

## PAYMENTS FOR THE 21<sup>ST</sup> CENTURY: MAKING E-COMMERCE WORK

**Summary:** E-commerce needs to be differentiated between Business to Business (B2B), and Business to Consumer (B2C), as each transaction has different needs and characteristics. Confidence is the key issue to increasing e-commerce volumes, and banks are the natural candidates to becoming trusted third parties between buyers and sellers. New technologies in the areas of security, authentication, smart cards and retail payment networks are being developed at a European level, and together with the EU's internet strategy, the continent is trying to position itself for the challenge of e-commerce in the 21<sup>st</sup> century.

### INTRODUCTION

The term 'e-commerce' is widely used whenever a commercial transaction is made over the internet: in other words, e-commerce refers to the process of "on-line" buying and selling of goods and services. It goes without saying that e-commerce can only accelerate if consumer/business confidence exists and in particular in the payment part of the chain.

A basic distinction should be made between business-to-consumer e-commerce, also referred to as B2C, where card payments have a strong comparative advantage for the integration of the payment value chain, and business-to-business e-commerce, sometimes referred to as B2B, where the nature of the payments requires a more sophisticated payment mechanism. The reality though is rather more complex.

When it comes to B2C, price, choice and convenience are the three key variables which will drive consumers to trade over the internet, while volume may remain rather low. For companies, efficiency and effectiveness of doing business must prevail in e-commerce, the relationship between both parties still being very important. These differences can be illustrated as follows:

#### B2B versus B2C

|                     | <b>B2B</b>                  | <b>B2C</b>                   |
|---------------------|-----------------------------|------------------------------|
| <i>Key drivers</i>  | Efficiency<br>Effectiveness | Price, choice<br>Convenience |
| <i>Volume</i>       | High                        | Low                          |
| <i>Timing</i>       | Mission critical            | Important                    |
| <i>Complexity</i>   | High                        | Low                          |
| <i>Relationship</i> | Very important              | Not decisive                 |

Source: ABN AMRO, *E-Commerce beyond the Hype* (Nov 2000)

The European banking industry has been very active in finding solutions to make sure that European consumers and merchants have access to a secure, robust and trusted mechanism for their e-commerce payments. This has become all the more necessary given the increasing importance that e-commerce is taking in absolute value terms (from several hundred billion euros currently to several trillion euros forecast in the coming years).

## **THE ROLE OF BANKS IN THE E-COMMERCE PAYMENTS**

As underlined above, trust (i.e., identification) is crucial not only to the payment process, but also to other steps of the deal flow. Mechanisms for e-commerce payments, be they B2C or B2B, need therefore to ensure mutual authentication between the buyer and the seller, so that all parties involved in the transactions know exactly who they are doing business with. Authentication is the process of ensuring that purchasers are both genuine and are who they say they are, and that the website is a real one. Trusted third parties (TTP) are therefore going to play a vital role in this process. Banks are of course natural candidates to become TTP between buyers and sellers, thus inevitably adopting a leading role in securing internet transactions.

Two basic types of e-payment instructions should be considered within this context :

1. Payment instruction from a customer (consumer, SME, corporate) to his/her bank;
2. Payment instruction from a customer (consumer, SME, corporate) to a portal of a retailer (SME, corporate).

### **For B2C transactions**

A B2C transaction is very different from a B2B one, because the payment is usually considered by merchants as an essential part of the deal, one to be settled in real time. Credit cards and debit cards are the dominant form of payment for B2C internet transactions, offering customers international acceptance and restricted liability for unauthorised use. Many merchants offer the security of the Secure Sockets Layer (SSL) protocol, which provides authentication of a merchant's server to the purchaser and encrypts the payment messages sent in order to ensure security when transmitting credit and debit card information. But a significant number of consumers are still reluctant to use their credit and debit cards over the internet, and this for security reasons. And the tally of disputed internet transactions is increasing. This clearly demonstrates that trust on its own was not enough to underwrite the integrity of a system. To provide greater security and authentication of cardholders and merchants for internet transactions, the banking community has developed new standards, such as the three domain model which allows the cardholder and the merchant to be authenticated via interoperability of authentication technologies.

### **For B2B transactions**

Trust is particularly important for B2B payment transactions, where the uncertainty about the identity of potential trading partners is preventing many SMEs from conducting transactions over the internet, given the risks involved.

Banks must be able to offer their clients secure internet-based and invoice linked payment solutions. This needs to be coupled with the possibility of offering them authentication methods when entering into a commercial transaction, methods that need to be interoperable across market places. Banks are already involved in various consortiums offering a variety of payment solutions for their own members, including the development of standards for identification purposes such as Identrus (world-wide banking network to serve as TTP). The banking sector is however still confronted with the issue of authentication of their clients' partners when they are not a client of the (consortium of) banks.

### **A word on Smart Cards**

There is a considerable potential, in Europe, for smart cards to play a major role in e-commerce. But the chip is the key element for broadening and securing the range of applications that payment cards can deliver in the virtual world. The standards currently developed by card schemes will have to be widely spread across Europe and this can not be done by the banking industry alone: governments, large retailers and SMEs must also realise the benefits of those new pan-European (or global) standards for cards and terminal infrastructures, and actively promote/implement them together. Further chip card developments on cards and/or on mobiles should strengthen Europe's position in the future.

### As a conclusion

Higher confidence is a key factor for e-commerce to become a true success story. Once consumers and businesses know that their on-line payments are secure, they will enter the market in high numbers. The European payments structure is currently the scene of interesting developments, leading the way in secure internet transactions through technological advances in Smart Cards and encryption. The banking sector is also putting in place robust new retail payment infrastructures such as STEP 1, and SET and 3D SET for debit cards and credit cards. All this comes in the wake of intense activity from the EU institutional side, with initiatives aimed at making Internet access easier and increasing consumer confidence, in order to prepare Europe for the challenges of e-commerce in the 21<sup>st</sup> century.

Briefing notes are prepared by the Industry Advisory 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 Advisory Committee.

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