractual merchant or a bank instead of cash as a means of payment.

**Electronic payments**
Payments that are initiated, processed and received electronically.

**EMV**
The international smart card standards group made up of Europay International, MasterCard International, and Visa International.

**European Banking Authority (EBA)**
It is a regulatory agency of the European Union headquartered in UK. It concerns itself primarily with banking regulation, but has a mandate to develop technical standards for the security of internet payments.

**European Central Bank (ECB)**
The European Central Bank (ECB) is the central bank for Europe’s single currency, the euro. The ECB’s main task is to maintain the euro’s purchasing power and price stability in the euro area.
Glossary

**European Payments Council (EPC)**
The purpose of the European Payments Council (EPC), representing payment service providers (PSPs), is to support and promote European payments integration and development, notably the Single Euro Payments Area (SEPA). The EPC is committed to contributing to safe, reliable, efficient, convenient, economically balanced and sustainable payments, which meet the needs of payment service users and support the goals of competitiveness and innovation in an integrated European economy.

**E-wallet**
See definition for Digital Wallet.

**Faster Payments**
A UK banking initiative to reduce payment times between different banks’ customer accounts from three working days using the long-established BACS system, to typically a few hours. Many other countries are now adopting a similar model.

**Financial inclusion**
The ability of an individual, household, or group to access appropriate financial services or products. Without this ability people are often referred to as financially-excluded.

**Financial Institution (FI)**
Any bank, savings and loan, credit union, or other institution organized under either national or state banking laws capable of accepting deposits and/or extending credit.

**Financial services**
Services and products provided to consumers and businesses by financial institutions such as banks, insurance companies, brokerage firms, consumer finance companies, and investment companies all of which comprise the financial services industry.

**Fintech (Financial technology)**
An economic branch where companies develop technologies in order to improve the financial system.

**General Data Protection Regulation (GDPR)**
The General Data Protection Regulation (GDPR) was promulgated by the European Commission in 2016, and will take effect in a two-year transition period. The regulation is meant to strengthen and unify data protection for individuals within the EU.

**iDEAL**
iDEAL is an internet payment method in the Netherlands, based on online banking. Introduced in 2005, this payment method allows customers to buy securely on the internet using direct online transfers from their bank account.

**In-app payments**
Payments made from within mobile applications in order to purchase dedicated content like digital money, services or even products.

**Installment Payments**
The payments whereby the cardholder is able to split a payment into smaller transactions, spread over an agreed period of time.

**Instant payments**
According to the Euro Retail Payments Board (ERPB) instant payments are ‘electronic retail payment solutions available 24/7/365 and resulting in the immediate or close-to-immediate interbank clearing of the transaction and crediting of the payee’s account with confirmation to the payer (within seconds of payment initiation). This is irrespective of the underlying payment instrument used (credit transfer, direct debit or payment card) and of the underlying arrangements for clearing (whether bilateral interbank clearing or clearing via infrastructures) and settlement (e.g. with guarantees or in real time) that make this possible.’

**Interbank**
A transaction or exchange operated between banks.
Interchange fee
When a customer pays for a purchase in a store using a credit or debit card, the bank that serves the store (the ‘acquiring bank’) pays a fee to the bank that issued the payment card to the consumer (the ‘issuing bank’). A so-called ‘interchange fee’ is then deducted from the final amount that the store merchant receives from the acquiring bank for the transaction. Today, only competition rules limit the fees set by banks and payment card schemes, which are hidden from the consumer and neither retailers nor consumers can influence.

Interchange Free Regulation (IFR)
The European Parliament and the Council adopted the Interchange Fee Regulation (IFR) on April 29, 2015. Many provisions take effect on different dates, arguably the biggest change, the interchange fee cap, came into effect on December 9, 2015.

Interchange Network
An electronic network maintained by the card companies that exchanges data related to the value of card sales and credits among issuers and acquirers.

International Bank Account Number (IBAN)
Standardised international bank account number, consisting of account number, sorting code and prefix, for international payment transactions.

Interoperability
A situation in which payment instruments belonging to a given scheme may be used in other countries and in systems installed by other schemes. Interoperability requires technical compatibility between systems, but can only take effect where commercial agreements have been concluded between the schemes concerned.

Issuer
Public and private companies that enter direct contractual relationships with consumers and/or businesses to maintain and service such relationships through the issuance of one or more plastic cards.

Issuing bank
The financial institution member of the card companies that has the responsibility for issuing credit, prepaid, corporate, charge and debit cards to a consumer.

L
Loyalty Card
A brand – specific or retailer – labeled card that has cardholder benefits tied to purchase amounts, usage, membership, or number of visits. Benefits typically include coupons or discounts for future services.

M
Market fragmentation
Separation of a market that is relatively uniform in character into different segments that have different preferences and demand patterns, each requiring different marketing approaches.

Marketplace
An online marketplace/ online platform is a type of ecommerce website where product and inventory information is provided by multiple third parties, whereas transactions are processed by the marketplace operator. Online marketplaces are the primary type of multichannel ecommerce. In an online marketplace, consumer transactions are processed by the marketplace operator and then delivered and fulfilled by the participating retailers or wholesalers (often called drop shipping).

Merchant Bank
A bank which is licensed as a member of VISA/MasterCard to provide merchants with an account and therefore allows them to accept credit cards.

Millennials
A name given to the generation born between 1982 and 2004. The Millennial generation follows Generation X (1960-1980) in order of demographic cohorts. This generation is often associated with technology and social media. Also known as Generation Y.
Glossary

Mobile (payments)
Also referred to as mobile money, mobile money transfer and mobile wallet, mobile payments generally refer to payment services operated under financial regulation and performed from or via a mobile device. Mobile payment is an alternative payment method. Instead of paying with cash, check, or credit cards, a consumer can use a mobile phone to pay for a wide range of services and digital or hard goods.

Mobile network operator (MNO)
A telecommunications service provider organization that provides wireless voice and data communication for its subscribed mobile users. MNOs are independent communication service providers that own the complete telecom infrastructure for hosting and managing mobile communications between the subscribed mobile users with users in the same and external wireless and wired telecom networks. MNOs are also known as carrier service providers, mobile phone operator and mobile network carriers.

Monetisation
To monetise is to convert an asset into or establish something as money or legal tender. The term ‘monetise’ has different meanings depending on the context. It can refer to methods utilised to generate profit, while it also can literally mean the conversion of an asset into money. For example, the US Federal Reserve can monetise the nation’s debt; this involves the process of purchasing debt (treasuries) which in turn increases the money supply. This essentially turns the debt into money (monetisation).

Mobile point of sale (m-POS)
A smartphone, tablet or dedicated wireless device that performs the functions of a cash register or electronic point of sale.

Mobile wallet
It is a payment service which enables users to receive and send money via mobile devices. Mobile wallets are also known as mobile money or a mobile money transfer.

Mail Order / Telephone Order
The purchase of goods or services, with the purchase order issued by phone or in writing by fax or using an order card.

M-Pesa
A mobile payments system based on accounts held by a mobile operator and accessible from subscribers’ mobile phones. The conversion of cash into electronic value (and vice versa) happens at retail stores (or agents). All transactions are authorised and recorded in real-time using secure SMS.

Multichannel
Multichannel means having a presence on more than one channel or platform. For example, if a merchant is marketing products on the proprietary website, in person, and via catalogues, then the merchant is conducting multi-channel marketing.

MyBank
MyBank is an e-authorisation solution which enables safe digital payments and identity authentication through a consumer’s own online banking portal or mobile application.

N
NACHA

National Retail Federation (NRF)
The world’s largest retail trade association, with membership that encompasses all retail formats and distribution channels, including department, specialty, discount, catalogue, Internet, and independent stores as well as the industry’s key trading partners of retail goods and services.
NFC
Near Field Communication (NFC) is a short-range wireless connectivity standard (Ecma-340, ISO/IEC 18092) that uses magnetic field induction to enable communication between devices when they’re touched together, or brought within a few centimeters of each other. Jointly developed by Philips and Sony, the standard specifies a way for the devices to establish a peer-to-peer (P2P) network to exchange data. After the P2P network has been configured, another wireless communication technology, such as Bluetooth or Wi-Fi, can be used for longer range communication or for transferring larger amounts of data.

OBeP scheme
A type of payments network, developed by the local or international banking industry – in conjunction with technology providers – designed to facilitate online bank transfers or direct debits. There are three types of OBeP schemes. Mono-Bank OBeP scheme entails that a seller or Payment Service Provider has a separate connection to each participating financial institution. Multi-Bank OBeP scheme entails that a seller or Payment Service Provider has one single connection to the OBeP network in order to accept payment from any participating financial institution (e.g. the iDEAL scheme in the Netherlands and Bankaxess in Norway).

Overlay OBeP scheme is similar to the Multi-Bank or Mono-Bank scheme however there is third party (the overlay provider) who sits between the payment network and the consumer. The overlay provider requires the consumer to share their online banking credentials with them in order to have access to the consumer’s bank account and to initiate the credit transfer to the merchant. (e.g. SOFORTbanking or SOFORTüberweisung).

Omnichannel
Omnichannel retailing is concentrated more on a seamless approach to the consumer experience through all available shopping channels, such as mobile internet devices, computers, brick-and-mortar, television, radio, direct mail or catalogue. Retailers are meeting the new customer demands by deploying specialised supply chain strategy software. Retailers using an omnichannel approach will track customers across all channels, not just one or two. In the brick-and-mortar channel, digitally-savvy consumers are entering stores already well-informed about a product’s features and prices and expect store employees to know more than they do.

Online payment
In the context of Internet commerce, it is a financial transaction between a buyer and a seller resulting from an Internet purchase where the buyer has selected its payment method online goods and services are purchased over the Internet (whether through a browser or in-app).

Online payment method
It refers to the ways shoppers can pay for their purchases over the Internet. Online payment methods rely on one of the five core payment instruments used to ensure the money flows from buyer to seller: card payments, bank transfer payments, direct debit payments, cash payments, cryptocurrency payments.

Online shopping (online retailing)
A form of electronic commerce which enables consumers to buy goods or services from a seller over the internet without an intermediary service. An online shop, e-shop, e-store, internet shop, webshop, webstore, online store, or virtual store evokes the physical analogy of buying products or services at a bricks-and-mortar retailer or shopping centre. The process is called business-to-consumer (B2C) online shopping.

Pay-as-You-Go
An unbanked, credit - poor, or noncredit customer who mostly deals with cash. These consumers are targets for a prepaid card.

Payee
Party (beneficiary) to whom a bill of exchange (such as a check or draft) is made payable.
Glossary

Payer
A person or a party that makes a payment for products or services received to another person or party.

Payment brand
A payment brand refers to a consumer-facing brand that is directly linked to one of the five meta payment instruments, for example MasterCard (card payments), ELV (direct debit payments) and Bitcoin (crypto-currency payments). When a shopper selects a payment brand, they instantly select one of the five payment instruments to complete the online purchase.

Payment flow
The clockwise transfer of money in payment for the counter-clockwise physical flow of goods and services. The payment flow is the monetary payment for goods and services received by the household sector from the business sector through product markets and the monetary payment for resource services obtained by the business sector from the household sector through factor markets.

Payment Gateway
A mix of hardware and software which gives merchants the ability to perform authorizations from a website over the internet. It’s the link between a merchant website and the processor.

Payment instrument
Payment instruments are an essential part of payment systems. Payment instruments are used to ensure the money flows from buyer to seller.
- Card payments
- Bank transfer payments
- Direct debit payments
- Cash payments
- Crypto-currency payments
- Direct Carrier payments

Payment page (checkout)
A Web-based payment page for simple and secure acceptance of various payment methods. End customers input their data into a website hosted by Wirecard to make online payments. The Payment Page enables merchants to accept credit cards and other national and international means of payment such as direct debits, giropay, iDEAL, eps, paybox, paysafecard and others in a fast, secure manner with PCI compliance.

Payment Service Provider (PSP)
Payment Service Providers (PSPs) are service providers that enable web- and offline transactions for merchants. PSPs aggregate various payment methods from various acquirers into one contract and one technical interface for merchants.

Peer-to-peer payments
An online technology that allows customers to transfer funds from their bank account or credit card to another individual’s account via the Internet or a mobile phone.

Prepaid card
Stored-value card used to pay for goods and services, mainly as an alternative to cash. Can be open loop or closed loop. Prepaid cards are sometime disposable after the stored value is exhausted or reloaded.

Processing fees
The processing cost does only relate to the processing of data originating from the merchant’s website to the applicable financial institution or acquirer after each transaction. Most often they charge a fixed fee per processed transaction between EUR 0.10 and EUR 1.00. Depending on the Payment Service Provider they could charge for approved transactions, declined transactions, authorization or transaction reversals and refunds, for example.
Provisioning
Storing card data in NFC-enabled smartphones in order to be able to make payments using the mobile phone. The card data is stored on the SIM card or in a secure area of the smartphone.

Point of sale (POS)
Point of sale (POS) or checkout is the location where a transaction occurs. A “checkout” refers to a POS terminal or more generally to the hardware and software used for checkouts, the equivalent of an electronic cash register.

PSD (payment service directive)
The Directive on Payment Services (PSD) provides the legal foundation for the creation of an EU-wide single market for payments. The PSD aims at establishing a modern and comprehensive set of rules applicable to all payment services in the European Union. The target is to make cross-border payments as easy, efficient and secure as ‘national’ payments within a Member State. The PSD also seeks to improve competition by opening up payment markets to new entrants, thus fostering greater efficiency and cost-reduction. At the same time the Directive provides the necessary legal platform for the Single Euro Payments Area (SEPA).

PSD2
The European Commission adopted a proposal for a revised Directive 2007/64/EC on Payment Services (‘the PSD2’) on the 24th July 2013. The main high-level objectives of the revision are to promote better integration, more innovation and more competition in the market for payment services within the EU.

QR codes
A QR code (quick response code) is a type of 2D bar code that is used to provide easy access to information through a smartphone. There are static QR codes, which are used to disseminate information to the general public and dynamic codes, which offer more functionality, such as editing the code at any time and targeting a specific individual for personalised marketing.

Receipt
A hard copy of the transaction, given to the consumer. Also called sales draft receipt.

Reconciliation
A message generated by an acquirer or an issuer, an originator or a receiver, or a terminal and a processor of an electronic transaction that advises the receiver of settlement information regarding transactions processed between the sender and the receiver.

Recurring Payments
The payments whereby the merchant is able to charge the customer’s credit card without involvement of the cardholder or the need for the cardholder to re-enter credit card details when checking out. Recurring payments can service two business purposes: to facilitate for recurring billings (e.g. subscription based payments and utility bill payments) and to simplify checkouts for returning customers.

Returns
A sales return is merchandise sent back by a buyer to the seller, usually for one of the following reasons: Excess quantity shipped. Excess quantity ordered. Defective goods. Goods shipped too late.

Risk Management
The process concerned with the identification, measurement, control, and minimization of security risks in information systems and payment systems to a level commensurate with the value of the assets protected. Good risk management in the merchant program requires meeting the challenges of reducing the exposure to risk and responding quickly when risk arises. Monitoring merchant activity with preset parameters allows the transactions to be rejected for examination before potentially incurring a loss.
Glossary

S

SCT Scheme
The SCT scheme is an inter-bank payment scheme defining a common set of rules and standard procedures for credit transfers in euro.

Single Euro Payments Area (SEPA)
This is the vision, directive and goal of the European Commission which means that citizens and companies within the European Union have to be able to pay with a single set of payment instruments. This set is the combination of a bank account and instruments like money transfer, direct debit and cards. SEPA signifies the end of international payments within Europe.

SEPA payment schemes
Simplified, the term scheme refers to a set of common rules and standards. In Europe this is known as the SEPA payment scheme. The SEPA Credit Transfer (SCT) and SEPA Direct Debit (SDD) Rulebooks contain sets of rules and technical standards for the execution of SEPA payment transactions that have to be followed by adhering payment service providers. These rulebooks can be regarded as instruction manuals which provide a common understanding on how to move funds from account A to account B within SEPA.

Settlement
The process of transferring funds for sales and credits between acquirer and issuers, including the final debiting of a cardholder’s account and the crediting of a merchant’s account.

Settlement Bank
A bank, including correspondent or intermediary banks, that is authorized to execute settlement of interchange on behalf of the member or the member’s bank.

Social platforms
Web-based technologies that enable the development, deployment and management of social media solutions and services. They provide the ability to create social media websites and services with complete social media network functionality.

SME
Small and medium-sized enterprises (SMEs) are non-subsidiary, independent firms which employ less than a given number of employees. This number varies across countries. The most frequent upper limit designating an SME is 250 employees, as in the European Union.

Supply chain
The network created amongst different companies producing, handling and/or distributing a specific product. Specifically, the supply chain encompasses the steps it takes to get a good or service from the supplier to the customer.

Surcharge
In debit card usage, additional fees assessed to cardholders by merchants and ATM providers. Merchants are sometimes charged additional fees for nonqualified interchange transactions.

Tokenization
The process of substituting a sensitive data with an easily reversible benign substitute. In the payment card industry, tokenization is one means of protecting sensitive cardholder PII in order to comply with industry standards and government regulations. The technology is meant to prevent the theft of the credit card information in storage.

Transaction
An act between a merchant and a cardholder that results in a paper or an electronic representation of the cardholder’s promise to pay for goods or services received from the act.

Transaction number
A unique password issued by the card-issuing bank, which is used in addition to the PIN as extra security to confirm a transaction in internet banking.
Glossary

Turnover
Sales volume net of all discounts and sales taxes registered on a yearly basis.

Unbanked
The word unbanked is an umbrella term used to describe diverse groups of individuals who do not use banks or credit unions for their financial transactions.

Underbanked
Consumers either having a checking or savings account, but also relying on alternative financial services.

User
Payment system users comprise both participants and their customers for payment services. See also customer, direct participant, direct participant/member, indirect participant/member, participant/member.

Value chain
A value chain is the whole series of activities that create and build value at every step. The total value delivered by the company is the sum total of the value built up all throughout the company. Michael Porter developed this concept in his 1980 book 'Competitive Advantage'.

VAT
Consumption tax added to a product’s sales price. It represents a tax on the “value added” to the product throughout its production process.

Velocity check
A frequency check, in which payment transactions are reviewed for repeating patterns within a defined (short) period. The check can be performed based on various data for a payment transaction (e.g., if a certain pattern repeats during a period, or even appears in clusters).

Virtual assistant
A person who helps someone else - usually a business owner or small business - with a variety of tasks from a remote location.

Virtual store
A retail presence on the Web. The virtual store is an online store that displays merchandise and an order form. A live text chat may be offered, in which the customer interacts in real time with a company representative.

Virtual terminal
Internet-assisted user interface for payment acceptance (including via MOTO), which is used, for example, in call centres. Allows direct payment acceptance without signature by the paying party. Risk management checks are performed in the same way as for online payments.

White label
White label refers to a product or service that is purchased by a reseller who rebrands the product or service to give the impression that the new owner created it. White label products are often produced via mass production.
The Paypers - Insights into payments

The Paypers (www.thepayers.com) is the leading independent source of news and analyses for professionals in the global payment industry. Our products are created by payment professionals and cover all significant developments in financial transactions, with a special focus on online payments, online banking, mobile payments, e-invoicing, e-identity and SEPA. Our portfolio includes headlines, newsletters, company profiles, publications, events, jobs, buyer’s guides and advertising via multiple media channels and social networks.

“Insights in payments – this is what the Paypers is all about. On the one hand readers get deep insight into the payment industry and on the other hand for companies The Paypers offers a great advertising portfolio. For example, with our DIMOCO hub we handle mobile payment transactions in the Central- and Eastern European countries. That means that we are a niche player and the Paypers is an ideal partner for us”

Margit Anglmaier - Vice President Corporate Communications - DIMOCO

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How to Integrate Payment Methods at Checkout
Imagine you run a shop on one of Europe’s busiest high streets. You have spent a lot of money on your fixtures and fittings, not to mention marketing. And your business has really taken off. Lines of locals and tourists with armfuls of merchandise wait their turn to pay. But before they get to the cash desk, they see a small sign: ‘We only accept payment by Visa or MasterCard!’ In other words, you can forget about paying with cash, cheque, debit card or with a voucher, and the tourists will have to put away their American Express or China UnionPay credit cards.

This slightly exaggerated example can easily be translated into the world of ecommerce. By excluding certain payment options you are bound to lose sales because some customers will have no choice but to leave without purchasing what they wanted. They will simply go elsewhere – and probably will not bother coming back to you. In a 2014 survey conducted by the PPRO Group, almost 50% of purchasers said they were likely to end a transaction if their preferred payment option was not available. You might not think that any merchant would damage their own business in this way. But many online merchants – whether they are retailers, travel companies or service providers – do exactly that.

The main attraction of international ecommerce to businesses is, of course, the opportunity it offers to enlarge the target audience, thus increasing revenue and profit. Numerous studies support the potential of international ecommerce: OC&C Strategy Consultants estimate that in the world’s six largest ecommerce markets cross-border trade will increase more than five-fold by 2020, from around USD 25 billion in 2013 to USD 130 billion in 2020 alone. There are estimated to be several hundred APMs, including real-time bank transfers, e-wallets, mobile wallets, direct debits, prepaid cards, electronic cash payments, local card schemes and payout services, which vary in popularity according to region and country. An understanding of local preferences is essential for successful business, and offering locally appropriate payment options enables merchants to maximise conversion rates.

Identifying the best payment methods for particular markets and target groups is costly, time-consuming and requires a certain level of experience. That is why online merchants usually turn to payment service providers (PSPs). Ideally, PSPs should not only provide a wide-ranging portfolio of local and international payment methods, but also offer valuable experience in those markets. Looking beyond technical on-boarding of merchants and transaction performance, factors such as experience, a large selection of payment methods and a comprehensive portfolio of value-added services generally outweigh even the most attractive fee structures. Online merchants who want to expand their business internationally would therefore be well advised to look closely at these factors when searching for a new PSP partner. Ultimately, payment is a defining factor when it comes to increasing reach and conversion rates.

But even when access to all the relevant payment methods is secured via a well-connected PSP, the merchants’ funds are still a long way from arriving in their bank accounts. Most PSPs are not licenced to handle money on behalf of their customers. In this case merchants have to collect their funds themselves, which requires a significant effort for each and every payment method they want to offer: negotiating different contracts in different countries and languages, considering different laws and regulations, opening and maintaining foreign bank accounts, obtaining local tax numbers and creating local liabilities, going through numerous KYCs – and that is just for the initial setup. On an ongoing basis, they would have to collect and track all payments individually and probably pay their banks a transaction fee for each one of them. Additionally, they have to create all the reports which they need to consolidate everything across all payment methods. If they can afford a bigger finance team, they could try to reconcile all incoming payments against their pending transactions, dispute chargebacks and find ways to provide refunds when required.
This is where PPRO steps in. Acting as a payment hub and acquirer between the payment scheme and the PSP, its services will make go-to-market extremely fast and ongoing management a breeze. With one contract and one integration, PSPs can give their merchants access to a vast range of alternative payment methods worldwide with value such as, for example, refund capabilities, being added to those payment methods. PPRO is more than a payments processor as it holds a licence to collect payments for PSPs and their merchants and therefore can also provide them with end-to-end reconciliation. The collection results in just one consolidated settlement to an existing bank account of the PSP or its merchants, no matter where they are, accompanied by a comprehensive report detailing all information needed. Additional services range from a single on-boarding and KYC of new merchants to sophisticated risk management and thus cover the full e-payment value chain. New payment methods are continuously being added throughout the world and are automatically available through a simple API without any further integration work. It’s important to note that PPRO does not provide its services to merchants directly. It is a pure wholesaler, white-labelling services exclusively to PSPs and other merchant aggregators such as acquirers, processors or marketplaces.

Hence, any PSP-like business wanting to offer their merchants a one-stop-shop solution to extend their reach into international markets and increase their ecommerce revenue should take a close look at PPRO’s offer.

About Ralf Ohlhausen: Ralf Ohlhausen, MSc in mathematics and Master of Telecommunications Business, has over 25 years’ experience in ecommerce, financial services, mobile telecommunications and IT. At PPRO, Ralf is responsible for increasing PPRO’s global reach, focusing on the addition of new payment choices to the company’s portfolio.

About PPRO Group: Cross-border e-payment specialist since 2006, PPRO Group (PPRO) removes the complexity of international ecommerce payments by acquiring, collecting and processing a range of alternative payments methods for Payment Service Providers under one contract, through one platform and one integration. PPRO supports international payment in over 100 countries.

www.ppro.com
Every merchant engaged in ecommerce wants a high checkout conversion rate because it signifies additional revenue without increased investment in areas such as product development, marketing and sales. There are many ways to achieve a high conversion rate, such as utilising embeddable payment forms, offering online shops in local languages and currencies, leveraging advanced analytics, etc. But perhaps the most important is offering the right mix of payment methods.

Today there are hundreds of payment methods available to shoppers in ecommerce. Credit cards were originally the most common and they do still dominate the large US and UK markets. Still, the growing popularity and functionality of alternative payment methods (APMs) has changed the global picture. APMs, defined as any non-card payment method, overtook cards as the most common global payment method in 2015 and are expected to comprise nearly 55% of global ecommerce payments by 2019. There are more than 200 APMs globally, including bank transfers, direct debit, digital wallets, cash on delivery, e-invoices, digital currencies, and a variety of locally-preferred payment options.

There are several reasons for the shift from cards to APMs. First, cards’ ecommerce stranglehold was based more upon availability than usability. As ecommerce gathered momentum, cards enabled shoppers to move online with a familiar payment method even if it lacked convenience and security. Now, as the number of APMs has grown and shoppers have gained an appreciation of their benefits, the switch is on. Second, mobile commerce, where APMs are easier to use than cards, has exploded as a proportion of overall ecommerce. Finally, even when cards are used in ecommerce they often become “dematerialised,” which means they are used within the confines of a digital wallet, an app or another APM. As a result, cards are increasingly acting less like cards and more like APMs, from a shopper’s perspective at least.

When considering the proper payment method mix to achieve high checkout conversion, merchants must keep in mind that every country, and often each industry, has unique preferences, often featuring entrenched local providers. Commonly cited examples include iDEAL, a bank transfer method used for 55% of all online purchases in the Netherlands, e-invoice, a post-pay option common in Germany, or Alipay, the dominant digital wallet in China.

Merchants must know their target market and offer the relevant payment methods. Most shoppers have a preferred method, plus others they will use, while the rest are useless to them. A globally uniform strategy simply will not work. Without payment options tailored for specific needs, conversion rates are doomed to be low. Getting the right mix of payment methods is crucial: it has been shown that offering the top three payment methods in a country, rather than only the top one, improves conversion rates by 30%. Yet the growing diversity of APMs means getting the mix correct is more challenging than ever. Fortunately, there are a number of steps merchants can take to identify and implement the correct payment method mix.

First, a merchant needs to look closely at the country, industry and typical device used for purchases and cater their offering accordingly. A merchant’s payment provider, if suitably experienced, should be able to provide valuable guidance. Second, merchants should always offer at least the top three payment methods. Most shoppers will use at least one of them. Third, merchants must continually analyse the conversion rate and usage of each payment method and be ready to adjust. These steps are more easily implemented through a payment provider that offers an extensive global payment network, enables rapid payment method switches and provides access to comprehensive payment data for advanced analytics.
An option that allows for a dynamic payment method mix is Active Payment Method Selection, a tool that uses a shopper's shipping address, device information and other data to automatically determine and offer the payment methods most appropriate for the shopper as they reach the payment page. The result is higher conversion rates because the appropriate payment methods are offered, plus better security, because high risk shoppers are only offered robust payment methods.

The correct payment mix is essential for a high conversion rate because it is an important part of a seamless and frictionless customer journey. Although the growth of diverse alternative payment methods and the decreasing market share of cards have complicated the situation for merchants, high conversion rates are possible by utilising the resources offered by comprehensive payment providers.

About Markus Rinderer: Markus Rinderer serves as Senior Vice President at ACI Worldwide, driving the development of the company’s omnichannel merchant retail strategy. Previously, he served as CEO and founder of PAY.ON, an ecommerce payment gateway services provider acquired by ACI in 2015.

About ACI Worldwide: ACI Worldwide powers electronic payments for more than 5,100 organizations globally. More than 1,000 of the largest financial institutions and intermediaries plus thousands of global merchants execute USD 14 trillion each day in payments through ACI. Through a comprehensive suite of software and SaaS-based solutions, ACI delivers real-time, any-to-any payments capabilities.

www.aciworldwide.com
Many factors contribute to the explosion of cross-border trade, such as the phenomenon of globalisation, the tools of mobility, the customers' needs of immediacy and ease of travel. E-mERCHANTS, marketplaces, and payment methods can benefit from these trends if they are able to adapt their organisations to international business. In order to achieve this, organisations need to understand local online shopping behaviour of consumers and the local regulatory framework.

From few payment methods to an exponential portfolio

Before 2010, consumers usually used cash or bank cards to pay for their purchases. However, since 2010 more and more payment methods have been developed in order to provide more secure and easy to use services functioning with smartphones and wearable devices, working seamless across channels. These solutions also cater to the evolution of customers' payment needs.

Today, consumers want to buy products anywhere in the world, 24/7, with their preferred device and payment method in a personalised and responsive design environment. On their part, merchants reorganise their companies, processes, strategies and join marketplaces to sell in more countries, to more customers with less impact on their organisations and IT systems. A marketplace offers a great way to speed up cross-border sales because of their reach and knowledge of the local consumer’s habits.

It is no secret that marketplaces have to deploy a lot of effort to be compliant with regulations, as well as to offer preferred payment methods. These issues have brought along new problems for all parties of the business chain.

The consequences of internationalisation for e-merchants and marketplaces are huge. To develop their brands, they have to adapt their business to languages, compliances, currencies, cultures, cross-border payment methods and so on. They also have to integrate new payment methods, which is not an easy thing; merchants, marketplaces and PSPs too have to schedule the integration in their plans, work on development and parameter their IT and information systems, to name a few.

Furthermore, marketplaces need to understand the real value of each payment method. Why and where do consumers use e-wallets? Which one is more useful? For which vertical? Which prepaid payment method is the most relevant for a specific geography? What are their integration protocols? How to make them consistent with the expectations of financial services?

Energise payments in connecting the world

Processing has become a commodity and offering payment solutions is not just about simple connectivity any more. It’s about ‘extra value added’ to meet international and marketplace development. A payment offering must combine processing and added value service like reconciliation, fund collecting, contractual aggregation of international payments, marketplace features, connection to local payment institution players, and remain flexible by quickly integrating payment, mixing payment with legacy loyalty programmes and offer an on-demand programme management approach. This is exactly the Limonetik value proposition.

Limonetik was born with a vision to aggregate payment methods, simplify and accelerate their deployment on the internet. This was just the first step of the actor of fintech! As an innovative company, Limonetik always looks into the future while remaining constantly attentive to the market and customer usage habits.
Today, affirming its market leadership in the overall management of international and local means of payment, the company offers an end-to-end solution from their connection to merchant sites and PSPs, from collection, reconciliation of financial flows and payout and dispatch, to responsive design and personalised payment pages. Limonetik currently connects more than three new payment methods per month to its platform. This was made possible through the interoperability of Limonetik solution with Asian, Russian or Latin American means of payment, large ecommerce websites, marketplaces, and PSPs.

Currently, the company supports international growth in multicurrencies of several of its customers and strengthens its presence in various sectors like travel with the signing of a major contract with Universal Air Travel Plan. Through this partnership, 260 airlines access the Limonetik payment means portfolio via processing mode or full service.

About Christophe Bourbier: Christophe is a born entrepreneur and an executive with over 15 years of experience in competitive and disruptive strategy. Competitor at heart, captivated by international affairs, Christophe, before he founded Limonetik in 2007, had created different companies in High Tech and Communications.

About Limonetik: As an online enriched payment platform (PaaS), Limonetik provides a unique ‘one stop’ shopping payment solution that connects international payment methods to marketplaces and merchants directly or through its PSPs. Limonetik delivers advanced services from collection and settlement management to reconciliation. Limonetik is the guarantee of regulation compliance.
Beate Uhse

Omnichannel is all about putting the consumer in the limelights of the shopping experience

There has been a lot of debate around PSD2, Instant Payments and the fast changes brought about by API technologies. How could all these improve the payment experience for merchants?

In terms of payments, merchants look at reach, ease of use, conversion and costs. The bank APIs should be open to increase reach. However, the Open Bank APIs should be standardised at EU level to avoid fragmentation and accelerate innovation.

It should not be by creating extra regulation or rulebooks, but by making sure that the upcoming rulebooks aim for standardisation from the onset. Here are some examples of already upcoming platform fragmentation:

- Open Transaction Alliance (OTA) > branch-initiative payment experts
- Controlled Access to Payment Services (CAPS) > Equens, Vocalink
- Digital Customer Services Interfaces (DCSI) > Euro Banking Association

The standardisation should be in the form of a framework that allows for those APIs to communicate easily with each other, and also allows easy collaboration with the already existing bank-based payment methods (such as Sofort, Trustly, MyBank).

Furthermore, the API Service layer could lead to lower indirect costs for merchants because it replaces / shields ageing banking payment (debit) systems, leading to higher reliability.

Account Servicing (AS) PSPs could lower costs further by reducing fraud through new services (because they could check the customer and their financial position). AS PSPs could also increase checkout conversion through new data propositions. Multi-banked customers, for example, aggregate customer data over several relations (banks / credit card providers) leading to better credit scoring.

Finally, Payment Initiation (PI) service providers will enable merchants with a more customer centric approach. Instead of giving the merchant your account details (through TPPs), you just give it permission to re-route you to your internet banking website where you complete the purchase. It places the customer more in control by changing the transaction from ‘pull’ (the retailer pulls the money from the account) to push (you push it to the merchant).

Which value-added services can incentivise merchants to drive more transactions over a particular channel?

My thesis here is that the payment methods (especially alternative payments) suffer from functionality bloat / overload. They increase the number of so called value-added services again and again (loyalty, shopping, deals, personal info, maps, etc). However, it is getting too much. My customers need to go directly to payment, without distraction / x-sell at check-out.

Innovation needs to serve simplification instead of diversification! Leonardo da Vinci said that Simplicity is the ultimate Sophistication, and that is true. So, my call to all payment providers is to stick to your trade. Less is more!

What are the strategic challenges that merchants face when choosing and implementing alternative payments?

I have in mind two challenges: reach and ease of use. There has been an enormous rise in electronic Alternative Payment methods (eAPs). However, that is a hassle for merchants as the eAP market gets too fragmented. Merchants have to integrate, get to know and operate each one of them. But, individually, they provide too little reach, often making all the work not worthwhile, especially for SMEs.
Big reach means ease of use for merchants as we can use them in multiple markets. European payment methods don’t have enough footprint, so I welcome the rise of global giants such as PayPal, Apple, Alipay. And I am even prepared to pay bit more for ease of use and big reach.

Furthermore, the eAP market, certainly in EU, is only mature at a national level, not at a European level. As said, it is too fragmented, making it difficult for cross-border trade and merchants in particular. It stands aside of the fact that this plays again into the cards of the global giants mentioned before. Therefore, one of things internet merchants consider, and would like to see more, is seamless and instant integration, as well as interoperability (ideally full harmonisation) of electronic payment methods, e-mandates in particular.

Can you provide some best practices for merchants who want to implement a multichannel strategy in order to keep customers onboard?

I will answer this question on multichannel strategies to keep customers on board with two relevant examples, De Bijenkorf in the Netherlands and Hunkemoller. De Bijenkorf is a famous Dutch warehouse. The core of their customer strategy is the Bijenkorf Loyalty Card because they can track customer behaviour across channels and hence also provide the service cross-channels based on customer preferences. Next to that, they successfully used technology in their omnichannel customer strategy. For example, they use Tablet Assisted Sales (TAS), iBeacons and virtual fitting room in their shop.

Hunkemoller is a world-famous lingerie retailer. Having a very strong loyalty card is also key to their omnichannel strategy as well. But here, the differentiating and binding factor would be world-class brand marketing. As a customer you consistently experience the same Hunkemoller brand look and feel whether you shop on or offline. Furthermore, they successfully integrated their stores in their omnichannel service and delivery proposition. For example, 24% of their online business is through click-and-collect in store and 43% of returns are in store.)
From a retailing point of view, UAE’s SOUQ.com is among the most representative market players. This interview sheds light on some aspects of the company’s payments strategy and direction.

Cash payments are still dominant in the Middle East. What payment solutions is SOUQ.com using and considering for customers who are still not financially included or who are eager to pay only in cash?

Being the largest ecommerce platform in the region, we realise the importance of offering convenient and secure payment solutions to our consumers to cater to their demands. We provide a host of trusted payment methods which include Cash on Delivery (COD) for offline payments, and MasterCard, Visa, cashU, PayPal and bank transfers for online payments.

Indeed, cash is king for consumers in the Middle East, even if they are buying online, however we are seeing a shift towards credit card usage in the region. In order to further boost online payments, we have partnered with Visa and MasterCard to offer convenient payment options. By doing this, we are looking to alleviate barriers that prevent customers from using their credit card online, as well as continue to offer services such as Cash on Delivery (COD) that ensure customer expectations are not only met, but exceeded.

In accepting online payments on your marketplace, what are the top payment methods Middle East e-shoppers prefer for their purchases?

Cash on Delivery (COD) constitutes a major part of our online purchases. For consumers, it is one of the most convenient payment options, whereas we see it as an opportunity to build upon consumer trust. Depending on the market, the preference for COD payment method varies between 60% and 80%. Although due to the rise of ecommerce penetration and tech-savvy consumers in the region, we do believe that the COD percentage will come down as more consumers will get comfortable with online payments, specifically with regards to credit card usage.

However, some consumer segments would still choose COD as their preferred payment method and, as long as there is demand for it, SOUQ.com will cater to it.

Among all the Middle East countries you are present in, which are the ones most open to online payments and why do you think they do so?

According to recent industry reports, the Middle East is witnessing a rise in online payments with a 24% average growth across the region, while the UAE and the Kingdom of Saudi Arabia (KSA) are leading by 24% and 40%, respectively. There has been a rising trend across the region, where consumers are more willing to have their ecommerce transactions processed online, suggesting a substantial level of confidence in payment security and privacy. This can be illustrative of the fact that online consumers are becoming more sophisticated and demanding higher levels of service.

Is the Middle East region recommendable for e-retail and, if so, what are the key factors that new players should look at to tap in?

The Middle East region is one of the fastest growing ecommerce markets globally and is expected to reach USD 20 billion in 2016. High Gross Domestic Product per capita, a rise in mobile penetration rates, a young and tech savvy population along with the ease of buying are some of the key drivers fueling this growth.

Mobile commerce has also been a huge growth driver in 2014 and 2015, both for SOUQ.com and its mobile app launch, and for the Middle East’s online market as a whole. M-commerce grew exponentially in 2015 and over 60% of our sales are driven by mobile shopping. The global mobile payment market is expected to reach USD 507 billion by 2017, a rise of 40%, which highlights the huge opportunity in m-commerce.

➔ Maintaining and establishing consumer trust is the biggest priority for us.
Over the past ten years, SOUQ.com has paved the way for e-commerce to thrive and for local and international businesses to flourish in this region. Today, we feature over 1.5 million products across 31 categories (such as consumer electronics, fashion, health and beauty, household goods, baby clothes, watches and perfumes) and we attract over 45 million visits per month. The support for entrepreneurship in the region has greatly increased over the past few years with many SMEs ‘localizing’ international ideas and proposing new strategies. While these entrepreneurs are tapping into feasible markets such as UAE and Jordan, it is important to note that the big opportunities also exist in markets such as KSA and Egypt. As the funding ecosystem in the MENA region is still developing, it is up to the entrepreneurs to believe in their ideas and have a solid, strategic business plan in place to raise capital.

Could you outline the most common issues that you face at the checkout when consumers are in the purchase process but the order is not finalised (cart abandonment)?

There are several common reasons why at times customers add the products to the cart, but do not proceed with the payment process. These include: shipping charges discouraging them to make a purchase, customers entering incorrect details, as well as the number of days it would take to deliver the products at the mentioned address. Also, sometimes the orders are finalized, but the address is incomplete and we have to call the customers to get the complete address.
Getting Out of the Way: The Characteristics of Retail Payments in the Future

Whilst attending Money 20/20 Europe in Copenhagen earlier in 2016, I attended an interesting debate during one of the panel discussions. You often hear about payment being a ‘utility’, something that has to be done, but something to be marginalised or pushed to the background as much as possible. Indeed, the discussion was focused on how to achieve a ‘frictionless’ checkout experience for consumers in the e- and m-commerce environments which, on the face of it, seems like a payments nirvana. However, the question was raised on whether that kind of experience is a) truly achievable, and b) even desirable, for consumers or for retailers. We are actively engaged in trying to look to the future of commerce, and Visa’s place in it, as well as being mindful of the needs of all constituents: banks, retailers and consumers. Applying that lens to the Copenhagen debate leads us to a view that context is a vital factor on how visible payments, and associated actions like authentication, need to be considered in the process. Let’s examine a few scenarios from the broad spectrum of retail and payment experiences, and try to map a kind of ‘friction scale’ against some examples.

One clear trend that we can see, particularly with app-centric, service-oriented businesses such as Uber, is the separation of the payment from the experience. Your card is on file and pre-authenticated, so when it comes to the act of taking a cab ride, the traditional pain point of paying your fare with the driver is replaced with a lasting impression of convenience. Similarly, what about paying your bill at the end of a meal, or settling your bar tab in a busy pub? We have tackled both scenarios with proof of concepts where bills are sent to and settled via an app, without the need to queue, grab the waiter’s attention, or quibble with friends about who ate or drank what! For these types of low-risk, speed-sensitive transactions, it is desirable both to retailers and to consumers to get payment ‘out of the way’ as far as possible.

Towards the other end of the spectrum, in some instances there are good reasons for building appropriate levels of friction to checkout journeys, from both the consumer and retail perspective. At a basic level, if consumers are executing a high-value, ‘one-off’ purchase online, maybe at a site they have not used before, then it is comforting to be shown what you are buying, how much you are spending, and maybe also that your bank makes sure it is actually you who is carrying out the transaction.

Similarly, retailers are increasingly exploring the value of making shopping more ‘experiential’, lifting it from a flat website or app into a more absorbing realm. Technologies such as augmented and virtual reality provide the opportunity to do this, as we have recently showcased in conjunction with the fashion designer Henry Holland and Blippar, the augmented reality app. The challenge was not to make payment disappear, but rather to integrate it more seamlessly with the end-to end experience so that you point your phone camera at a t-shirt you like to be recognised as an item for sale. Then you select your size and pay for it, without being pushed to another checkout process in another location.

In both cases, context is a key factor linked to the friction associated with payment. This equally holds true when it comes to the authentication element. Here, a perfect storm of the increasing usage of mobile devices for commerce and the growing hardware capabilities of the devices themselves means that it is much less of a trade-off between security and convenience, where the implication is that you can not have both at the same time, but rather an opportunity to be more nuanced and selective on how and when users are authenticated, without degrading security levels.

It also spans channels. Similarly to using the device capabilities in app-based or mobile browser checkouts, you can be shopping on your laptop and performing ‘out-of-band’ authentication using your mobile device.
One further dimension to add to the mix is the choice between ‘active’ (for example using a fingerprint sensor) or ‘passive’ (for example behavioural biometrics, broadly speaking how you physically interact with your mobile device) authentication. With these options available, it becomes easy to see how matching the appropriate layer to the context of the transaction becomes a more realistic option for future retail journeys, and a risk-based approach becomes key to keeping all the constituents happy. Consumers get a better experience more suited to how and where they want to shop. Retailers, in turn, benefit by providing a ‘sticky’ experience that boosts conversion at checkout and banks are able to apply appropriate levels of security to protect themselves and their customers. So, what does the future of payment in retail look like? In my view, as the title suggests, it is a case of ensuring that payment is ‘out of the way’ when appropriate, but not necessarily making it disappear altogether.

About Mike Philpotts: Mike is Innovation Partner at Visa Collab, Visa’s European innovation hub, focusing on emerging developments and technologies in the fields of identity and authentication, and how these two areas can be simplified for consumers while maintaining the trust and security standards of Visa brand.

About Visa Europe Collab: Operating out of London’s Tech City, Tel Aviv, and Berlin, Visa Europe Collab works with an international community of banks, startups and innovators to co-create new products and services for the financial industry and its customers.

www.visaeuropecollab.com
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France

The Evolution of the French Payments Landscape

In October 2015, France adopted a national payment strategy designed to speed up the innovation process of developing payment methods and to encourage competitiveness in the payments industry.

The implementation of the national payment strategy will help France as it strives to meet users’ needs, particularly in terms of increasing card acceptance for low value payments. A key focus to achieving this is through the development of contactless payments and other cutting-edge methods of payment (i.e. mobile payments or those made through connected devices).

Are cards the French payment choice of the future?
The number of card transactions in France hit 9.5 billion in 2014, and this is increasing by more than 5% every year. Subsequently, nearly half (49.8%) of France’s non-cash payments are now carried out by card, which is 3.8% more than the average across the European Union (EU). With 18% of all EU transactions being carried out in France, the country has the potential to be the leader in card payment innovation across Europe.

The French currently use cards for both face-to-face and internet payments. Initiatives under the national payment strategy such as the development of contactless low value payments is likely to boost the use of cards even further.

Evolving traditional payment methods
In order to successfully speed up the development of innovative payment methods in France, it is crucial to reduce the use of cheques, which the country is known to favour. Cheque transactions currently represent 13% of the total volume of non-cash payments in France and make up over two thirds (68%) of cheques issued in the EU as a whole. The national payment strategy will offer an alternative by enhancing credit transfers for users within SEPA by making them easier and faster to carry out.
The process has already begun. The number of cheque transactions in France is decreasing year-on-year (with a decrease of 5% since 2015). This reduction is likely to accelerate because of the promotion of credit transfers and the development of person-to-person payment solutions, which are currently being tested on the market.

In fact, credit transfers are up 5% since 2015, now making up 18% of the total volume of non-cash payments in France. This is reflected in the switch to more digital methods of payments across the EU, credit transfers now making up 26.2% of the total volume of non-cash payments.

**Encouraging innovation in payments across Europe**

As European user requirements and behaviours continue to change, the payment landscapes of countries such as France will need to evolve. Introducing schemes such as the Single Euro Payments Area (SEPA) Instant Credit Transfer (SCT Inst) scheme in all countries under SEPA can help the payments industry become more competitive through the upgrading of payment systems and the adoption of approaches that encourage the development of new ideas.

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**About Javier Santamaría:** Javier, Chairman of EPC since June 2012 and member of its Plenary since creation in 2002, is Senior Vice President with Banco Santander, member of the Board of the Euro Banking Association, a Director of the SWIFT Board and Chairman of the Iberpay Board.

**About European Payments Council:** EPC represents payment service providers, supports and promotes European payments integration and development, notably the Single Euro Payments Area (SEPA). The EPC is committed to contribute to safe, reliable, efficient, convenient, economically balanced and sustainable payments, which meet the needs of payment service users and support the goals of competitiveness and innovation in an integrated European economy.

[www.europeanpaymentscouncil.eu](http://www.europeanpaymentscouncil.eu)
Germany

The Ecommerce Life Cycle

The online boom does not mean the end of stationary retail. In fact, there’s a natural tendency toward saturation already apparent in online retail.

Those active in retail want to know how much consumers will spend online and how much they will spend in brick-and-mortar stores. Retailers, developers and investors face costly decisions with long-term repercussions. Our analysis of the share of Germany’s online turnover by product group along with our prognosis up to 2025 give these groups an objective basis for making more informed long-term decisions.

GfK’s Geomarketing division has recently carried out a comprehensive analysis of the online turnover share of Germany’s major product groups. Here are some key findings from our study (which can be obtained as a PDF here):

- **Current online share:** In 2014, 8.5% of Germany’s entire retail turnover was transacted over the internet. If only non-food turnover is taken into account, Germany’s online retail in 2014 comprised 15.3% of all retail turnover.

- **Relative significance of turnover volume:** The importance of taking into account both the retail share of a product group and the online share within the product group is apparent in the case of grocery retail: at 1.2%, the online share of this segment is very low, but even so, it generated EUR 2.6 billion in online turnover in 2014. The pressure on stationary retail is still low. But online retail is already very important to sectors such as logistics service providers, who are directly impacted by online trade.

- **Socio-demographics:** Among other things, family type has an influence on a household’s affinity for online shopping: the greater the size of the household, the lower the share of online spending. And gender also plays a large role: for example, in single-person households, men spend twice as much online (17.8%) as women (8.8%).

- **Growth limits:** Online retail will eventually reach a natural growth limit, the timing of which will vary based on the market maturity of the product group in question. Saturation tendencies are already discernible among the product lines first to go online. For example, the online share for books and media grew only marginally from 2013 to 2014. In 2014, the technology and media segment grew by just under 8% compared to 20-30% annually in previous years. The reasons for this are innovations and adjustments by stationary retail, which is already successfully responding to intense competition with new concepts and omnichannel solutions.
• Prognosis for online retail share up to 2025: Even if, as predicted, growth rates slow due to saturation tendencies, we still anticipate an almost doubling of the online share of total retail turnover (i.e. food and non-food) to around 15% by 2025. Taking into account only the non-food segment (i.e. excluding groceries and drugstore items), we expect an eventual online share of around 25%.

• Future shift in product group weighting: While all branches will grow in absolute terms throughout the prognosis time frame (until 2025) and technology and media will eventually make up the lion’s share, the distribution of product line share will shift to the benefit of online newcomers in the grocery and drugstore, furniture and furnishings and garden and home improvement segments.

• Grocery and drugstore items will achieve the greatest share increases. This product line should double its share of total online turnover from the current 8% to 16%.

About Dr. Gerold Doplbauer: Dr. Gerold Doplbauer is product management team lead at GfK’s Geomarketing division and is responsible for steering geomarketing products and services throughout their life cycle. He joined GfK in 2013 and draws on ten years of experience in real estate analysis and consultancy. He holds a master’s in business administration and a doctorate in retailing and marketing from Vienna University.

About GfK: GfK is the trusted source of relevant market and consumer information that enables its clients to make smarter decisions. More than 13,000 market research experts combine their passion with GfK’s long-standing data science experience. This allows GfK to deliver vital global insights matched with local market intelligence from more than 100 countries. By using innovative technologies and data sciences, GfK turns big data into smart data, enabling its clients to improve their competitive edge and enrich consumers’ experiences and choices.

www.gfk.com
The payments landscape in the UK has changed significantly in the past 20 years. What used to be a predominantly credit market became a large debit market and what used to be bricks-and-mortar has developed into the largest European e- and m-commerce market. As payment products have evolved so have consumer payment preferences. NFC, or contactless, had a slow start and was met with a lot of scepticism from both retailers and consumers. Yet, contactless cards have been in use broadly for 10 years now, especially by the urban population in the UK and many other markets.

The traditional payment set up involved a retailer dealing with banks to get a merchant account and POS devices. Now retailers can get up and run with payment acceptance without setting a foot in a traditional bank, or having to purchase or rent any special equipment. There are mPOS options for smartphones and tablets, gateways for online payment connectivity and a broad range of payment suppliers across the payments value chain.

Fintech startups have turned the payments function into a background utility of the actual service (Uber, AirB&B, iTunes). Their quest is to make the payment as frictionless as possible so that there is no interruption in the customer journey, no needless drop off at the point of the ‘sale’ conversion. The banks’ role in the overall payments ecosystem has come under debate. Some argue that their role is purely to provide the ‘rails’ for the innovators to use, while some others argue that the inherent trust in banks means they still play a major customer facing role.

Payments preferences

The consumer, now placed firmly at the centre of the payments ecosystem, is becoming a lot more demanding and a lot less patient. Leaving one store to go to another because of the payment experience is not something easily done, whilst closing one browser and opening another one can take only seconds. Thus the main driver behind payment innovation has become an improved and enhanced customer experience.

Consumers are more aware of any additional fees and charges, and of their rights, as are the regulators. A good example is the recent legislation which clamped down on airline surcharging. Generally, consumers are feeling more confident about providing their payment details over the internet, but this varies across the segments and demographics significantly.

Global payment trends

Credit and debit cards were of course not designed with ecommerce in mind, and fraudsters have been quick to exploit the growth in online commerce and are coming up with new ways to defraud consumers and ultimately retailers and banks. Additionally, the payment schemes (such as Visa, MasterCard) have a complex way of viewing the retailer responsibilities and liabilities. Many countries have been looking into supporting the growth of online commerce with the use of dedicated payment methods. A good example is the iDEAL payment service in The Netherlands or Alipay in China. These so-called Alternative Payments are addressing the shortcomings of traditional payments and this makes them popular with retailers whilst their sleek customer interface can make them a preferred choice for consumers.

A number of sources says that over 50% of ecommerce transactions are likely to be made with alternative payment methods by 2020. This is, in part, driven by the Chinese market’s acceptance of Alipay wallet, but the European markets are showing a steady growth in similar payment means. The UK has a good infrastructure supporting traditional payments such as cards. However, with the emergence of Faster Payments and SEPA payments, many retailers are looking to improve their costs, fraud management and transaction liability by using the bank to bank payment methods. Some banks have already launched their bank to bank transfer payment products (e.g. Barclays Pingit and Pay by Bank App previously known as Zapp).
Leading technology firms are also launching new payment methods such as Apple Pay, Samsung Pay, and Android Pay. These are mobile wallets for payments in-app, at the store and eventually online. The consumer uptake has not been significant but, with new practical applications continuously coming on board, along with the vast marketing campaigns which the tech giants can afford, it is likely that consumer adoption will grow.

Payment providers are keeping up with the technology changes

So what does this mean for retailers? More upfront work but also new benefits in the long term. As the technology progresses, more new payment methods are launched and, as existing payment methods are improved and updated, there is a constant need for change in their payment acceptance systems. The majority of retailers will now use some type of Payment Service Provider (PSP) to cater for their broader and growing needs.

The PSPs themselves have evolved. The late ’90s saw the emergence of gateways providing online point of sale solutions for card acceptance. The noughties were met with full service platforms aggregating multiple payment methods and other services such as fraud management. Then, in early 2010, we saw the growth of technology platforms with open API approaches. Finally, what we see now is the combination of all these with a focus on consumer experience, along with a modular approach allowing real time switching between providers to optimise declines, chargebacks and applicable fees.

The payments evolution won’t stop here, there will be many more developments and those retailers who prepare for constant change will find it easier to respond to evolving consumer behaviour.

About Masha Cilliers: Masha Cilliers is Digital Payments Consultant with 20+ years’ experience in the payments industry. Prior to becoming a consultant, she played key strategic management roles at DataCash, GlobalCollect and Cybersource. Before that Masha worked at Microsoft and Visa.

About IMRG: IMRG (Interactive Media in Retail Group) is the UK’s industry association for e-retail. Formed in 1990, IMRG is setting and maintaining pragmatic and robust e-retail standards to enable fast-track industry growth, and facilitates its community of members with practical help, information, tools, guidance and networking.

www.imrg.org

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Overview: The Transition to EMV

While most developed markets moved to EMV in the mid 2000s, the US has, until very recently, remained wedded to mag-stripe technology. The official date for full migration to EMV in the US was 1 October 2015, after which time all bank cards issued should be EMV compliant and all retailers able to accept them. If merchants had not introduced processing systems to facilitate chip-based payments, then liability for fraud would pass from the card providers to those merchants.

However, it was estimated that of the 13.9 million POS (Point of Sale) terminals in the US, approximately 57% were still non-EMV by the end of 2015. Of the remaining 43%, less than half (40%, or 17% of all terminals) were contactless capable. EMV usage before then was negligible. In the year to June 2015, just 0.26% of US card present transactions, or approximately 1 in 400, were EMV, against 96.94% in Europe (excluding CIS) and 86.95% across Canada, Latin America and the Caribbean. That said, by the end of 2015, the US had nearly 2.4 million active POS terminals, second only to China at that time.

![Figure 1: Contactless Terminals in Service (m), Leading Markets, Year End 2015 Source: Juniper Research](image)

While contactless cards were available in the country from the mid 2000s, these employed the MSD (Magnetic Stripe Data) standard. With the contactless MSD card, payment occurs in a similar manner to the traditional contact mag-stripe card, although the payment mechanism whereby the on-card chip generates a code which can be verified by a card issuer’s systems, is more secure than that of a traditional card, in that it prevents replay attacks (as no transaction can be performed twice) and card cloning or skimming.

Furthermore, retailers, wary of the cost of migrating, were reluctant to upgrade their terminals to include MSD contactless. By 2011, 7 years after the first MSD cards were introduced in the US, less than 2% of US retailers offered contactless payment options. Hence, with contactless card ownership extremely limited in that market, it is left to mobile devices to provide the impetus for contactless in general.

While Softcard failed to achieve this, there are indications that Apple Pay and, to a lesser extent at present, Samsung Pay are paving the way for wider contactless adoption. Within 3 days of its October 2014 launch, Apple Pay had more than 1 million registered users; Juniper Research estimates that, by the end of 2015, more than 13 million US iPhone owners had used the service at least once and that around 3 million were regular users of the service.

Main payment methods in the US

The total value of US retail sales in 2015 was just over USD 4.7 trillion, of which approximately 7.2% came from online sales. If we look purely at in-store sales, the overwhelming majority of transactions by value (89%) were accounted for by credit or debit cards. Of these, contactless payments, both in terms of physical cards transactions and those made by cards registered to NFC (Near Field Communication) smartphone payment mechanisms, accounted for just 0.2%. Cash accounted for a further 10%, with the remaining 1% primarily being cheques.

In the online arena, cards also account for the overwhelming majority of payments. Cryptocurrencies such as Bitcoin have seen only limited transaction outside the exchanges; we estimate that Bitcoin and altcoins account for no more than 0.2% of all online payments in the country. ➔
As far as the digital content space is concerned, card payments are again predominant for payments via both desktop and mobile devices. Here, carrier billing currently accounts for a small amount (6%) of digital content billing, but this is expected to increase significantly over the next 5 years as more online storefronts and retailers deploy it as a payment option.

Key payment players

On the card payment side, Visa, MasterCard and American Express are the leading players, with consumers spending nearly USD 2.2 trillion on Visa-branded credit or debit cards in 2015. The POS terminals market is dominated by Verifone, which is responsible for approximately 50% of terminals shipped. The contactless activities of Apple and Samsung, whose NFC services are rapidly gaining traction, have already established them as key players in the proximity payment space, while Google is becoming the third major actor in this arena following September 2015 launch of Android Pay.

In the online space, leading US ‘bricks and mortar’ retailers have been slower than their UK counterparts in developing and nurturing ecommerce revenue streams, perhaps wary of cannibalisation. Hence, the pureplay online retailers have established a firm grip on the market. Amazon is now believed to account for over 50% of online US B2C (business to consumer) sales by value; the company has also invested in its grocery delivery service, AmazonFresh, to compete both with the established specialists in this field, such as InstaCart, and with the aim of further eroding instore spend.

Meanwhile, eBay is the clear leader in the P2P (person-to-person) retail space, with over USD 30 billion in transactions in the US. Finally, former eBay subsidiary, PayPal, continues its dominance of digital wallets.
India

Opportunities for Growth: Trends in Indian Ecommerce

Recent figures show that ecommerce sales in India grew from USD 2.3 billion in 2012 to an estimated USD 17.5 billion in 2015. Ecommerce in India is expected to grow to USD 100 billion by 2020 and cross-border ecommerce is estimated to account for over 20-25%. With 500 million expected internet users by the end of 2016, the opportunity in the market is difficult to disregard.

Historically, global merchants have seen this opportunity but have been turned off by all of the red tape and roadblocks of cross-border transactions. However, it became a lot more appealing in late 2015 when the Reserve Bank of India began to allow the import of goods and software with a value inferior to USD 2,000 without the need for a local entity if using an Online Payment Gateway Service Provider.

With the exploding growth of ecommerce in India, international merchants looking to sell cross-border into India can fully capitalise on the market by understanding the payments landscape, consumer payment trends and new innovative products aimed to meet consumer and merchant needs.

Payment landscape

India is a very diverse market in terms of its population and cultures and the same holds true for its online payment methods. Based on PayU research, we see 45-55% of online transactions being paid by credit or debit cards. Alternative payment methods such as Netbanking transactions account for nearly 35-45%. Mobile wallet transactions and other options have been rapidly grown to 5-10%. The value of transactions carried out via mobile wallets has grown by an astounding 500% between 2014 and 2016.

As it is evident, the local Indian payment options including Netbanking and locally issued credit and debit cards such as RuPay continue to make up a large percentage of the preferred payment option for online transactions. RuPay is an Indian domestic card scheme conceived and launched by the National Payments Corporation of India in 2012. RuPay cards have grown from 17 million in 2014 to nearly 247 million by January 2016.

The payment landscape in India remains very diverse and offering local buyer preferences is imperative to capture the entire market.

Payment user trends

While there are many consumer trends in payments, the most important and bound to make the largest impact on the industry is the rapid growth of smartphone use in the country. If you walk on the street in Delhi, you will see young people using their mobile phone and many of those for shopping online. Local merchants have put a large focus on m-commerce and developing apps that can replace the need for a consumer to use the website.

In late 2015, a report by Counterpoint Research showed that India had surpassed the US in the number of smartphones, with over 220 million. While this is still just a small percentage of the population as a whole (below 30%), this shows the importance a strong mobile user experience plays now and in the future. The challenge is that nearly 70% of consumers, according to our research, want to pay via their mobile but the poor experience and constant network drops do not encourage this action. The demand is there but the mobile experience must be improved for the opportunity to be fully captured.

New innovative solutions at PayU

The mobile payment issues aforementioned present challenges and opportunities for merchants and online payment providers. By solving these issues, conversion rates and online sales will take a big leap forward.

At PayU, we have recently launched an innovative product aimed to improve the user experience on his mobile device – OTP technology (One Tap Payments). This allows mobile payments using debit or credit cards to be processed with just one simple tap by the consumer on the device screen. The technology enables the consumer to store their card data in a secure white-labelled vault. This eliminates the necessity for the customer to repeatedly input their payment information when shopping online while also providing a secure environment for the date to be stored.
Additionally, once the customer has entered their password and CVV number there is no need to repeat the process when returning to that specific merchant’s checkout. These simple steps that streamline the customers shopping experience have shown to increase the mobile conversion rates by 25% to more than 83% conversion. The OTP technology also results in a faster process and decreases the likelihood of a network drop during the transaction. In fact, this same technology has a built-in feature that, if the network is lost during the transaction, the consumer simply has to tap the button to retry and the transaction will be processed to ensure its completion.

PayU has also recently launched a Direct Issuer Integration solution to minimise the URL redirects similarly to how PayU directly hosts the Access Control Server (ACS) page. This direct integration decreases the time each transaction takes, including the authentication and authorisation by 60%, and has led to higher conversion rates for the merchant. In addition, the direct connection allows processing of real-time refunds, while also handling settlements, chargebacks and disputes much faster.

**Conclusion**

It is clear that we are still just seeing the tip of the iceberg when discussing the potential of the ecommerce market in India. Offering local payment methods and a strong mobile solution will allow you to see high returns in this fast-growing and ever-evolving market.
Russia

The Russian e-Payment Scene Today

Even though the Russian online payment industry has seen the emergence of a variety of payment instruments – with online payment services becoming more and more popular – the market cannot be characterized as fully mature yet, as this term may be understood in countries where electronic forms of payment already prevail.

It is only progressively that internet users become online shoppers – six years on average, according to a recent study by Data Insight.

Payment habits

Meanwhile, the recent boom of online travel agencies has contributed to educating a new generation of online customers, reducing their fears of phishing and other fraudulent technologies targeting their bank card credentials. Thus online payment has become the norm in the eyes of Russian customers when it comes to purchasing digital products.

What’s more, with the rise of cross-border sales – while Russia was severely hit by the economic crisis during the past two years – the payment behaviour of online shoppers from remote regions and small cities has changed noticeably. These customers have begun shopping massively on such Chinese platforms as AliExpress, where online prepayment is demanded.

Deeply rooted in Russian online consumers’ psychology, the habit of paying by cash on delivery has yielded to the appeal of Chinese low prices – but remains predominant as far as domestic sites are concerned, with up to 90% of orders settled in this way.

A gradual but noticeable shift to payment on delivery by bank cards (mobile acquiring) is taking place.

Legislation and regulation remain unstable. Many changes have been introduced in the field of payments, personal data and to ecommerce in general, and they are expected to continue. In particular, the ways to combat money laundering and to optimise user identification are still subject to discussions.

New restrictions introduced by the central bank have affected banks working with individual entrepreneurs – and medium and small-size internet shops as a consequence. A mechanism of simplified (remote) user identification has been defined but is not widely used yet.

A major novelty of the past year is the development of a national payment system, aiming to operate local payments and clearing operations independently from such foreign companies as MasterCard and Visa. A brand new bank card, christened ‘MIR,’ was launched in December 2015, and is supposed to become ubiquitous in Russia as of July 1, 2016.

Main payment methods

Among online payment means, online banking and bank cards still prevail by far in Russia. E-wallets (including the market leaders Yandex.Money, Webmoney and the Visa-Qiwi wallet) come second, attracting nevertheless dozens of million users.

Split of various payment methods in various ecommerce segments in Russia

Source: Data aggregated from several PSPs and corrected based on the author’s expert knowledge.

According to a TNS survey conducted in 2015, the most popular online payment methods are online banking and bank cards used online, with 80% and 79% of Russian internet users, respectively, using these methods regularly, while 62% pay with e-wallets and 47% utilise SMS payments. For services where average check is higher than 15,000 rubles (approximately USD 220), payment by bank cards is, in many cases, the only available payment method.
Russia

Introduced in the country in late 2013, PayPal is getting traction, but essentially for cross-border purchases from European and US sites – rather than from Chinese ones, where this payment method is not always accepted.

Small-amount payments from prepaid mobile phone account are used for transactions of 300 rubles (approximately USD 45) on average. Driven by mobile operators’ large payment platforms (such as VimpelCom’s RuRu), the mobile payments account for up to 6% of the number of transactions but just 0.5% of their total amount.

Sberbank’s loyalty program ‘Spasibo’ should be also mentioned here, since it is the only loyalty program achieved serious success among Russians, and became a new payment method with some 5% to 7% of the total amount of online payments.

**Main PSPs operating in Russia**

No significant changes have been observed over the past couple of years on Russia’s payment scene. Alfabank is still the leader on the bank acquiring segment, serving such huge companies as Aeroflot.

There is no clear leader among PSPs. In a recent ranking, which was based on a large survey among digital production and payment integration service agencies, the ten leading PSPs or payment aggregators in Russia were (in alphabetical order): Assist, Chronopay, Cyberplat, Dengi.Online, Payonline, PayU, RBC-money, Robokassa, Uniteller and Yandex Payment Solution.

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**About Sun Consulting:** Sun Consulting provides consulting and support services in the fields of online payments, operational and finance management as well as IFRS accounting services.

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