

**Electronic security  
payment, a necessity for  
Moldova**

**ICT summit 2010,  
Chisinau**

Jean-Marie Giraudon  
JMG Consulting  
France

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# Agenda

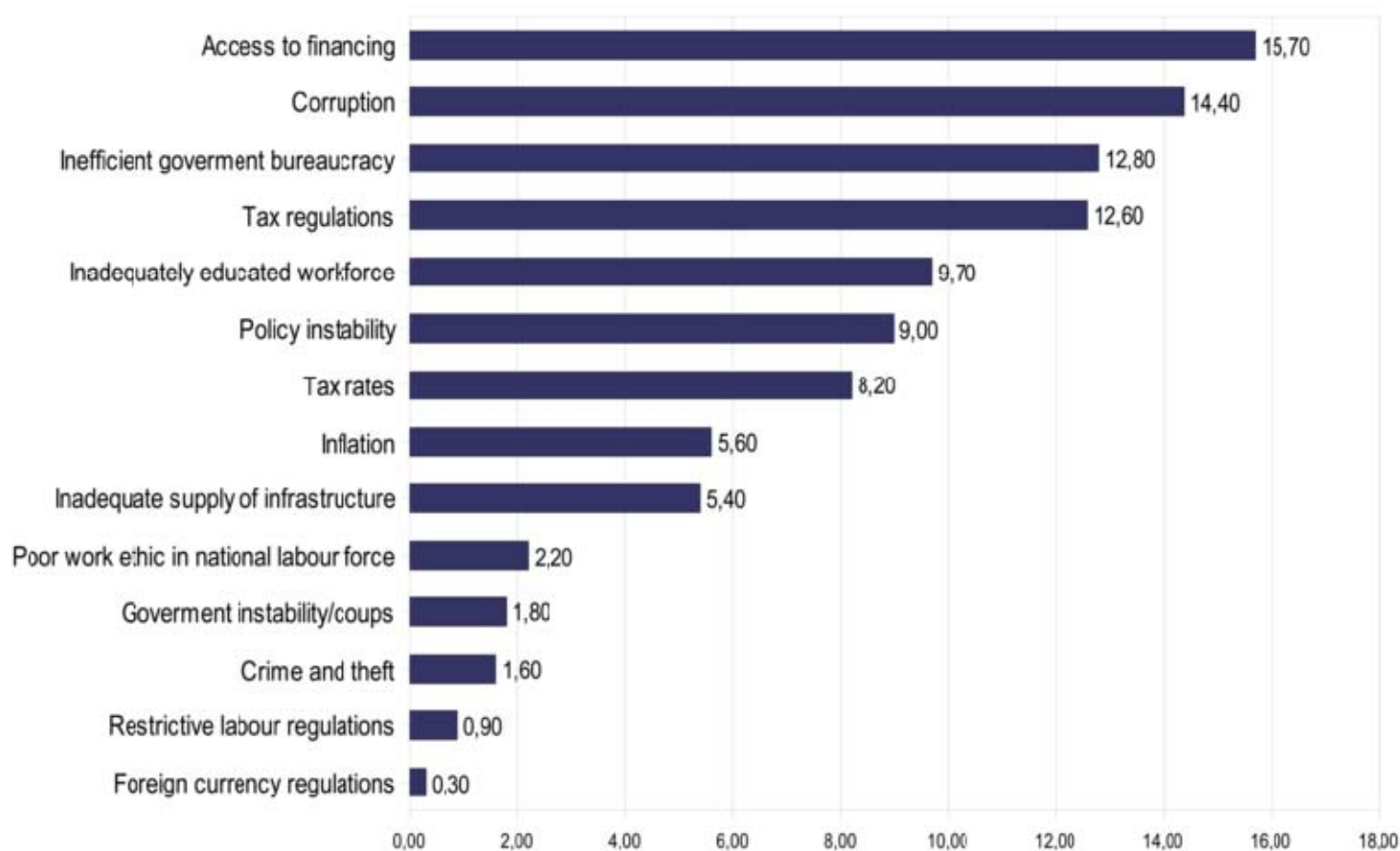
- **The perception of Moldova from a European perspective...**
- Online business, the challenges
- Online payment, security advices
- Understanding the online payment process
- Conclusion

## The perception of Moldova from a European perspective, a mistake of the technocracy

- Where does the country is located ?
- In the best case: Isn't it a region of Romania?
- A country under trouble with Russia.
- Certainly a high level of corruption.
- An unknown country with a low level of competences.

## Doing business

According to the [Global Competitiveness Report<sup>\[1\]</sup>](#), the Most Problematic Factors for Doing Business is the [access to finances](#), [corruption](#) and [bureaucracy](#).



From a list of 14 factors, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

# Despite appearances, some « adventurers » have moved in

## The main verticals are:

- Telecom
- Financial sector
- Pharma
- Agro, food and beverage
- SW Industry

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## Online business, the challenges

- What is the status of the art regarding the law ?
- Digital signature?
- Payment system?
- E Commerce?

# Online business, the challenges (2/7)

## What is the status of the art regarding the law ?

- Stability of Pact for South-Eastern Europe 2002
- March 19, 2004 Presidential Decree n° 1743-III for national strategy on Information Society Technologies for Development 5ISDT)
- 8th of June 2004, guiding principles are defined by Government, a National committee is created
- EU-Moldova action plan and the e-Governance Concept is accepted (EGPERSP)
- The National Strategy for Building of Information Society is approved by the Government in March 2005
- In January 2006, the Regulation on the realisation mechanism for the « Electronic Moldova » action plan is adopted as a framework for future development

# Online business, the challenges (3/7)

## Digital signature ?

- In July 2004, two key laws were adopted: the Law On e-Commerce and the law on Electronic Documents and Digital Signatures. These laws establish the legal framework for electronic documents and digital signatures.
- In 2005 the Regulation regarding the modality of creation and organisation of the Activities of Public Key certification.
- Electronic signature is recognized has the same legal poiver and effect as a paper document.
- The laws also provide definitions for terms such as: electronic document, digital signature, certification centres and liabilities. The liabilities of all participants, including certification centres, involved in the development of electronic signatures are also specified.

# Online business, the challenges (4/7)

## Digital signature ?

- The laws stipulate that the Government regulates the certification procedure and that certification centres will be licensed under the Licensing Law. The laws appear to permit the functioning of an electronic document system and to contain the necessary minimal conditions listed in EU Directive 1999/93/EC on a Community Framework for Electronic Signatures.
- Three further important regulatory documents were approved in April 2006.
  - Regulation of the Centre for Certification of High Level Public Keys
  - the Regulation regarding the Procedure of registration of the Centres for certification of Public Keys
  - Special Conditions for the Activity of Centres for Certification of Public Keys
- On September 14, 2006, the first Public Key Certification Centre was opened in Chisinau by the Centre for Special Telecommunications (CST). It issues keys for public servants working in public administrative institutions.

# Online business, the challenges (5/7)

## Payment system ?

- The 2005 e-Commerce Law establishes that goods and services must be paid for in accordance with international payment systems and Moldovan legislation. Integration into the international banking system has helped bring about the use of electronic payment systems. To ensure a procedural framework for the use of electronic payment systems, the National Bank of Moldova (NBM) approved Regulations 58/11-02 of 25 May 1997 regarding the organisation of bank card payments by commercial banks in the Republic of Moldova, and Regulation 404 of 25 December 1998 on the numbering of cards issued by the banks authorised by the NBM.
- The NBM is the owner and the manager of an interbank payment system, which makes transfers of electronic credits both on behalf of participant banks and on behalf of their clients. With regard to card payment systems, the NBM has taken on the role of general regulator of the development and supervision of consumer rights.
- To implement this role, the NBM creates regulations, analyses risks and trends, and performs spot audits regarding the application of procedures.

# Online business, the challenges (6/7)

## Payment system ?

- The NBM has one more important function: it uses its interbank payment system to make all daily closing transfers of amounts collected by the commercial banks from card transactions
- A Regulation from the Administrative Council of the NMB was adopted in February 2005 and entered into force on 30 June 2005 (Official Gazette nr.98-100 of 22 July 2005).
- A new Regulation Regarding Automated System of Inter-bank Payments was approved by the National Bank of Moldova on March 2, 2006, entering into force on 21 April 2006. This establishes rules and procedures for inter-bank payments through a new automated system on the territory of the country.
- On March 23 2006, Moldcell launched a service for clients who also are Eurocredit bank account holders. This service allows them to use on-line banking services (utility and other bill payments, balance information, etc) through the WAP site Telebank

# Online business, the challenges (7/7)

## eCommerce ?

- e-Commerce is still in the early phases of development in Moldova.
- There are no statistics regarding the approximate turnover of e-commerce divided between B2B and B2C.
- Price for domain name registration could be a brake
- Electronic payment mechanism is very poor and represent around 3% of all retail sales in Moldova.
- Security could be considered by the international community as very poor.
- Poor confidence in the Moldovan credit/debit card related with solvability is also a negative factor.
- New foreign players as Société Générale will improve the image of the country.
- Political stability is needed.



- E-mail (74.0%) and webpages (28.9%) were the two primary mechanisms by which the fraudulent contact took place
- While most were from the United States (92.4%), IC3 received a number of complaints from Canada, United Kingdom, Australia, India, and France



Globally, in 2008, most scammers operated from the United States. The U.S. still held a huge lead in active internet users then, a gap that has since closed considerably. In 2008, China and the U.S. each have approximately 200 million internet users, and most of the world has grown commensurately. As the user populations have grown abroad, so have their scammer populations. Several countries stand out in 2008 as having disproportionately huge populations of scammers: Nigeria, Romania, the Netherlands and China. Lottery and fake money transfer (AFF) frauds seem to be the specialty of the Nigerians. The United States still leads in Identity Theft and Phishing/Spoofing frauds.

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# Online payment, security advices (1/5)

## Introduction

- Recently publicized accounts of credit card fraud on the Internet are no doubt alarming to consumers and merchants alike. There is no denying that Internet-based commerce is permeating society at a rapid pace. So what can merchants do to ensure the highest level of security to their online customers?
- All too often the blame for security breaches, which put consumers' credit card data in the hands of criminal hackers, falls squarely on the shoulders of the transaction software provider.

# Online payment, security advices (2/5)

## What eCommerce Merchants should not do?

- Do not assume that your e-payment software provider is a security expert. Independent resellers with little or no technical expertise often sell credit card processing software without knowledge of security issues.
  
- Do not treat the selection of payment processing software as an auxiliary item. How customers pay for your goods and services is essential to your success, so the system that supports these transactions should be regarded as such. If your web development firm is not well versed in security issues, choose another firm or demand that you choose your own payment-processing vendor.

# Online payment, security advices (3/5)

## What eCommerce Merchants should do?

- Enlist the services of a credit card transaction specialist with expertise in Internet, software, hardware and data security.
- Invest in firewall security, but DO NOT rely on this single defense mechanism to protect you from every possible threat.
- Limit all anonymous connections to your web server.
- Disable directory scanning.
- Store customers' credit card data on a non-viewable directory, preferably on a separate server than that of your web pages.
- Avoid file-based credit card processing software.
- Look for direct sockets-based credit card processing software.

# Online payment, security advices (4/5)

## What eCommerce Merchants should do?

- Prevent non-trusted employee's physical access to web server areas.
- Be aware that your shopping cart and other web-based software may maintain credit card data, and thus be vulnerable to attack. Secure the data in these applications as indicated above.
- When hosting the e-payment software in-house, create a set of security and policy procedures and follow them diligently and to the letter. Your e-payment gateway provider should be able to help you. If they cannot, re-think your choice. When using an out-sourced e-payment gateway system, ask any company you choose about their gateway's security policies and procedures. Remember, this is money we are talking about.

# Online payment, security advices (5/5)

## What online shoppers should do?

- Obtain a credit card account with a moderate limit to be used for online purchases only.
- Check your card statement regularly and report suspect transactions immediately.
- Realize that, purchase for purchase, online shopping has been proven to be safer than traditional mail/telephone order or face-to-face shopping.

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# **Understanding the online payment process (1/2)**

**When I use a payment card to buy online, how do I know how safe my payment card information is?**

Generally, if you use a secure browser, transmission of your payment card information will more likely be safe. A secure browser is one that supports a security measure called SSL (Secure Sockets Layer), which encodes and protects your data before it leaves your computer. Most major browsers (for example, Internet Explorer and Netscape Communicator) support SSL.

Also:

- Think about limiting your transactions to Web merchants that use security measures like SSL. To verify this feature, make sure the Web address (URL) for the order form begins with “https:” instead of “http:”

# Understanding the online payment process (2/2)

- Prior to submitting payment information, look for an icon (for example, a closed padlock or a key) on the bottom of your computer screen to signal that your transmission will be secure.
- Remember that messages sent by e-mail do not benefit from special security protections, so be wary of including payment card information in an e-mail.
- As always, before you provide your payment card information online, check the Web site's privacy and security policies. Look for an explanation about what personal information the site collects, how that information is used, and whether the information is shared with other companies working with the Web site, marketers, or others. If you cannot find a privacy policy, consider whether you want to do business with that company.

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- Law must moved forward to offer clear and clean environment to the entire value chain from suppliers to users covering B2B2C,
- The telco network must be deployed on all territory to offer the equivalent access to citizens wherever they are located in the country,
- Encourage public utilities (e.g. electricity, gas, water utilities, fixed and mobile telephone companies) to create on-line bill payment services that will eliminate additional fees practiced by commercial bank that act as intermediaries between utilities and final users.
- Educate suppliers to propose some secured website to reduced fraud and give confidence to value chain actors,
- Demonstrate regularly to the international community that Moldova take some actions to fight against fraud with appropriate systems,

**The number of Internet users is rather small in Moldova compared to neighbouring countries. Internet usage is mostly related to work activities. However, the number of Internet users in the last 5 years has tripled, particularly in the area of search of information on goods and services.**

**Areas like on-line purchasing on services and products, e-government and on-line banking are less developed in Moldova but the demand for these areas is growing.**

**Therefore, relevant Internet resources need to develop fast in order to meet this growing demand.**

**THANK YOU**