

The Impact of Information Technology in Electronic Contracting

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Abstract

With the expansion of global communication the commercial world has changed its proceedings. The Internet has played a crucial role in the development of new ways of doing business, by creating a major global market. E-commerce is one of the main subjects discussed in legal environments last years. The need to develop legal elaboration with the same pace as the technology innovation brought a legal revolution in electronic commerce. In Albania the elements of this revolution switched sides: the legal regulation came before the practical usage. The Albanian legislation has responded to this inclination by creating a complete legal framework regarding electronic commerce. One of the most important legal aspects of the electronic revolution is the development of distance contracts. Distance contracts have the same legal validity as the traditional paper contracts, but as we will show the implementation in practice of this principle is by all means more complicated. Information technology is becoming one of the most influencing factors in the global economy structure, so its development will inevitably help Albania in having a smoother transition. In this paper after a theoretical discussion of distance contracts and their legal validity we aim to investigate the way in which information technology regarding electronic documents and especially electronic signature, influences the development of new ways of contracting, with a special focus regarding the increase of public trust in these innovations.

Keywords: *E-business, distance contracts, information technology, transition economy*

I. Introduction

Industrial and service society is changing to an even more progressive form, the information society, reflected in the development of digital economy. The paper world is transforming in a digital world and electronic contracts are replacing paper contracts, resulting in cost reduction and major efficiency in business. The law has defined electronic commerce as the activity performed through the exchange of electronic

documents for the sale of goods and services.¹ The disappearance of paper bills necessitates the creation of new mechanisms adapted to the new technologies, in order to support and bring security to electronic transactions. Several surveys in different countries, consider the lack of public trust in electronic contracts as the main obstacle for the development of electronic commerce (Gisler at. el 2000). Without public trust the new economy will not be able to unfold its full potential impeding the society to profit from the new technology. Confronted with this reality some authors believe that inability to build up trust for electronic contracts will bring the need to create a new concept for the exchange of goods in the digital age.

Until recently, the economic theories have recognized and have supported the interpretation and the analysis of only two factors of production: work and capital. This point of view has already changed, because the Information and knowledge are replacing capital and energy as basic factors of wealth and prosperity (Civici 2007). Considering the long and exhausting transition of the Albanian society, information technology would be an invaluable asset to overcome this phase. IT innovations are introduced quite rapidly in Albania and the Albanian Government has approved a modern legal framework regarding electronic commerce. The problem is that these innovations are not used in their utmost capabilities, in order to ensure economical development. They are confronted with institutional malfunction, high costs and a public mistrust, impeding the proper use of innovation technology in electronic commerce and electronic contracts.

The target of civil law rules is to find appropriate solutions for coordinating legal and technical aspects of electronic contracts. Considering that the law should never be an obstacle to the progress, many countries have framed legal and administrative tools to regulate electronic commerce. (Obando 2001) Internal legislation regarding e-commerce is very important, but its existence holds a conceptual problem: These norms regulate internally Internet, which is in its core international and borderless. The lack of harmonization in the rules applicable to electronic commerce constituted a barrier to international trade, the UNCITRAL² framed a Model Law on Electronic Commerce in 1995, as the first step in inserting electronic commerce in legal regulations. In 2005 the same Commission prepared the Convention on the Use of Electronic Communications in International Contracts, which would further improve the unification of international trade laws; however it is ratified only by two countries.

¹ Law no. 10128, dated 11.05.2009, "On electronic commerce", article 3/f.

² United Nations Commission on International Trade Law

2. What is E-Commerce?

Even today, some considerable time after the so called 'dot com/Internet revolution', electronic commerce (e-commerce) remains a relatively new, emerging and constantly changing area of business management and information technology. In order to understand electronic commerce it is important to identify the different terms that are used, and to assess their origin and usage. According to the editor-in-chief of International Journal of Electronic Commerce, Vladimir Zwass, 'Electronic commerce is sharing business information, maintaining business relationships and conducting business transactions by means of telecommunications networks'³. He maintains that in its purest form, electronic commerce has existed for over 40 years, originating from the electronic transmission of messages during the Berlin airlift in 1948.⁴ From this moment, electronic data interchange (EDI) was the next stage of e-commerce development. In the 1960s a cooperative effort between industry groups produced the first attempt at common electronic data formats. The formats, however, were only for purchasing, transportation and financial data, and were used primarily for intra-industry transactions.

With the advent of the Internet, the term e-commerce began to include:

- Electronic trading of physical goods and of intangibles such as information;
- All the steps involved in trade, such as on-line marketing, ordering payment and support for delivery;
- The electronic provision of services such as after sales support or on-line legal advice;
- Electronic support for collaboration between companies such as collaborative on-line design and engineering or virtual business consultancy teams;

Some of the definitions of e-commerce often heard and found in publications and the media are:

- *Electronic Commerce (EC) is where business transactions take place via telecommunications networks, especially the Internet*⁵.
- *Electronic commerce describes the buying and selling of products, services, and information via computer networks including the Internet*⁶.

³ V. Zwass, 'Structure and macro-level impacts of electronic commerce: from technological infrastructure to electronic marketplaces', <http://www.mhhe.com/business/mis/zwass/ecpaper.html> (accessed May 2001).

⁴ T. Seideman, 'What Sam Walton learned from the Berlin airlift', Audacity: The Magazine of Business Experience, Spring 1996, 52–61

⁵ E. Turban, J. Lee, D. King and H.M. Chung, "Electronic Commerce: A Managerial Perspective." Prentice Hall, 1999.

- *Electronic commerce is about doing business electronically*⁷.
- *E-commerce, ecommerce, or electronic commerce is defined as the conduct of a financial transaction by electronic means*⁸.

There are five different types of E-Commerce:

- *Business to Consumer, or B2C*: as the name suggests, it is the model taking businesses and consumers interaction. Online business sells to individuals. The basic concept of this model is to sell the product online to the consumers.
- *Business to Business or B2B*: refers to electronic commerce between businesses rather than between a business and a consumer. B2B businesses often deal with hundreds or even thousands of other businesses, either as customers or suppliers. Carrying out these transactions electronically provides vast competitive advantages over traditional methods. When implemented properly, e-commerce is often faster, cheaper and more convenient than the traditional methods of bartering goods and services.
- *Consumer to Consumer or C2C*: stands for Consumer to Consumer. It helps the online dealing of goods or services among people. Though there is no major party needed, the parties will not fulfill the transactions without the program which is supplied by the online market dealer such as eBay.
- *Peer to Peer or P2P*: It is a discipline that assists people to instantly share related computer files and computer sources without having to interact with central web server. This kind of e-commerce has very low revenue propagation as from the starting it has been tended to the release of use as a consequence it is sometimes caught involved in cyber laws.
- *M-Commerce*: deals with conducting the transactions with mobile's help. The mobile devices consumers can interact with each other and can lead the business. Mobile Commerce involves the change of ownership or rights to utilize goods and related services.

3. What is E-Contract?

Electronic contract is the one stipulated through the utilization of some electronic tool, which serves to express the will of the contracting parties.⁹ According to Article

⁶ www.whatis.com/ecommerce (accessed September 2000).

⁷ P. Timmers, "Electronic Commerce – Strategies and Models for Business-to-Business Trading." John Wiley & Sons, 2000.

⁸ http://www.straight-on.com/ecommerce_definition.htm (accessed September 2000).

659 of the Albanian Civil Code the contract is a legally agreement, stipulated by the parties in order to create, change or annul a legal relationship. It is important to notice that the expression, “electronic contracts” does not refer to a new type of contracts in the technical and legal meaning, but it refers to those contracts, of any kind, stipulated through electronic means.

The main feature of electronic contracts is that they have the same legal effects as traditional contracts, and validity or enforceability can not be denied to them on the ground that an electronic message is used during its stipulation. The general principles of contracting law will be applied even to e-contracts, but how this will be practically possible is not quite clear, considering the fact that the law limits itself only in this definition and that the practical application is yet insufficient.

During the stipulation of electronic contracts the parties are not physically present and the will is expressed through electronic media. This decisive factor brings the need to analyze the conditions of the ordinary contract, transposed in the electronic one.

1. **Legal capacity** is related with adult individuals' ability to hold rights and duties. In e-commerce, considering that the parties do not meet physically, it is important that they are sure about each-others identities and legal capacity. The information technology has developed different systems, which aim at securing the users identity. Some of the systems of identification that can be used are¹⁰: Electronic cards; PIN numbers or passwords; voice recognition; smart card or token; Biometrics data of the user, such as fingerprints, voice, retina iris, etc. Digital signature is for the moment the most secure technology to guarantee the identities of the parties in e-contracts. Considering that the combination of two or more of these tools can guarantee a more secure authentication, the main problem remains the high cost, making them not very appropriate for general public use.
2. The **mutual assent** is necessary in order to create legal obligations for the parties, meaning that they must express their consent, also called the concurrence of the wills. (Semini 2008)
3. For the stipulation of the contract other necessary conditions are the existence of a legal contracting **object** and a **motive** that is the reason that instigates the parties to stipulate a contract and to undertake legal rights and obligations.

⁹ C.A.C. Vera, “El Contrato Electronico”, Revista Jurídica.

¹⁰ *Electronic Contract Administration Legal and Security Issues Literature Review*, Report No. 2005-025-A, pg.39.

4. The Stipulation of the contract

The conclusion of a contract is a process consisting on two main phases, *offer* and *acceptance*. In electronic contracts the will is expressed through the usage of electronic media or tools, but they are simply transmitters of the contracting parties' will, and don't hold a will of their own. The Convention on the Use of Electronic Communications in International Contracts recognizes as valid and enforceable even the contracts that are formed by the interaction of an automated message system and a natural person, or by the interaction of automated message systems, despite the fact no natural person reviewed or intervened in each of the individual actions carried out by the automated message systems.¹¹

The *offer* is the unilateral declaration of the will of one party to stipulate a contract, addressed to the other party and it must contain all the elements of the contract. It is possible to withdraw an offer, if the withdrawal is done before or in the same time as the offer. In electronic contracts this is a remote possibility considering the fact that through electronic communication the offer is sent in a really short time. There is also another type of offer, called *public offer*. The public offer is a proposal to conclude a contract which is addressed to an ensemble of persons, which are potentially interested in the offer. It must contain all the fundamental elements of the future contract; otherwise it is just an invitation to treat. This distinction is very important because if the invitation to treat is accepted, it is not compulsory, but if the offer is accepted, the parties have stipulated a contract, which is binding and has the force of law for the parties. The utmost of electronic contracts are stipulated by means of accepting a public offer. These are called adhesion contracts and the person who accepts this kind of offer cannot influence its content. In these contracts, the consent between the parties is formed instantly, reducing the importance of contractual negotiations.

The **acceptance** means that the party who received the offer accepted all the proposed terms and conditions. In any case the offer is submitted to changes, the answer is considered a refusal and a new offer. The precise point in time when the offer is accepted is the moment that the contract is formed and the parties are legally bound to each-other.

The law on electronic commerce denotes that the offer is considered accepted after the user receives an electronic message containing the declaration of the receipt and the acceptance of the offer.¹² The establishment of this rule is related with the need to enhance legal security in transactions. Some countries use this rule only in cases of e-

¹¹ The Convention on the Use of Electronic Communications in International Contracts, Article 12.

¹² Law no. 10128, dated 11.05.2009, "On electronic commerce", article 14/2.

mail contracts, while in the contracts stipulated through web pages, this rule is not applied.¹³ Albanian law does not make this distinction, with the clear intention of giving the necessary guarantees for electronic contracts.

Referring to the way in which the offer and the acceptance are expressed, electronic contracts are of different types. The most popular are:

1. **E-mail contracts**, which are the simplest form, stipulated by the exchange of text documents via electronic communications such as email.
2. **XML-Contracts**: Xtensible Markup Language (XML) structures information in documentary systems ranging from financial reports to medical records and business contracts. XML can reduce transaction costs but also limit the range of contractual expression and redefine the nature of law practice. XML pioneers envision structuring narrative contract texts into modules that would make the contracting process swifter and yield more efficient terms by purging excess complexity without oversimplifying. While appealing, there is some risk that such tools could mechanize the meaning of contractual terms with unintended consequences. This is because XML is a language. As such, using XML as a contracting tool could produce a backfire, as by rigidly limiting the possible range of contractual expression. The stakes of applying XML in narrative contracting are thus high and justify this Article's systematic inquiry into its substance and the procedures used to develop it¹⁴.
3. **Click –wrap** are contracts formed in the web page of the offeror. The purchaser has the opportunity to see the terms of the contract before giving his assent, and clicks “I agree” before the transaction continues and the installation proceeds. This feature greatly diminishes the possibility of disappointed expectations. Once the transaction is completed, the issuer of the contract ordinarily sends an email to the customer confirming the details of the transaction.¹⁵
4. **Shrink-wrap** refers to those contracts, in which the acceptance of the contract is done in the moment the user opens the package “shrink-wrap”. In other words, shrink-wrap is the agreements usually used to sell software products. This accord determines that by opening the package “shrink-wrap”, the terms

¹³ J.J. Obando, Los contraltos Electronicos y Digitales, [REDI, Revista Electrónica de Derecho Informático, Núm. 39, Octubre 2001](#)

¹⁴ Jane K. Winn, Making XML Pay: Revising Existing Electronic Payment Law to Accommodate Innovation, 53 SMU L. REV. 1477 (2000).

¹⁵ *Rudder v. Microsoft*, Case, Ruth Orpwood, ‘**Electronic Contracts: Where We’ve Come From, Where We Are, and Where We Should Be Going**’, *International In-house Counsel Journal*, Vol. 1, No. 3, Spring 2008

of the contract are accepted.¹⁶ The main problem of this contract is that the terms are not made available to the purchaser until after he pays, being inconsistent with general principles of contractual law, that the parties should have knowledge of all contractual terms.

The place where the contract is formed. In the world of information technology, the meaning of “place” has changed, being Internet a borderless and everywhere accessible tool. When a contract is stipulated electronically, it may be difficult to determine the place where the contract was formed, meaning that if the parties are stationed in different places than the contract can be considered stipulated on both places. Contractual law considers important the determination of the place where the contract is formed, because in case of disputes it provides a specific court with jurisdiction.

In e-mail contracts it is possible to localize the computer’s position for both parties. Meanwhile if the contract is formed in web pages by clicking a button, it is practically impossible to determine the physical position of the parties. Based on the principles of civil law the contract is considered to be formed in the seat of the legal person or individual, meaning that the place the contract is formed can not be a temporary or a transit residence.¹⁷

The determination of the place where the contract is stipulated will have minimal legal relevance where an appropriate jurisdiction and governing law clause is incorporated into the contract, which will specify the parties’ choice of law and jurisdiction.

The time. Once the offer has been accepted it becomes irrevocable and the parties from this moment on are legally bound by the contract, giving greater relevance to the specific point in time, where the contract is stipulated. Setting the time helps the parties or the court to determine where the mutual right and obligations of the parties begin; see if the parties have ability to act at the moment; which party will bear the burden of risk in case the goods are lost or damaged.

The law on electronic commerce determines that: “*The time when the electronic document enters in the computer system of the receiver. . . , is considered as the time of the reception of the electronic document.*”¹⁸ In this case the real problem is the likelihood of voluntarily changes in the computer time, bringing forth the need to develop security systems, which could indicate without any doubt the real time of the

¹⁶ J.J. Obando, Los contratos Electronicos y Digitales, [REDI, Revista Electrónica de Derecho Informático, Núm. 39, Octubre 2001](#).

¹⁷ F.C.O.Garcia, “Da Validade jurídica dos Contratos Eletrônicos”, Jus Vigilantibus, [www.jusvi.com](#), June 2002.

¹⁸ Law no.I0273, dated 29.04.2010, "On electronic document", article 15/2.

contract formation. Digital time stamp serves exactly to this purpose. This new tool is regulated by the law “*On electronic signatures*” which determines that: *Qualified time stamps are electronic certificates, released by an offeror of the certifying service, that confirms the electronic data are presented in a specific time.*¹⁹ Time stamps are special kind of digital signatures created by a time stamping authority attaching the current time, date and identification of the owner to the hash value of the electronic record. A digital time stamp establishes the existence of an electronic record at a particular point of time.²⁰

Most of contracts can be proved before the court with any possible tool. The difficulty in these cases is related with the determination of parties' rights and duties. For this reason it is better to store copies of e-contracts in electronic support systems. Albanian law requires the provider to specify among other things if he will archive the contract.²¹ This provision means that the contract's archiving is not obligatory, even for a short period of time. A safe and effective method in this case might be to use an external registry to preserve e-contracts for a specific period of time. The register will be administered by third parties, not participating in the contract making possible to improve the safety and increase the public confidence in e-commerce.

5. Conclusion

The further development of electronic commerce in Albania is related with the further spread of Internet usage, and also with the creation of a safe electronic environment. According to the latest estimates by AKEP the number of families that have access in broadband Internet is about 110 thousand, approximately 13.7% of households, and is estimated to be round 10.000 business subscribers. There is an increase in Internet access confronted with previous years. This will reflect in the use of various electronic services among which the electronic commerce and electronic contracts.

During the process of contractual relation, every act of the parties brings legal consequences. This fact shows the importance of the security of IT tools in electronic contracts. In the 21st century is obvious that e-commerce is the future of trading. In a global world which is characterized by interaction between the countries, to stay aside means to stay behind.

One of the ways that government can use to avoid the problems arising from the jurisdiction disputes is legal harmonization, making worthless the determination of the

¹⁹ Law no.9880, dated 25.05.2008, "On electronic signature", article 3/14.

²⁰ *Electronic Contract Administration Legal and Security Issues Literature Review*, Report No. 2005-025-A, pg.54.

²¹ Law "On electronic commerce", article 13/d.

competent court or law. The ratification of the Convention on the Use of Electronic Communications in International Contracts, in 2005, would mark a positive step in this direction. The EU directive on this subject serves to the same purpose, being the guide in which member states have based their own legislation.

IT should focus its research in two parallel dimension: in the new ways the parties can express their will for the stipulation of the contracts, taking in account not only the speed and convenience, but of primary importance should also be the security. Currently the most common system of security in this area are the digital signatures, which in Albanian are not yet spread. Efforts should focus on tools which are at low cost and more practical in their usage, so they can be used by every one, not only IT specialists.

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