



Opinion Paper on Next Generation Alternative Retail Payments: **User Requirements**

EBA Working Group
on Electronic Alternative Payments

Version 1.0

13th May 2014

CONTENTS

INTRODUCTION	3
OVERVIEW	3
DRIVERS FOR CHANGE IN RETAIL PAYMENTS	4
SEGMENTATION OF ALTERNATIVE PAYMENT SOLUTIONS – CASE STUDIES	4
CONSUMER AND MERCHANT REQUIREMENTS	6
SOME DESIGN CAVEATS	7
FAST FORWARD – THE 2020 USER EXPERIENCE	7
BANK WINNERS AND LOSERS	9
E-AP – SEVEN CHALLENGES FOR EBA MEMBERS	9
RESEARCH REFERENCES	10
GLOSSARY OF TERMS	11

Copyright © 2014 Euro Banking Association (EBA)

All rights reserved. Brief excerpts may be reproduced for non-commercial purposes, with an acknowledgement of the source.

The information contained in this document is provided for information purposes only and should not be construed as

professional advice. The views expressed are those of the members of the EBA Working Group on Electronic Alternative Payments and not necessarily the views of the EBA. EBA or its affiliates do not accept any liability whatsoever arising from any alleged consequences or damages arising from the use or application of the information and give no warranties of any kind in relation to the information provided.

layout: www.quadratpunkt.de

photo credit: © fotolia.com / Dreaming Andy, cirquedesprit

INTRODUCTION

In 2013, the EBA set up a Working Group with a brief to help the Board and members to gain a deeper understanding of the changing structure of retail payments and its impact on traditional cash, cards and ACH payments. With the help of external consultants, the Working Group developed an extensive archive of research materials and also delivered several reports to the Board which have helped shape EBA's vision for payments in 2020. The most important message, from these studies, was that new players in the payments business have potential to disrupt existing business models and to significantly disintermediate banks through alternative payments (e-AP) products. As a result, a second Working Group was formed in early 2014, commissioned to define more clearly the changing needs of the retail payments market from Alternative Payments and to recommend how EBA member banks should react.

OVERVIEW

Banking professionals now almost universally recognise that retail payments are undergoing significant and rapid changes. However, many may ask why should banks specifically focus on Alternative Payments (e-AP) rather than traditional cash, cards and ACH payments? The answer is relatively simple. Traditional payment methods have been under attack since the invention of PayPal, one of the first e-APs and one of the most successful non-bank payments innovations. PayPal delivered where bank cards and other forms of payment have not – in the e-commerce sector. Many others have followed, to such a degree that worldwide, there are now several hundred alternative e-AP payments methods, many of which operate in the EU.

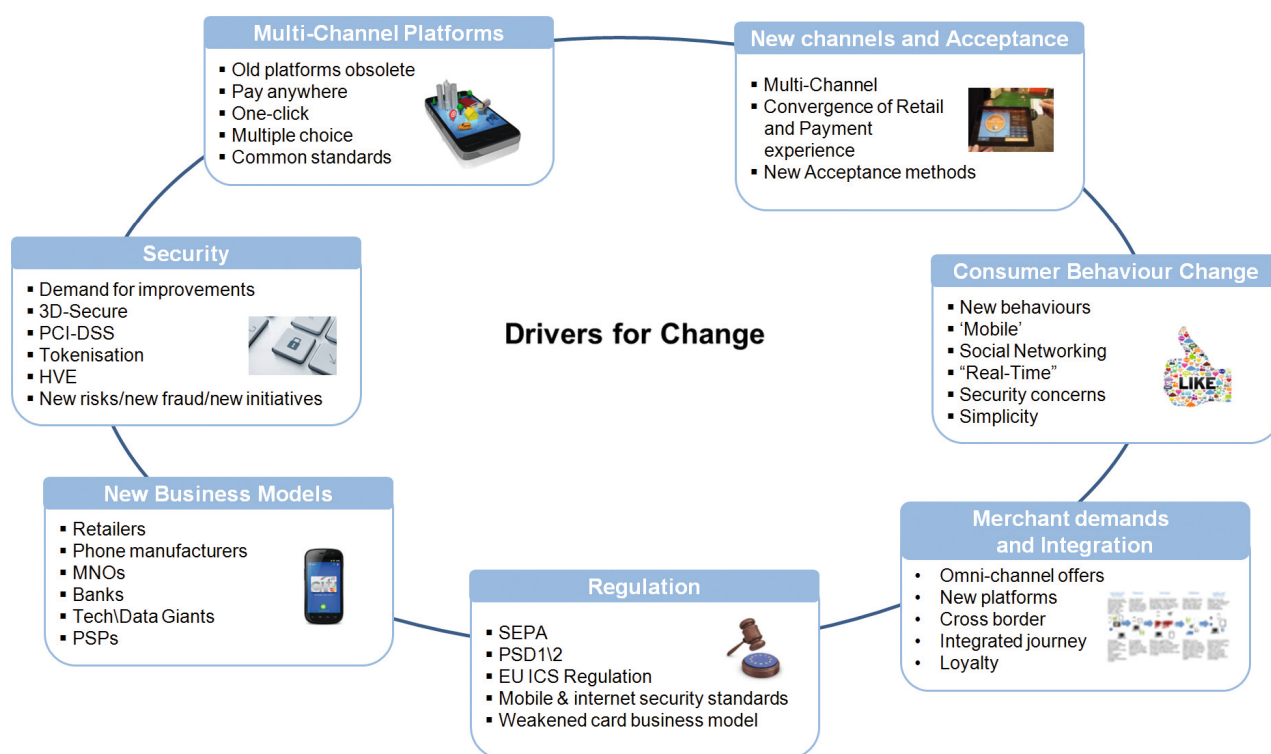


Figure 1: Drivers for change

After all, banks have built their own alternatives, such as iDEAL via the major Dutch banks and MyBank via EBA CLEARING. In addition, the underlying funding of most e-APs is through the SCT and the SDD. So, need banks be really concerned? Well, the answer is

yes. There are longer term implications from the non-bank expansion of e-AP, which the Working Group believes EBA members need to seriously consider. This paper seeks to clarify and explain this rationale.

DRIVERS FOR CHANGE IN RETAIL PAYMENTS

What factors are causing the growing impact of e-AP on traditional methods of payment and cards particularly? The current “Drivers for Change” are numerous and are particularly disruptive for incumbent issuers, acquirers and interbank payments processors. The most important drivers for change can be summarised as follows (see Figure 1):

- ▶ **Growth of new channels and acceptance:** There has been a rapid expansion of new payment channels and devices over the past ten years, including online/e-commerce, mobile, tablets and person-to-person. Many of these new channels cannot easily be supported by traditional Automated Clearing House (ACH) and card payment methods. In addition, new methods of acceptance are needed to support contactless, Near Field Communication (NFC), Quick Response codes (QR Code) and Bluetooth Low Energy (BLE).
- ▶ **Consumer behaviour change:** New customer behaviours have generated change. Greater use of smartphones, tablets and e-wallets, increasing use of social media, and a consumer expectation of instant, secure and simple methods of payment mean that traditional channels are less and less aligned to user needs.
- ▶ **New merchant demands:** Merchants are reacting to customer change and want to build omni-channel offers which require new and different payments platforms able to support multi-country operations.
- ▶ **Drive for integration:** Payments are becoming increasingly integrated into the customer journey and becoming a core pillar of many merchant offers. The advent of tablet/mobile based systems linked to sophisticated loyalty offers are best in class examples of integrated offers.
- ▶ **Impact of regulation:** Regulatory interventions and fee caps are gradually changing the balance between cards, and other forms of payment. The cards business case has been challenged and somewhat weakened. Merchants want even lower fees and this has incentivised the use of low cost alternatives. In addition, PSD2 supports diversification away

from cards and more directly towards the bank account, allowing non-bank providers access to the account and greater customer choice. ^(1,2)

- ▶ **Search for new business models:** Enabling new/alternative forms of payment has created a need for new business and commercial models. Valuable consumer behaviour data can be captured from mobile payments linked to mobile point-of-sales (mPOS). Furthermore, many retailers recognise the need to ‘own’ the payment space and deflect relationship capture by mobile network operators (MNO) and players such as Apple, Google and Facebook. Old models are being challenged and there is a drive to create new structures.
- ▶ **Pressure to increase security:** Consumers, merchants, key industry stakeholders are demanding improved security for payment transactions. This has driven mandates such as 3D Secure, Payments Card Industry Security Standard (PCI DSS) to protect citizens and remove data compromises. Security initiatives continue to generate substantial change with tokenisation and host card emulation (HCE) as the latest innovations. ⁽³⁾
- ▶ **Demand for multi-channel platforms:** Silo-based payments platforms are rapidly becoming obsolete and not fit for purpose. For example, the traditional, queue-to-pay, is no longer acceptable for many shoppers (although still tolerated) and cumbersome remote systems are continually challenged by consumers’ demands for one-click, seamless processes. The traditional dual choice of physical cash or cards in store is no longer sufficient. Consumers want to pay at home, on the move and in store and merchants want common processes and platforms.

SEGMENTATION OF ALTERNATIVE PAYMENT SOLUTIONS – CASE STUDIES

The drivers described above mean that the requirements for retail payment options are rapidly and continuously changing. Although cash remains the payment method mostly used and cards are the preferred electronic option, more than 200 international e-AP solutions have been identified by WorldPay. ⁽⁴⁾ Some show very strong growth, and

several have reached critical mass and are now mainstream offers that compete strongly with cards. To date most e-APs have been developed by non-bank providers, who are unconstrained by the legacy systems of banks and have innovated, building solutions that fill the “inconvenience gaps” in traditional payments methods.

The following summary of case studies provides details of successful e-AP payment methods. e-AP solutions have been broken down into eight segments, as follows (see Figure 2):

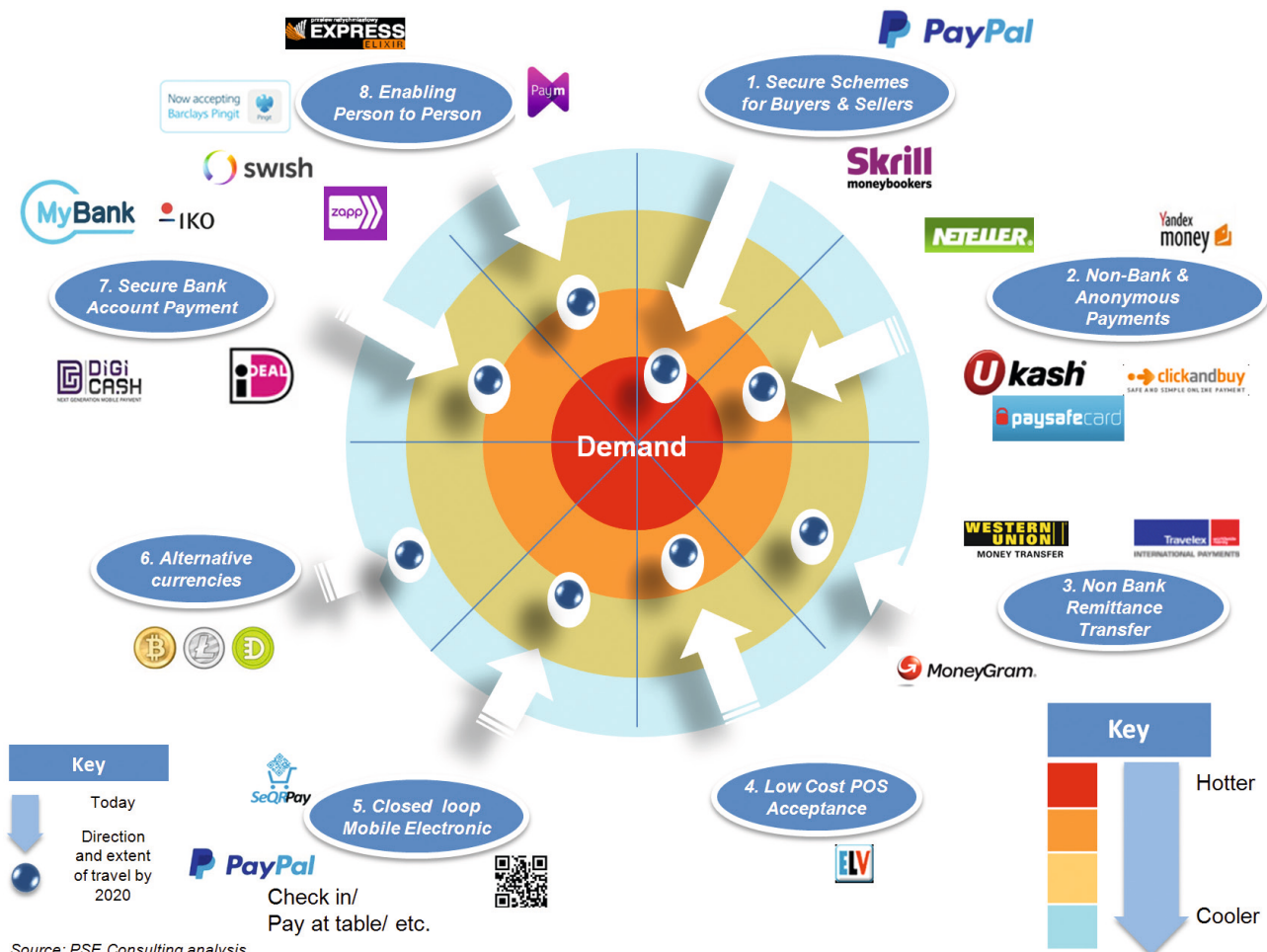


Figure 2: e-AP method segmentation

- **Buyers and Sellers Payments (e.g. PayPal):** PayPal originated the first, most known and quintessential e-AP, which enabled an online guaranteed payments link between Ebay auction site buyers and sellers who do not know each other. Card acquiring for auction sellers proved too complex, and thus banks have lost as much as 25 percent of e-commerce turnover in several EU markets. Paypal is now moving into face-to-face at the POS (see PayPal's pilot in the UK). ⁽⁵⁾ PayPal also invented the original 'wallet' concept with ACH funding backed up by card top-up.
- **Non-Bank and Anonymous Payments (e.g. Paysafecard):** This e-AP example enables consumers to convert cash to electronic value using pre-numbered vouchers, sold at the POS, which can be entered online and used for e-commerce transactions. Such products are mostly utilised by the un- or underbanked and are also used anonymously for gambling and gaming. No bank-led, credible alternatives have been identified so far.

- ▶ **Low Cost POS Acceptance (e.g. ELV):** For almost 20 years the German market has pioneered a unique Direct Debit ACH based, sophisticated e-AP called ELV at the POS. ELV generates over 1.5bn transactions per annum and also offers authorisation and payments guarantee options matching card functionality. ELV is almost as popular as bank-issued debit cards.
- ▶ **Remittances (e.g. Western Union and Moneygram):** Similarly remittance payments, although very traditional, are good examples of e-AP. Cross border transfers which were originally simple international remittance offers have widened their scope. These now enable cash to cash, account to cash and increasingly account to account transfers and payments.
- ▶ **Non-Bank Closed Loop Payments (e.g. SEQRwallet):** ATM and POS payments not fully served by cards have been launched by many non-bank innovators, often using QR code, HFL and other developing technologies for acceptance and are linked to proprietary non-bank wallets and operate as closed loop card schemes.
- ▶ **Crypto-currencies (Bitcoin and others):** Last in the non-bank development sector and at the extreme end of the e-AP spectrum are new currencies such as Bitcoin and others designed by non-banks to displace traditional cash and electronic money. At this stage, the application and success of these new payment methods is unclear.
- ▶ **Secure Online Banking Schemes (e.g. iDEAL and MyBank):** Despite the previous six e-AP segments being dominated by non-bank players, banks have been successful in launching competing e-AP products at an interbank level. iDEAL in the Netherlands were the first bank collective to launch their own e-AP for e-commerce, using the online banking application. This is a highly successful direct ACH based alternative, built originally to work around the now defunct PIN debit online limitations. ⁽⁶⁾ MyBank, developed by EBA CLEARING, offers similar functionality but with the key advantage of having a pan-European distribution capability.
- ▶ **Person-to-person (P2P) payment schemes (e.g. Pingit, Zapp, Paym and Swish):** Finally, and by no means last, there has been an accelerating launch of mobile based, bank P2P offers over the past two years. In addition, there are several telco/non-bank supported services also in place. P2P payments are a change driver. Many are now being offered as acceptance brands at merchant POS and online sites.

CONSUMER AND MERCHANT REQUIREMENTS

It is increasingly clear that consumers and merchants have a set of core requirements that are unlikely to change markedly over the next three years. Designers of any future e-AP products will need to meet these needs. A summary of the core requirements based on EBA Working Group research is as follows:

- ▶ **Ease of use – Simple/Simpler Solutions:** Consumers and merchants want simplicity. Solutions that involve 16-digit card Primary Account Number (PAN) input, PIN and 3D Secure passwords increase the ‘friction’ of the online and face-to-face retail experience, provide negative feedback to users and increase purchase abandonment. Consumers and merchants want simple and seamless ‘one-click’ solutions that lead to increased sales conversion rates and easily satisfied customers.
- ▶ **Mobility/Multi-channel:** Consumers (particularly below the 25 age band) want payments capability available anywhere – on the move, at home, in store and at work. Merchants want integrated multi-channel services that enable face-to-face and online purchase transactions as well as refunds and returns to be authorised, cleared, settled and reconciled together.
- ▶ **Free/Low Cost:** In most countries consumers expect online and face-to-face payments to be free of charge. For merchants, payments are a ‘distress cost’ of doing business and they thus seek lower priced services and increasingly consider non-card solutions.

- ▶ **Safe and Secure:** Concern about the security of personal data is increasing. Many consumers worry particularly about mobile security. Merchants fear the high risk and damaging impact of breaches. In addition, not all are happy that basic ACH payments meet the equivalent of PCI DSS standards. Consumers are cautious and only trust one or a small number of providers with their payment details. Not all are clear on risks or levels of protection that different methods of payment deliver.
- ▶ **Unbanked and Anonymity:** Some EU markets have a large cash-centric group of unbanked citizens. Such consumers want to be e-commerce enabled and wish to make anonymous payments and are seeking convenient ways to convert cash into electronic money.
- ▶ **Real-time immediacy:** Consumers and merchants now have a growing expectation for immediacy. Immediate information and immediate payments, or at least certainty the payment (as opposed to availability of funds) will be completed. Thus there is a growing demand for real-time.
- ▶ **Flexibility and Choice:** Consumers increasingly want payment options that fit their particular circumstances as well as cultural and national market preferences. Merchants need to meet these expectations and thus want their payment service providers to offer many acceptance methods.
- ▶ **Preferences Specialisation:** Both consumers and merchants expect payment services to meet the specialised requests of their market sectors (e.g. hotels, fuel, transit). A single service that seeks to suit all users is no longer an attractive offer.
- ▶ **Returns/Refunds:** Similarly, consumers and merchants want proper redress processes to handle returns and enable speedy refunds, often at outlets and locations that are not owned by the original merchant.
- ▶ **Convenience vs. Risk:** There is a price for convenience if it increases exposure to risk. The trade-off between the consumer and merchant demand for speed against natural caution often declines with familiarity. This has created a momentum for designing one-click solutions, which may expose product owners to payments risk, particularly for ACH driven e-APs, where core components are basic and there is a need for longer authentication.
- ▶ **Mobile Positioning:** Smart mobile applications are undoubtedly the 'new payments norm' in retail, but inevitably they will not be used by everyone or in all circumstances. Thus, e-APs must be designed to operate across all channels and all environments. Hence, the development by MyBank of a mobile capability and the move by PayPal into the bricks and mortar world of retailing and hospitality.
- ▶ **Consumer Redress Expectations:** There is increasing recognition by retailers and merchants that customer service is the key to success. This means that e-AP's product design needs to provide adequate redress processes alongside simplicity and security. ACH payments finality of settlement rules often run counter to consumer and merchant requirements for redress. However, a well-designed and robust e-AP product can reduce disputes, and the impact of fraud and merchant bankruptcy.

FAST FORWARD – THE 2020 USER EXPERIENCE

If we think forward five to six years, what might be the expected experience of consumers and merchants from e-AP payments by 2020?

Mobile, tablet and wallet technology will almost certainly be key components in any new consumer journey for both face-to-face and e-commerce transactions. The journey will increasingly reflect the sophisticated customisation of the consumer payments initiation process as banks and non-banks roll out e-wallets and improve security. Consumers will also have developed an improved perception of mobile security but may still limit their use of wallets to a small number of trusted schemes, banks and merchants. The traditional silo differences between

SOME DESIGN CAVEATS

There is a substantial list of user requirements. However, there are a number of key issues that e-AP product designers (particularly those using ACH components) need to carefully consider as they construct their offers, namely:

card, ACH and other forms of payment will also be reduced over time. Several observers suggest that mobile payment users may no longer perceive the debit card as a logical route into the current account. Many consumers will prefer direct access to their accounts and P2P type payments.

Younger consumers' behaviour will also be a key influencer on the 2020 journey. For this group, some traditional forms of payment, like cheques are almost unknown. For many, cash lacks style (particularly in the Northern EU countries) and cards are increasingly their parents' preferred method of payment. Younger consumers, brought up on Amazon and iTunes' one-click processes, will be at the forefront of demands for a simple and fast payments journey.

There is general recognition that in the 2020 journey, payments will have become almost subsumed under other parts of the purchasing processes, becoming embedded, if not invisible, and not being the final exit point of a transaction any longer. Geo location technology, data analysis, social media use by brands will help consumers choose merchants and take up offers. Product searches, pre-purchase references from friends and loyalty offers will extend the consumer's journey's length and smartphone purchasing and shopping will become, as it is already in many markets, a life-style event. What happens before the payment transaction will be more important, albeit payments will remain a fundamental pillar of the process.

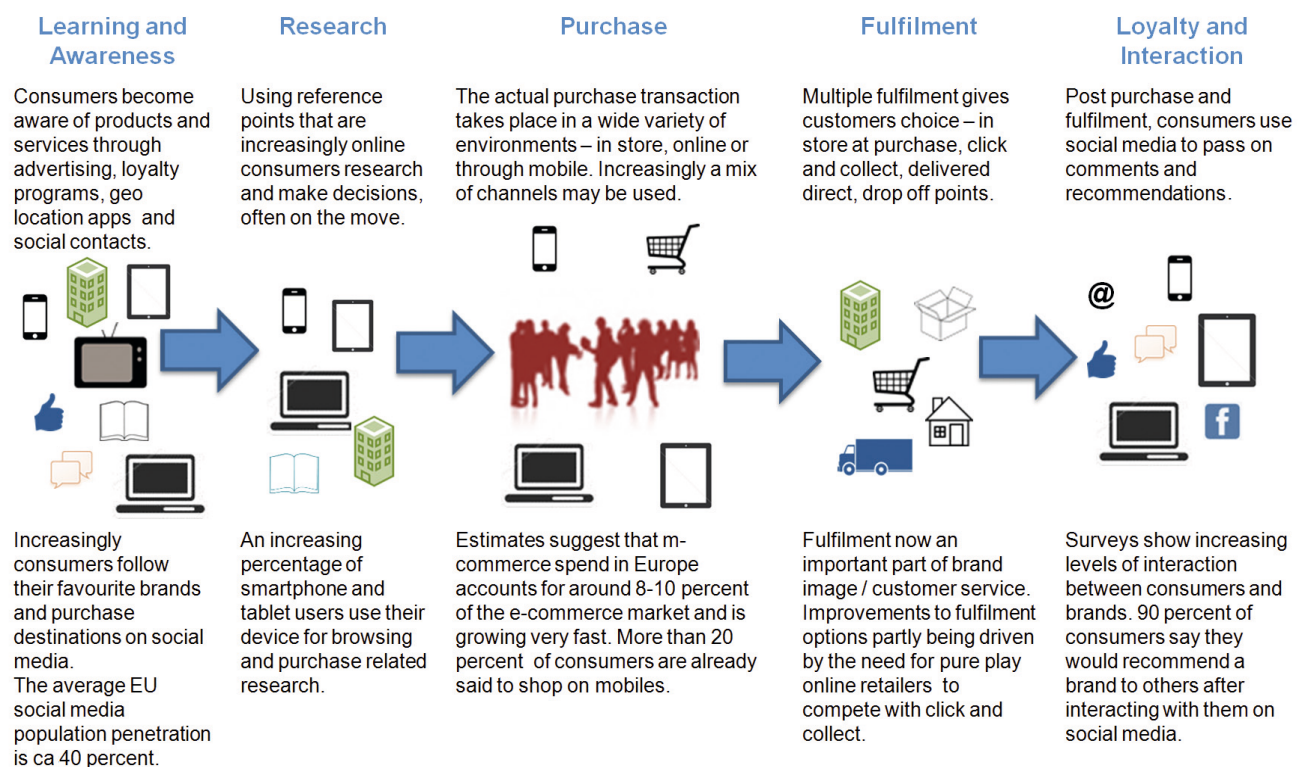


Figure 3: The Consumer Payments Journey

Already, an omni- and multi-channel world is evolving. Consumers want to move easily between channels and increasingly do not expect to see differences. Payments and payment demands will need to evolve to support the omni-channel requirements. Visibly different payment processes for mobile, face-to-face and online will no longer be acceptable. Many customers will not expect to queue at a POS and wish to pay online via their smartphones. A unified offer will be required, increasingly in real or near-real time. By

2020 the focus will be 100 percent on the customer, enabling an increasing proportion of customers also to pay by mobile.

Consumer surveys suggest an emerging demand for this vision of the new journey. The ability to pay without going to a POS, using a mobile or tablet to pay or using an app is getting higher survey 'vote' percentages and the evidence from the surging use of mobile devices, particularly tablets, is clear.

However, security remains a key issue for many and must be addressed for long-term success. Evidence suggests that consumers are not always aware of the sophisticated, substantial protection and redress available to them from traditional payments. At this stage, new e-AP products are struggling to rationalise the cost and complexity of developing similar features and benefits for implementation. But awareness is developing. The press, consumer bodies, and regulators already recognise the need to solve the problem of security and fraud.

For merchants, the demand is for lower cost alternatives that are fast, with a known outcome. Merchants wish to avoid risk and are worried about lack of protection for consumers from many non-bank e-AP providers. Their concern is also to avoid disputes, charge backs, fraud and associated costs.

Merchant feedback also indicates demand for an optimal payments mix of cards and e-AP's combined with reduced use of cash that deliver EU reach and good conversion rates at a fair cost. There is a strong call for common e-AP solutions for all EU member states – an EU-wide ecosystem – and a clear legal framework for e-AP with which to address liability.

BANK WINNERS AND LOSERS

As has been demonstrated, the payment paradigm is changing and as it evolves and e-AP innovation takes hold, banks may lose relationships and revenue unless action is taken. Each day non-bank start-ups announce challenges to the banks' traditional payments domain. Many banks have been slow to recognise that gaps in their product functionality have been filled by much improved non-bank offers. Not all new entrants will be successful but some will succeed and with the cards business model increasingly under threat, bank product owners must re-examine their traditional propositions. For many banks, new e-AP's built around ACH concepts may safeguard bank revenue streams.

In Poland, PKO, with a number of other banks, launched a bank transfer-based POS, ATM and P2P mobile payments system in 2013 as an alternative to card payments. The banks also developed a common mobile payments standard as a means of gaining a foothold in the Polish mobile payments market. This

consortium may move further and develop a new national market e-AP scheme. ⁽⁷⁾

Similarly, Barclays introduced its Pingit P2P app using mobile numbers as a bank account proxy. This has been developed with a commercial version that allows B2P payments at the POS and online and also leverages QR code technology. Paym, with most of the UK banks involved, is launching with a similar P2P offer. ⁽⁸⁾ Zapp will follow, which will also support ACH payments at POS.

Meanwhile, MyBank continues to develop its service proposition as it offers a pan-European e-authorisation solution enabling safe digital payments and identity authentication using a consumer's online banking portal or mobile application – e-commerce through your online bank.

While there are small pockets of activity around Europe, many other banks or bank communities appear to have given e-AP product developments a low priority so far.

E-AP – SEVEN CHALLENGES FOR EBA MEMBERS

The Working Group proposes seven challenges, opportunities and implications for EBA members, as follows:

- ▶ The first challenge is to recognise, across the bank, the changing retail payments ecosystem and the impact of accelerating innovation in e-AP. Banks need to re-align their traditional payments strategies to reflect the demands of the new retail commercial environment and plan to deflect long-term disintermediation.
- ▶ The second challenge is to overcome the internal ACH vs card product development silo's that exist in most banks and to re-educate departments to co-operate and think "payments convergence", "multi-channel" and "integrated services".
- ▶ The third challenge is for the payments business to accept that e-AP products are already in the market and that there is a pressing need to develop new ACH-based products that complement cards (they do not need to compete or cannibalise).

ise), particularly as card issuer revenues will be impacted by the regulatory caps on interchange.

- ▶ The fourth challenge, for larger members, is to develop ACH-based e-AP products where they own the IP and can actively compete with other providers.
- ▶ The fifth challenge is to encourage interbank collaboration to share costs of development and operation.
- ▶ The sixth challenge is to build e-AP products that draw on best practice and utilise the best-in-class components and features from both ACH and card payments.
- ▶ The seventh challenge is to fully understand the challenging needs of the market and to maintain best-in-class e-AP products.

Research References

- (¹) **Interchange fees for card-based payment transactions**
 - a) [Link to the European Parliament / Legislative Observatory website](#)
 - b) [Link to EuroActiv press release “MEPs cap interbank fees” 4th April 2014](#)
- (²) [Payment services in the internal market \(PSD2\)](#)
- (³) **ECB Security of Retail Payments**
 - a) [Press Release](#)
 - b) [Report](#)
- (⁴) [Guide to Alternative payments](#)
- (⁵) [PayPal ‘pay with face’](#)
- (⁶) [iDEAL](#)
- (⁷) [PKP IKO app](#)
- (⁸) [Paym launch](#)

Glossary of Terms

e-AP	Electronic and Alternative Payments
ACH	Automated Clearing House – an electronic network for financial transactions
BLE	Bluetooth Low Energy – a wireless personal area network technology that facilitates wireless connections over short distances
ELV	German POS Direct Debit Payment scheme (elektronisches Lastschriftverfahren)
HCE	Host Card Emulation – the presentation of a virtual and exact representation of a smart card using only software (usually in the cloud)
NFC/Contactless	Near Field Communication is a set of standards for mobile devices that establishes radio communication by bringing them into proximity
PAN	Primary Account Number
PCI-DSS	Payments Card Industry Security Standard for online merchants
POS	Point of sale (also called POS or checkout, during computerisation later becoming mobile point of sale or mPOS) is the place where a retail transaction is completed. It is the point at which a customer makes a payment to the merchant in exchange for goods or services.
QR Code	Quick Response code is a machine-readable optical label that contains information that can include a payment instruction
3DS	3D Secure online card security protocol
Tokenisation	A system that converts card PAN numbers into randomly-generated values or tokens, making it more difficult for hackers to gain access to cardholder data.

Contact details

For any additional information, please contact:

Daniel Szmukler
Director
d.szmukler@abe-eba.eu

Euro Banking Association (EBA)
40 rue de Courcelles
F - 75008 Paris
TVA (VAT) n°: FR 12337899694