

## EPFSF Briefing

### Innovative e-payment solutions: A European perspective

Nobody likes to pay. But at least, Europeans can indulge in an ever growing variety of ways to part with their money. The choice of the payment methods depends on the transaction scenario. Typical scenarios fall into four very broad categories:

1. **Physical purchases at the point of sale:** This is the classical transaction for instance in a store, supermarket, or in a café. For smaller sums (a latte macchiato), cash is still dominant. But cash has its drawbacks. It is often unsafe, inconvenient as well as expensive to handle for both retailers and consumers. By one estimate, banks in the EU-9 spent around EUR 20 bn on handling cash transactions in 2004<sup>1</sup>. For micro-payments, a plethora of cash replacements has been tried (many failed) or is being developed. Contactless solutions – probably integrated in mobile phones and bundled with “must-have” characteristics (e.g., a ticket for mass transit) – look promising. For bigger purchases, credit or debit cards are established payment tools and are gradually replacing cash in many countries.
2. **Bill payments:** Direct debits and credit transfers account for the bulk of recurring bill payments (e.g., the phone bill) in Europe. Cheques are disappearing. More sophisticated electronic payment forms – such as Electronic Bill Presentment and Payment (EBPP) – offer additional services. However, EBPP is still developing slowly in Europe.
3. **P2P payments:** They include settlements of online auctions and cross-border remittances. The latter often involves “unbanked” recipients.
4. **B2C e-commerce:** This covers virtual products (e.g., music, online games) and goods or services bought in an online store or portal. Purchases over the internet are the natural habitat of electronic payments. The bulk of online commerce has settled for established payment methods, such as credit cards, direct debits or bank transfers<sup>2</sup>. Yet, an abundance of innovative e-payment solutions tries to gain traction.

There is a trend towards cashless payments. Among others, this trend is driven by the growing popularity of the internet, the emergence of new transaction types (e.g., downloads) and new technologies, such as Near Field Communication (NFC) and SMS, which increase the appeal of cashless payments in offline commerce.

From a European perspective, innovative e-payment solutions are particularly interesting in that they may facilitate cross-border e-commerce by offering cross-border payment solutions.

#### Little cross-border e-commerce

B2C e-commerce is set to grow at a high speed. DB Research reckons that by 2010 turnover will reach close to EUR 340 bn in Western Europe, which implies a growth rate of around 27% p.a. – way above growth in brick-and-mortar retail sales. However, online commerce is still rather national. For instance, in four out of five German online shops less than 10% of total sales go abroad<sup>3</sup>. By the same token, only 12.5% of German online buyers have ordered from foreign online shops<sup>4</sup>. Yet, differences in tastes, languages, and regulation (e.g., laws on consumer protection) explain to a large part the low share of cross-border e-commerce.

<sup>1</sup> De Ploey, Wouter and Olivier Denecker (2007). Payments in Europe: a Tower of Babel with Construction Problem. McKinsey.

<sup>2</sup> See Heng, Stefan (2007). E-Commerce settles for established payment systems. E-economics 62. DB Research, 2007.

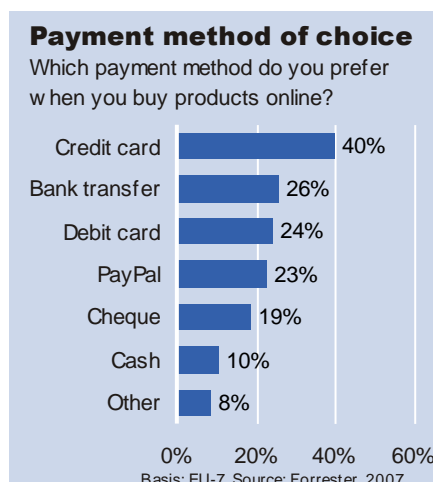
<sup>3</sup> ibi Research (2006). Zahlungsabwicklung im Internet.

<sup>4</sup> EuPD (2007). E-Commerce 2007.

### Paying is part of e-commerce

Also, the particular circumstances of distance selling in impersonal virtual reality play a part. For example, there is a wide gap between delivery and payment in online commerce in terms of both location and time. But business partners who do not know each other personally are particularly suspicious in practice when it comes to paying. This is even more the case when e-commerce crosses national borders. Thus, the payment transaction is the Achilles' heel of e-commerce. In a survey, less than a fifth of German online shoppers said that online-payment solutions would convey security when buying abroad.

Overall, credit cards are the most frequently used payment method when buying online (see chart). PayPal, a subsidiary of eBay, is the only new e-payment solution which is popular among a large part of European online shoppers. But the preferred payment method varies considerably across countries. 56% of Germans prefer electronic bank transfers, but only 26% like credit cards. The British, on the other hand, prefer credit cards but ignore transfers (see table). This is also a challenge for online retailers who want to target customers abroad. They need to pay attention to national payment preferences and offer different solutions.



### Europeans favour different payment methods

Which payment method(s) do you prefer when you buy products online?

	UK	France	Germany	Spain	Italy	Netherlands	Sweden
Credit card	60%	35%	26%	51%	51%	19%	34%
Electronic bank transfer	3%	3%	56%	20%	14%	43%	43%
Debit/payment card	43%	57%	3%	14%	10%	14%	17%
PayPal	35%	16%	22%	14%	26%	11%	11%
Cheque/accept giro	5%	17%	31%	2%	19%	37%	13%
Cash	3%	3%	10%	32%	19%	16%	24%

Source: Forrester, 2007

### Innovative e-payment solutions struggle for market share

Handling payments is big business. Little wonder that so many providers of new e-payment solutions want to take a slice from that pie. In Germany alone, there are more than 40 innovative e-payment solutions in operation – but only very few, such as PayPal, Giropay, Click & Buy, have found greater popularity. Very broadly, they are either wallet based (e.g., PayPal) or online-banking based (e.g., Giropay in Germany, iDeal in the Netherlands). There is a large variety in details: Some e-purse solutions are pre-paid (convenient for smaller amounts), others are post-paid. Some solutions use mobile phones, to initiate payments, to add the outstanding amount to the phone bill, or to verify payments via SMS. Online-banking based e-payments are a way to arrange electronic bank transfers automatically. This means, in effect, that online buyers pay in advance with no possibility to charge back.

The big hurdle for new payment solutions is that they need to be attractive to merchants and consumers at the same time. This is, firstly, a chicken-and-egg problem (a “network” effect in the jargon of economics) because merchants install only solutions that are widely adopted by consumers. But consumer would not adopt any payment method unless there is something to buy with it.

Secondly, merchants and buyers often want things which may appear difficult to reconcile. Something that is viewed as an improvement by one side may be seen as a disadvantage by the other side. Customers, for instance, want the possibility to dispute claims, whereas merchants want to limit charge backs.

Any new payment solution must offer a clear value added over existing services to gain attraction. Successful new e-payment solutions must keep the interests of merchants and online buyers in balance. They also need to solve the chicken-and-egg problem. Therefore, a strong market position, a large customer base to register up-front or a true “killer-application” are needed.

PayPal owes its success to its integration into eBay. It filled a market niche because it allowed people to transfer money faster and cheaper (particularly across borders) than existing solutions. The need for such P2P transfers was created by eBay’s online auctions. Moreover, PayPal addresses customer concerns about identity theft and online security in general. It assumes the role of a front-end-intermediary so that customers do not have to enter personal data on merchants’ sites.

### **Innovative e-payments build on existing infrastructure**

It is important to bear in mind that most innovative e-payment solutions rely on the existing banking infrastructure for ultimate settlement. PayPal, for instance, clears accounts using credit cards or bank accounts. New e-payment solutions often bring about additional services over existing solutions which increase safety, convenience or other things, merchants and/or customers want. As they operate on the front-end only, changes in the underlying payment infrastructure, such as those caused by SEPA, will have an effect on innovative e-payments, too.

SEPA aims to create a single market for retail payments. Currently, the European Payment Council discusses the creation of a SEPA direct debit eMandate and a SEPA online-payment solution. Both draw on existing online-banking authorisations to validate either a European-wide direct debit or bank transfer.

The net effect of SEPA on innovative e-payments in cross-border transactions may be ambiguous. On the one hand, a more efficient retail-payment backbone may help innovative e-payment solutions to get a European reach. After all, SEPA might facilitate clearing with a customer base that is spread across Europe. On the other hand, things like a European-wide electronic direct debit may crowd out the need for alternative payment systems in the first place.

### **Few players will win big**

The strong network effect plus the fact that online merchants and customers will only hold a limited number of different payment options in their portfolios means that only a few innovative e-payment systems will reach a critical mass across Europe. The rest will disappear, cater only to specific niches or operate on purely national levels. This may raise competitive concerns because the incumbents are not expected to be materially challenged.

Briefing notes are prepared by the Financial Industry Committee to the European Parliamentary Financial Services Forum. For further information on the subjects raised in the briefs please contact the Chairman, Members or Secretariat of the Financial Industry Committee.

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