Electronic Payments and E-Invoicing: Opportunities, Challenges and Security Issues

An e-Business W@tch Workshop in cooperation with ELTRUN – Athens University of Economics and Business

Athens, 31st May 2005

About 250 participants, mainly from the financial services industry, the IT services sector and from the Athens University of Economics and Business attended the workshop on "Electronic Payments and E-Invoicing" on 31st May 2005. The event was organised by the Commission's e-Business W@tch in cooperation with ELTRUN, The eBusiness Centre at the Athens University of Economics and Business. The workshop was chaired by Prof. Georgios I. Doukidis, Athens University of Economics and Business.

1 Background and programme

Electronic business has matured into a day-to-day activity for many firms. In manufacturing, business-to-business transactions are increasingly conducted via computer-mediated networks. In consumer-oriented service sectors such as tourism, telecommunications and retail, not only communication with customers, but also a significant proportion of the selling process, is rapidly migrating to the Internet.

Electronic invoicing and the seamless processing of e-payments are key functions at the interface between companies, their suppliers and customers. At this workshop, empirical evidence on the deployment of related activities was presented from various perspectives. E-invoicing projects and initiatives of banks were presented and discussed.

In the first session of the workshop, Georgios Karageorgos from the European Commission, gave an overview of e-business related activities of the Commission’s DG Enterprise & Industry. Hannes Selhofer (empirica GmbH) presented recent results of the e-Business Survey 2005 by e-Business W@tch on the use of electronic invoicing and payments in different sectors. Andreas Stefanis from Pago eTransaction Services GmbH presented the results of the Pago Report 2005, which analysed user behaviour in e-transactions carried out through the Pago platform.

The second session featured current projects and initiatives in Greece. Sotiris Sirmakezis, Director of E-Banking at Piraeus Bank, gave an overview of the general development of electronic banking in Greece, and discussed the role of banks as service providers for e-invoicing and e-payment services. Yannis Charalabidis, Director of Strategic Business Development at Singular Software S.A., presented results of the PRAXIS project. Antonis Koukouritakis, Business Developer Manager at Information Systems Impact, focused on the role of intermediaries for the development and uptake of e-invoicing, and applications for the retail sector.

In the concluding key-note address, Peter Larsen Borresen from the Danish Ministry of Science, Technology and Innovation presented the legal and technical framework for e-invoicing for public procurement in Denmark. As of 1 February 2005, the new legislation stipulates that invoices to the public sector can only be sent in electronic format.
2 Major Points

Adoption of e-invoicing and e-payment activities among EU enterprises

In total, about 5% of all firms from the 10 sectors and 7 countries surveyed by e-Business W@tch in 2005 report to use ICT systems for electronically invoicing their customers. Similarly, about 5% use systems for billing invoices from suppliers electronically.

The use of systems for e-invoicing increases by company size. About 15% of large firms used ICT systems for electronic billing and invoicing in early 2005. Differences are not very pronounced by sector, though, with the possible exceptions of the IT services sector, which is a forerunner in electronic billing and invoicing.

These findings were presented by Hannes Selhofer, project manager of the European e-Business W@tch.

Electronic invoicing in the public sector: the Danish initiative

Many EU countries and regions have recently already launched e-invoicing initiatives in order to benefit from related opportunities. An outstanding example in this context is the Danish initiative, which was presented and discussed at the workshop by Peter Larsen Borresen from the Danish Ministry of Science, Technology and Innovation.

Since February 2005, Danish public authorities only accept digital invoices from their suppliers. This rather radical approach makes the Danish public sector a world leader in the field of e-invoicing. The goal is to save between 700 and 900 million Danish Kroner (94 to 120 million euros) per year. Processing invoices electronically is expected to reduce the average processing time per invoice. This should translate into staff reductions in the public sector.

As not all enterprises that provide services to the public sector have the technical facilities for e-invoicing, in particular small firms, they can send their invoice in the traditional way to a “national scanning agency” (NSA). Organisations which have been certified to act as an NSA will then scan the printed invoice and forward an electronic invoice (with the scan attached to it) to the respective public body.
Mr Borresen reported that the initiative, which had been planned and legally implemented within an extremely short period of time (in less than a year), was already showing positive and encouraging results, in spite of some minor problems in the beginning.

**Projects and activities of players in the e-payment market**

Andreas Stefanis from *Pago eTransaction Services* GmbH (Cologne, [www.pago.de](http://www.pago.de)) presented activities of his company and findings of the Pago Report 2005. This report is based on the analysis of around 20 million real purchase transactions which were processed through the Pago platform in the period from 1 January 2004 to 31 December 2004.

- Pago enables its clients to receive payments for their goods and services through electronic channels. Businesses can employ all internationally and nationally relevant payment methods. All payment transactions are processed through the Pago platform, which was established in 2000.
- Mr Stefanis presented interesting facts on *e-payment fraud*. He argued that e-commerce and e-payment fraud was rising, with cross-border fraud being 20 times higher than domestic fraud.

Sotiris Sirmakezis, Director of E-Banking at Piraeus Bank, discussed strategic implications of the current development for the future of the banking sector, and presented *"winbank"*, the electronic banking division of *Piraeus Bank*.

- Winbank's vision is "to create a set of state-of-the-art services that will establish winbank as the best "electronic bank" in Greece, achieving the highest penetration in Piraeus Bank's customer base." Payment services include credit & debit card clearing & settlement, internet banking, and paypal-like services for micro-payments.
- The number of companies that used services offered via the winbank paycenter has nearly doubled from 2003 (380) to 2004 (730). Payment volumes have more than doubled in the same period.

Yannis Charalabidis, Director of Strategic Business Development at Singular Software S.A., presented results of the Greek *PRAXIS project* ([www.praxisnet.gr](http://www.praxisnet.gr)). Praxis has studied emerging systems and services for e-invoicing and B2B collaboration in Greece. Mr Charalabidis pointed our some key issues that have to be addressed so that SMEs can successfully engage in B2B transactions via the internet:

- Application-to-application (A2A) integration is seen as a key aspect, also for SMEs, since it is a requirement to realize everyday transactions with minimum effort and maximum security and reliability.
- The framework for such an interoperability improvement (leading to the necessary processes, the XML schemes, and the relative infrastructure) is practically non-existent in most of the EU and CEE countries.
- A2A integration and Enterprise Application interoperability must engulf systems of the enterprises, the government and the intermediaries (e.g. banks, IT service providers, consortia).

Antonis Koukouritakis, Business Developer Manager at *Information Systems Impact* in Greece, made the point that "e-invoicing will happen sooner if companies embrace the use of third party services". He presented "i@connect" as a solution offered by his company.

- Mr Koukouritakis explained the strategy of his company to focus on the retail sector first, as it is a mature sector with a large number of exchanged invoices and trading companies. Here, critical mass can be achieved with a high visibility.
- IS Impact argues that e-invoicing will benefit both the retailer and the supplier, because of the cost savings involved for both parties.
- Currently, 7 retail chains and 111 suppliers are participating in "i@connect". The number of electronic invoices processed per month was about 40,000 in May 2005. It is expected to more than double by the end of 2005, and then again by the end of 2006 (reaching about 200,000).
3 Conclusions

The main driver to implement applications for e-invoicing and e-payment processes is the opportunity to save process costs. The saving potential will largely depend on the number of invoices that have to be processed. There was broad agreement among presenters and discussants that for companies, organisations and public authorities which have to process a very large number of invoices as part of their day-to-day work, e-invoicing promises substantial benefits.

It is also anticipated that e-invoicing should normally lead to a win-win situation for both parties involved, i.e. the invoicing entity and the receiving entity. This is a main reason why e-invoicing is such a highly attractive proposition for the public sector. By adopting e-invoicing itself, and thus acting as role model and promoting adoption in the private sector, the public sector may hope to achieve two important objectives at the same time: save costs in public administration, while improving the competitiveness of the local / regional economy. The Danish example, as well as the Greek business initiatives presented at the workshop, are projects that have been launched based on this rationale.

The high interest of the financial sector in this event, and the intensive discussion on bank-related topics, indicated that banks are aware of their critical role as intermediaries in this development. However, there are new intermediaries which specialise in providing e-payment related services. A noticeable example presented at the event was Pago eTransaction Services GmbH. Thus, the configuration of existing and new players in this emerging market is not yet clear.

How fast and to what extent e-invoicing will be adopted in the public and private sector in different areas of Europe will also depend on many other parameters, such as technical preconditions, industry structure, and cultural aspects. The development of favourable technical framework conditions will require some coordination of activities among stakeholders. In particular, the analysis, design and development of protocols, electronic data formats and messages for the interoperability of applications should be promoted, based on international standards (e.g. XML, ebXML, ebisXML, EC/UN), and considering legal and statutory frameworks for electronic transactions.

Policy is well advised to monitor the developments in different countries and to identify successful practices, as well as the required framework conditions for implementing them.1

4 Further information:

Workshop proceedings (agenda, presentations, list of participants) are available for download at the e-Business W@tch website (www.ebusiness-watch.org). For further information, questions and input you are welcome to address:

e-Business W@tch
c/o empirica GmbH
Oxfordstraße 2
53111 Bonn - Germany
Tel +49(0)228-98530-0
Fax +49(0)228-98530-12
info@ebusiness-watch.org

1 The e-Business Support Network (www.e-bsn.org) of the European Commission, DG Enterprise & Industry, has recognised the importance of e-invoicing and started relevant activities in this domain. See presentation by G. Karageorgos on e-business related activities of the Commission’s DG Enterprise & Industry.