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**"The Impact of Information and Communication Technologies Systems on Global  
Electronic Commerce: it's Application through Ecuadorian Law"**

Research done in order to achieve the  
Bachelor's Degree in International Studies,  
Bilingual mention in Foreign Trade.

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## **DEDICATION**

I dedicate this graduation work to God for allowing me to reach this important moment in my professional life, my parents Sergio and Vilma for giving me unconditional support throughout my journey and my teachers for their knowledge imparted.

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## INDEX OF CONTENTS

DEDICATION.....	ii
ACKNOWLEDGMENT.....	iii
INDEX OF CONTENTS .....	iv
SUMMARY .....	vi
ABSTRACT .....	i
INTRODUCTION.....	2
CHAPTER I.....	4
CONCEPTS AND DEFINITIONS .....	4
1.1. Information and Communication Technology .....	4
1.1.1. Definition.....	4
1.1.2. Features.....	4
1.1.3. Communication Technologies and Globalization.....	8
1.2. The Internet.....	9
1.2.1. Definition.....	9
1.2.2. Features.....	10
1.2.3. Social Networks .....	12
1.2.4. Legislation on the Use of Internet.....	13
1.3. Global Electronic Commerce.....	14
1.3.1. Definition.....	14
1.3.2. Features.....	15
CHAPTER II .....	19
IMPACT OF THE GLOBAL ELECTRONIC COMMERCE .....	19
2.1. Global Influence .....	19
2.2. Influence in Ecuador.....	23
2.3. Marketing and Advertising in Electronic Commerce.....	27
2.4. Growth of EBay and Amazon .....	31
2.5. Future Evolution .....	34
2.5.1. Future Concepts .....	34
2.5.2. Future Legality .....	36
2.5.3. Personal Authentication on a Future Framework .....	38
CHAPTER III.....	40
ECUADORIAN LAW .....	40
3.1. Ecuadorian Law Regarding Communications.....	40
3.1.1. The Constitution.....	40
3.1.2. The Special Telecommunications Law .....	44
3.1.3. The Organic Disabilities Law .....	45

3.1.4. The Communications Law.....	46
3.1.5. The Code of Childhood and Adolescence.....	46
3.1.6. The Copyright Law .....	47
3.1.7. The Organic Law of Municipalities .....	47
3.2. The Legal Context of Electronic Commerce .....	48
3.3. Comparative Law at the Hispanic Level .....	57
CONCLUSIONS .....	61
RECOMMENDATIONS .....	63
BIBLIOGRAPHY .....	64

## **SUMMARY**

El trabajo de investigación que se presenta, maneja el tema: “El impacto de las tecnologías de la información y comunicación en el comercio electrónico mundial y su aplicación a la legislación Ecuatoriana”. Tiene como objeto determinar la introducción de las nuevas tecnologías en la actualidad de la vida en el país, definir el crecimiento del comercio electrónico en el mercado ecuatoriano su aplicación, sus puntos fuertes y sus falencias, y analizar la legislación actual para determinar su evolución y sus posibles debilidades.

La evolución de las tecnologías, la adaptación socio-económica sobre del comercio electrónico, la acomodación de las entidades financieras y el acompañamiento legal necesario, serán los elementos imprescindibles para adaptar las nuevas necesidades creadas. Los entes públicos y las empresas privadas tienen la oportunidad de crear sus nuevos espacios apoyados de estos elementos y evolucionar hacia un mercado en constante mutación.

## **ABSTRACT**

The presented research work, investigates the subject: "The impact of information and communication technologies systems on global electronic commerce and its application through Ecuadorian law." Its purpose is to determine the introduction of new technologies existing at present in the country, define the growth of electronic commerce in the Ecuadorian market, the implementation, the strengths and the weaknesses, and also analyze the current legislation to determine its evolution and possible gaps.

The evolution of technologies, the socio-economic adaptation of e-commerce, the accommodation of financial institutions and the necessary legal support will be the essential elements to accommodate new needs. Public agencies and private companies have the opportunity to create their new spaces supported by these elements and evolve in to a market in constant mutation.

## **INTRODUCTION**

The world of communication today is totally influenced by an internet technological phenomenon, a technology that has motivated recent changes in social, cultural and academic matters. The Internet and its functions has changed human beings and the world. Its beginnings lead us back to the late sixties. The world at that time was divided into two irreconcilable blocks: Capitalist and Socialist. The logistical and communication needs in the military sphere required a significant evolution to ensure their effectiveness in case of a nuclear war.

In 1969, a computer communication network was developed among four computers at different universities called ARPANET. Two years later the network expanded to 40 servers, and subsequently the growth was exponential, achieving the first international connection by 1973. Since then the growth became unstoppable and the practical applications of that experience have not ceased up to the present. In each implemented service, an immediate application was set as a practical response; the creation of two sale pioneer companies through the network: Amazon and EBay, and the emergence (as a reflex to meet an urgent need) of an application for card payment through PayPal, which facilitates the commercial transactions.

Thus, e-commerce developed changing the market dynamics and business expanded worldwide dramatically in a short period of time. It is expected to have three billion internet users by the end of 2014, 78% will belong to developed countries and a remaining 32% to countries in process of development. The broadband penetration will reach 32% of users. Today other phenomena are occurring such as cell phone growth which has reached its highest level.

Global electronic commerce has changed in a dramatic way in the last two decades. Nowadays access to information and communication technologies have influenced sales and business transactions online, transforming them into an essential tool for large and medium-sized companies, becoming one of the most important factors for growth and market competition.



These changes have of course influenced Ecuador. Private companies and public entities have engaged somehow with this process, assuming new technologies and adapting to the poor legislation that regulates the country. We are just entering the online mercantilist roleplaying phase and although it is increasing, it remains weak, and efforts to update the legislation and facilitate the mechanical contractual network are necessary.

The overall objective of this research is to determine and to analyze the importance of new technologies in global electronic commerce and their application in Ecuador.

The specific objectives, information and communication technologies, the growth of global electronic commerce, Amazon and EBay and laws of Ecuadorian constitution will be determined and analyzed.

To achieve these objectives all sources of information related to this topic will be investigated and used such as: books, legislative manuals, legal and technical publications, newspapers, magazines, blogs, digital media, films, surveys.

## **CHAPTER I**

### **CONCEPTS AND DEFINITIONS**

#### **1.1. Information and Communication Technology**

##### **1.1.1. Definition**

The technical and scientific advances in the areas of information and communication technology are the development of so-called ICT (information and communication technologies). The information treated and channeled into texts, images or sounds, allows the production and universal access as a set of technologies to help people. The leading elements of ICT are the computer components and especially the internet. This technology has redefined the means of knowledge and communication versatilities of human beings. Through computing, the electronic resources allow treatments and processes of the information. Additionally, telematics resources through the internet enable almost spontaneous access to information.

In general terms we could say that the new technologies of information and communication are those that revolve three basic ways: computers, microelectronics and telecommunications; but they turn around not only in isolation, what is more important is the interactive and interconnection part, which allows access to new communication realities. (Cabero, 2001, page. 73).

##### **1.1.2. Features**

One of the most distinctive teachings of ICT is the immateriality of its processes. The information is transferred to anywhere in an intangible way, visible but not tangible, and is immediately directed anywhere.

Another characteristic is its interactivity. Exchange of information between the user and the computer is possible. Various multimedia resources amplify the ability to interact facilitating a meaningful learning. By creating structured networks its nucleus is

maintained and evolves through interactivity of its members giving fluidity of production, consumption, experience and power.

Another feature is the interconnection. The use of various technologies enables the creation of new formulas such as e-mail, social networks and different IRC (internet relay chat).

Another property is the power of instantaneity. Communication and data transmission between two distant points is instantaneous since it travels at the speed of light. Therefore, anywhere in the world the information is immediate. For this property, terms such as information highways or cyberspace have been developed. The intangible element of data storage is the ingredient that makes the immediacy of its movement.

News can travel to all corners of the world; the images scroll instantaneously, articulating, narrowing territories, homogenizing knowledge, in a very fast process. It is the trigger for a new reality coined with a term of “global village” (Straka, 2007, page 15).

In the same way that the telegraph revolutionized the world, the immediacy of information through networks has changed our world to reduce the waiting time for any information when previously people had to wait days or months.

Another peculiarity is the high quality of image and sound. Advances in the digitization process promote the passage of information through sound, image and text formats. At the beginning you could only interact with a small amount of text or data in a small volume, but gradually it evolved so that now the quality of text and data transmitted is of high quality and reliability.

Libraries and librarians should be aware that information users are no longer pleased just with printed documents that are found in these sites. Their aim is to find complementary and more vivid documentary sources such as sound recordings, music, graphics, images, animation, photography and video footage, since nowadays it is possible to store these items in a memory of a computer to then modify, model, combine, manipulate, enhance and rearrange them in a wide range of attractive information. (UNESCO, 1997, page 219).

Another characteristic is digitization. It basically involves the transcription of analog signals to digital signals in order to facilitate the process of decoding, comprehension and translation. Thus, a higher similarity is achieved because the digital signal is more immune to interference waveforms (noise, distortion, periods, etc.) compared to digital.

The explosive penetration of wireless communications in the last decade in countries such as Africa, Asia and Latin America, has created opportunities to access the potential of ICT for sustainable development, which previously was not available. This digitalization condition of society has been the result of an evolutionary and convergent process between telecommunications and information technology (IT), particularly between the internet and wireless communications. (Serrano, Cabrera, Martínez, & Garibay, 2010, page 11).

Another feature is the effect of processing. The volume of data that the internet provides influences the mental procedures that users perform for the absorption of knowledge. There are some analysts who say that the downside of this overabundance affecting the quality, dispersion and distraction is specifically detrimental to the educational aspects. But there is also a positive aspect because an individual can build his/her own knowledge on a basis of enormous possibilities. The information not only abounds, but also enables the construction of knowledge more quickly and usefully.

The quantity of information that is available to anyone, can lead to a decrease in her critical capacity, and create boredom or confusion in the case of knowing how to search and process properly. Fortunately, tools - specifically called browsers have been developed; these facilitate the process a little and automatically select the volume, quality and type of required information (Abreu, 2003, page 88).

A special feature is the diffusion in all social sectors (culture, education, economy, industry, commerce, etc.). ICT are already tools for everyday use in all areas; their use has become massive in large and small companies, administrations, school, college, etc.

An additional resource is innovation. Improvement processes have accelerated since two decades ago. The growing technological renovation makes companies not launch products to market as fast, in order to obtain more incomes.

For example, with the appearance of the CD, there was a rapid evolution that brought the DVD, but it experimented a delay of years before its commercial diffusion, otherwise it would affect their income.

We are facing a volatile and rapidly changing social reality, forcing us to a permanent renewal of spheres and situations that so far seemed relatively stable or evolving in a slow and more controlled way. Fast technological development, and new forms of communication which we operate are setting and claiming a new educational space, rethinking the aims of education and teaching. (García-Valcárcel, 2008, page 9).

Another peculiarity is automation. It is a good synonym for time efficiency. Routine automated jobs by computer systems facilitate tasks, shorten processes, and increase productivity. One example is the automatic correction of writing, this is a tool that speeds up work and saves time.

ICT greatly simplify our tasks and we seem committed to a process of progressive independence from our own will. For example, the correction of orthographic errors is automated or correct parameters are set to perform certain photographs. (García & Ruiz, 2013, page 10).

Finally, there is much diversity in internet, is not unitary technology, but different technologies that allow us to fulfill several functions. So, the information must be transmitted unidirectional as news in an online newspaper, or those that allow interaction between various individuals, such as a video meeting.

Paraphrasing Jordi Adell, the University Jaime I of Castellón (Spain), through Estela Díaz's text:

Adell (1997) states that, the paradigm of the new technologies are computer networks. Computers, offer a lot of possibilities, but being connected increases their functionality by several orders of magnitude. By forming networks, computers are not only used to process information stored on physical media (hard disk, floppy, CD-ROM, etc.) in any digital format, but also as a tool to access information, resources and services provided by remote computers as a system of publication and dissemination of information as well

as a means of communication between humans. (Díaz, Alvarino, & Carrascal, 2011, page 70).

Therefore, although the technologies are presented as independent elements they are also able to interconnect and complement to each other, creating a communication network to increase efforts and technological functions of each one, producing a better result than the one individually developed.

### **1.1.3. Communication Technologies and Globalization**

The phenomenon of globalization supports and facilitates the integration of technological elements and social structures. Globalization is an economic, technological, social and cultural process involving all countries and institutions, standardizing markets, innovating industries, societies, cultures, intellectuals, political and social movements. This cluster that interacts and develops is global.

We cannot forget the globalization process that characterizes the entire capitalist economy, understanding globalization as its own tendency to market expansion.

This factor has been established as another important support for the flourishing of the "new economy". The process of globalization has led to a more rapid expansion of digital technologies, which has helped to further market expansion itself. The combination of these two facts, globalization and the massive incorporation of ICT in the economic sphere, has resulted in "Globalization". (Berumen & Arriaza, 2008, page 100).

Therefore, globalization is the operation of anytime and anywhere markets in the world. Here is where it can operate, offer, work and negotiate in many ways. ICT enabled the expansion of markets and has become globalized. This has created and is generating a change in business structures, forcing companies to form new strategies that make them more globally competitive.

The impact of ICT and globalization in everyday life and in the economy in general, is of such magnitude that we are just beginning to understand its effects, especially due to the increased interdependence among countries and citizens; a product of both processes, it is complex and multifaceted, and includes economic, cultural, social and political aspects. (Monge Gonzalez, Alfaro Azofeifa, & Alfaro Chamberlain, 2005, page 20).

The influence on the economic environment is evident. The demolition of trade barriers, the decrease in fees, the reduced transportation costs and the widespread use of ICT, have facilitated the proliferation of market transactions. These factors have caused the search for strategies to promote competitiveness, agility and prices of all stakeholders, not only in companies but also government agencies, social organizations, and consumers.

Consequently, not only the usage of globalized commerce can bring us good benefits.

The investment should be together in education and training to profit the most from these technologies, understanding that knowledge is one of the main determining factors of competitiveness of economies in the new digital era. In this context, the key element in education should be lifelong learning. It means, knowing how to learn continuously and would link the career of each individual. (Martin Urban & Tostes Vieira, 2001, page 93).

Therefore, these new opportunities offered by globalization, bring to mind the risk of exclusion that it involves. ¿Is access equal or are there more opportunities or difficulties depending on the economic status of the people? ¿Are ICT developed to include any physical or mental disability, or the law of the market makes it only be developed for the most privileged? These questions should be analyzed as soon as possible, since the road towards a globalized world has just begun, and it is the right time to correct mistakes that later may become entrenched in our actions and could be difficult to remove, as happened in our history.

## **1.2. The Internet**

### **1.2.1. Definition**

The Internet is a set of interconnected and decentralized communication worldwide. The first connection between computers was conducted in 1969 in which several universities in the United States participated under the symbol ARPANET (Advanced Research Projects Agency Network).

Studying online is a challenge for the social sciences which should add lots of energy into understanding the phenomena observed in the network of networks that increasingly loses

its “surprise” character. Everyday life and life on screen are gradually approaching each other, making the new geographical space of cyberspace one more place to be and to live in. What initially was a “new frontier”, a site full of fantasy and a virtuality, is becoming ever more real. (Balaguer Prestes, 2003, page 15).

Therefore, while the internet has emerged in our reality, it has focused on academic attention, affecting studies in all fields, although some are of great importance to culture. The network offers extensive and profitable opportunities for research, coming to terms with expressions like “cyber culture”, concerning cultural development obtained through the use of internet.

Cyber culture is developed in conjunction with the growth of cyberspace which is given by the physical infrastructure of computer networks and other electronic devices, the corresponding ICT and digital information and communications contained and mediated by such devices. (Lévy, 2007, page 7).

Consequently, elements that enable cultural development are computers and computer equipment, especially the big teams of research centers joined in an interconnected network and where information technologies for programming, processing, digitizing and editing, make it possible.

### **1.2.2. Features**

It can be said that the internet today is the most consulted source of information overcoming all traditional media including radio and television. Any major event anywhere in the world is reported immediately, ahead of airtime in newspapers, television reports and even radio.

The gradual normalization of the social media web standardized under networks like Twitter or Facebook, is changing the deep routines of the media and even the very essence of the journalistic profession. When the monopoly of massive communication has blurred between the immediacy and intensity with which the public makes use of tools that democratize the information on the web, a redefinition of the rules in the profession is necessary. (Live Noguera, 2012, page 7).



Professional standards have not only changed journalism but in any professional sphere the requirements have changed, demanding multidisciplinary tasks that were not previously required.

One of the most requested uses of the internet is related to leisure, a new resource especially for younger people. The download is usually music, books, movies and other files, preferably for fun and entertainment. Some accesses to these downloads are free, which further promotes increased exposure to these materials.

Free downloads openly crash with commercial interests that currently govern the field of cultural industries. [...] These conflicts could even leave some mark on the new legal regulations governing the operation of digital hyperspace. It is a struggle for power, a conflict over control in the distribution of multimedia content on the Internet. At the same time, the power struggle continues to be a clear sign of the tensions running through the new land of relationships between culture and society. (Antolin, and others, 2010, page 35).

Therefore, these pressure set a legal and a political challenge that must be urgently addressed by the concerned parties and certainly stop the sponsor cycle that the internet maintains.

Other uses for leisure are the viewings of movies, where complete plays of any kind can be enjoyed without having to download them. "You-Tube" is a specialized portal for videos; the users can upload and share videos in a free way.

Following the theme of leisure, there are varieties of online games, to interact with other internet users.

The data for USA shows that around 50% of Americans use multimedia games; 39% are women and the average age of users of multimedia games is 29 years. About the age structure, there are other data of equal interest for understanding the use of games. Most frequent users are older than 18 years and 41% of users of multimedia games for PC, and 22% of console users are over 35 years. (Cardoso, 2010, page 169).

Since the late 90's, the market was divided into two distinct trade routes, first, games for the home PC, and on the other hand, the exclusive apparatus for console games. Currently the PC as the console can access online games and interact with other players anywhere in the world simultaneously.

If there is an element that revolutionized the world around the internet, it was instant messaging, or what is also known as "chat". This is a simultaneous conversation between two or more people, in writing by supporting a program (software) and through the network.

Chat emerges as a new framework or everyday communicative interaction space, as a sub-community of speech with rules and metalanguage, a space that opens new paths and horizons and new paths to penetrate and engage in social relationships. (Sanmartin, 2007, page 85).

With the development of chat, documents, pictures, or videos can be simultaneously shared. You can exchange short text messages as in a mobile phone via SMS, and the interaction is performed in real time.

### **1.2.3. Social Networks**

Social websites are another great contribution to the interactive network relationships. The most popular are Facebook and Twitter; there are also others known as "Hi5", "Myspace" and "Orkut". These are portals that allow the relationship between people by rank, friendship, work, profession and hobbies. Human beings have always been related by group characters and in a social network people are interconnected and interact with each other. Sciences such as anthropology and sociology have put their analyses on this new relationship.

The origin of social networks is in the "theory of six degrees of separation" by which it is stated that all of us however far we are geographically speaking, actually are separated by a maximum of six "intermediaries". (Alastruey, 2010, page 31).

In 2011, Facebook conducted a sociological study called "Anatomy of Facebook". At that time the social network had 721 million registered users, therefore a 10% of the world population. A

few links between any user and another not known were analyzed. It was concluded that 99.6% of users were connected by 5 degrees apart.

"Think about the last time you were in an airport or in a crowded bus terminal away from home. ¿Did you consider that the person sitting next to you probably knew a friend of a friend of a friend of you? "(Backstrom, 2011, page 1).

Social networking on the web is based on how it ties its users together. Facebook was created to encourage networking among college students. Currently it is open to anyone, unlike other networks; members can only make public their profiles to other users of the site. Twitter is one of the most contested sites, since its creation in 2006 has not stopped growing, and currently has more than 150 million users.

It is a horizontal social network service in which plain text messages are exchanged with a maximum length of 140 characters called Tweets. It offers the possibility of a rapid communication in real time, which provides a sense of closeness between people who communicate through it. (Garrido, 2012).

Simplicity calls attention to this site. It has closed groups, there is only one text box to type up to 140 characters, and a few simple commands to perform some simple actions on messages.

#### **1.2.4. Legislation on the Use of Internet**

The legal aspect of the internet, suggests that users especially young people understand that the freedom of navigation offered by the network guarantees a certain legal immunity for their uses. In the recent implementation of this ICT, new offenses that need to be legally covered have appeared. Harassment, defamation and infringement to privacy and to image are often on the internet.

After the last legal reform in Ecuador, the Criminal Code, Article 229 enacts:

Unlawful disclosure of data. The person to his/her own benefit or a third, reveals registered information contained in files, databases or similar means through or directed to an electronic, computer, telematics or telecommunications system willfully and intentionally materializing the violation of secrecy and the privacy of individuals, shall

be punished with imprisonment from one to three years. (derechoecuador.com, 2014, page 1).

It is a crime therefore, to exploit the potential of the network as a means of interpersonal communication to access information of others, violating the right to privacy and to the personal secrets.

The causes for internet addiction especially with social networks, are often associated with familiar problems. The lack of affection or prolonged parental neglect produces the need to seek alternative forms of attention, the use of social networks satisfies the conditions of freedom, friendship and love.

There are a variety of risk factors in the personal and psychosocial characteristics of internet users who abuse it. Among them are those with a profile defined by the existence of psychological disorders prior to their current internet abuse problem in which family disturbances and addictions are included. (García del Castillo & López, 2009, page 350).

Therefore, like other psychopathologies, addicts experience isolation, prodigality, anxiety and depression. The symptoms that indicate addiction are the neglected tasks of adolescents or in the case of adults, unjustified absence from work.

### **1.3. Global Electronic Commerce**

#### **1.3.1. Definition**

The buying and selling of goods or services through internet electronic means, is known as Electronic Commerce. With the push and expansion of the phenomenon of internet and the "world wide web" (www, a global computer network, a distribution system of interlinked hypertext documents and accessible to the network) in the late XX century, commerce began to develop through this means. At the beginning, the transactions were made via bank transfers or delivering data bank cards, which meant many risks, thereby the payment through credit card by electronic payment system called EPS was formalized.

People increasingly prefer to use this way to sell or buy for several reasons, including the possibility of finding deals with more comfort, quality and good prices and the comfort of being able to search and make the transaction at their convenience.

The sales in the US market grew 13.9%, leading the world market with USD 364.6 billion in 2012, and hoping that this year will re-grow 12.2% up to 409.5 billion, especially as more consumers shift their purchases from the physical store to the online store. [...] In Spain the number of buyers has increased from 13.4 million people in 2011 to 14.5 million, and in 2013 is expected to reach 15.9 million. By 2016 more than 19.5 million will buy online according to eMarketer estimation. (PuroMarketing, 2013, page 1).

Although the data shown, in electronic commerce transactions, the information is not always reliable. In developed regions, the result of market statistics are an estimate.

### **1.3.2. Features**

The electronic commerce company is called "B2B" (Business-to-Business), normally it is used by the EDI (Electronic Data Interchange) technology by which the electronic delivery of purchase orders, invoicing, etc., is allowed.

Possibly the relative success of B2B trade is, that companies have seen the added value that for them it represents, because it speeds up the administrative procedures, reduces movements, production cycles, stocks and facilitates the integration of suppliers and sellers in the value chain of the product with a facility that did not exist before. Another reason why the B2B trade has been imposed is that "the big ones" have adopted it, forcing others to reposition in order not to lose competitive advantage. (Seoane Balado, 2005, page 263).

Therefore, some of the virtues which can be highlighted are:

1) The improvement in distribution with zero cost makes the participation interesting in the interactive market. The sale of software (such as antivirus programs), the transaction after the sale to be formalized, is almost immediate, and its distribution is completely free, reducing intermediaries and large scale costs. It is clearly profitable.

The concentration and grouping of companies also means a reduction in transaction costs. The price can be customized for each transaction, but the savings are not just for purchasing processes, but for production, inventory management, marketing, distribution, administration and customer services. (García del Poyo, Gil Rabadán, Merino, & Somalo, 2011, page 355).

In conclusion, an increase in the efficacy and cost savings generates profits, produces quality and confirms the growth of the commercial relationship between companies in the future.

2) Electronic Communication. Products information today is done on the web, facilitating commercial relationships and supporting customers to get higher fidelity parameters.

An example is the company 3Com Corporation, a B2B company selling computer hardware tech. It generated through a series of portals, prospective customers for its business network interface:

The company used e-mail in order to attract potential buyers to its own website, which proposed a raffle for a 1959 Corvette by those who completed the registration form. The company generated 22,000 leaflets, that were qualified through email and telemarketing. Out of 482 answered prospects, 71 became sales, totaling \$ 2.5 million. In addition, the manager guaranteed, "I have now 22,000 names in my database". (Kotler & Armstrong, 2011, page 106).

So it is clear that, the e-mail is an important tool of advertising-marketing, where you can compete effectively due to the creativity of the experts designing fortified posts where animation, automatic interaction, or videos and audios, help to attract prospects in an increasingly saturated offers world.

3) Transactional benefits. The use of the web for business sales reduces significantly the incidence of errors, reduces the contractual time and overall costs in communication. It also creates new and dynamic segments that extend business deals, such as the entry of new customers in geographical locations that would not have any chance of being reached before. As an example we have IBM, with an offer of one of its software products: "Sterling B2B Integration Services Plus helps to increase the capacity and profitability of

their B2B operations through additional transition services, document management processes, premium support, integration services and optional support to business partners.”(IBM, 2014, page 1).

4) Achieving fidelity. Customer trust is the most pursued element by any company. There are no models and no magic formulas to ensure infallibility in this aspect. It is therefore an essential factor in business.

Companies can devise strategies to obtain valuable information about the conduct and behavior of potential prospects.

Computer technology allows the collection of information at the point of sale through scanners and smart cards, so that you can link purchases to the characteristics of buyers and obtain consumer typologies based on their demographic characteristics such as age, gender, income, family composition, area of residence, and other behavioral aspects such as fidelity to the establishment or purchase frequency. In addition, the internet provides access to the demand in unsuspected quantity and quality up to a short time ago. (Large Esteban & Abascal, 2011).

Monitoring is an essential element in commercial mechanics. It is an effective strategy to get attract the most current or potential customers, getting to know their peculiarities, personality and behavior that will allow effective planning strategies.

B2C (Business-to-Consumer) is another aspect of electronic commerce. It is a strategy developed by commercial companies to directly reach customers and end consumers. Therefore, we are not talking about business to business companies but sales of goods and services from companies to consumers through the network. The most advertised products in the market are books, toys, and electronics.

Amazon.com was one of the most important companies in B2C. But shortly after e-merchants who only sold to retail, such as Amazon.com got established, the traditional retailers began to realize they as well must be present on the web. Among the major retailers that started their own online operations are Barnes and Noble, Toys ‘R us, and Walmart. (Keat & Young, 2004, page 550).

Although it is difficult to predict the changes that will occur in the future, there is no doubt that tomorrow sales will be mostly conducted by electronic commerce, either from the pc, from the cell phone, or a combination of both.

For most companies, the way of marketing will be called "multichannel commerce", according to the representative of eBay: "The possibility to buy and sell anytime and anywhere, either through a computer, a phone, a tablet, a television, a store or a kiosk. This will be the way that consumers connect with the things they need or they like. There will not be differences between doing online or offline". (Bello & Ramos, 2012, page 24).

Consequently, the commercial future of companies both large and retail, is in the training or subscription to portals dedicated to selling and capturing customers, portals that need to cover all necessary areas of an online shop.



## **CHAPTER II**

### **IMPACT OF THE GLOBAL ELECTRONIC COMMERCE**

#### **2.1. Global Influence**

Electronic commerce or e-commerce is a new business concept, with new formulations in commercial relationships between companies and people. This new concept is settled on the basis of new technologies. New concepts, where geography is no longer a barrier and where time is not an obstacle, are given.

The internet has been gaining importance in working life so as to become indispensable. In the commercial field it has become an indispensable tool displacing very recent technologies such as fax or phone. "It is pretty easy to point out the advantages that the internet has over the telephone, fax, letters or libraries. Most of these advantages have to do with access, speed, storage, and so on ". (Graham, 2006, page 63).

When we talk about e-commerce it refers to trade developed through electronic media. It is a new way of communicating using techniques and the new information technology and ITC's offer within the marketplace.

The development of trade through electronic media is what characterizes it as "electronic" and a first qualification that we should make about this is that electronic is not equivalent solely and exclusively to the internet, so, all trade to be developed using internet is e-commerce, but not all e-commerce is internet commerce. (Arias Pou, 2006, page 41).

Therefore, any electronic media commercially based is e-commerce. With the creation of the internet as a vehicle for communication and data transmission, it offers substantial advantages for economic life.

Electronic commerce can be classified into open or closed. Open electronic commerce is carried out in a wide and universal way through internet. Closed electronic commerce is determined by the practice of users through a restricted or private network to a group or a company, such as the intranet.

This may be the case of electronic commerce between companies through electronic data interchange, EDI, which involves the electronic transmission of information from one computer to another, being the information structured in accordance with technical agreed rules. (Arias Pou, 2006, page 47).

Electronic commerce can also be divided into national and international, so that the trade is exercised within the borders or outside them. Although the internet provides no physical or geographical obstacles, it is important to determine the political geography of commercial use to determine the legal regime applicable to each case.

Those involved in e-commerce operations do not enjoy a physical proximity that allows them to interact normally where there is an individual visualization. The participants of e-commerce transactions can be located in different countries, where there is no possible physical contact between them and neither can check the actual existence of the actors.

There is a clear advantage of electronic commerce; it does not require physical proximity of the involved individuals. Instead, proximity is indifferent. Thus, it will be even common that people are in different places. (Torres Alvarez, 2005, page 50).

That is why the term virtual trade within the internet is used since participants interact in an environment and in a space that has no physical or perceptible characteristics.

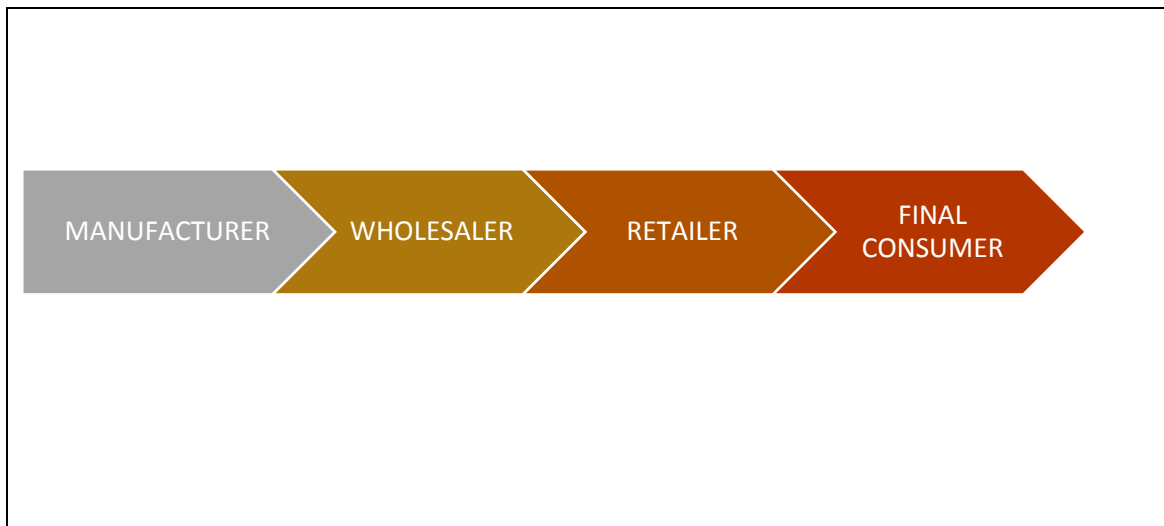
The internet is an open network where the only condition for access is the right technological vehicle for driving on it and trade can be done by anyone with the available technology. Therefore, it is clear that e-commerce has no geographical limitation except for some economic and linguistic restrictions.

The term e-business refers to the lucrative activities that companies and individuals practice through internet or purely electronic means. Among business designs based on the internet, we can identify the following: Internet access providers; content aggregators (portals); business electronic commerce (B2B and B2C) and content providers. The advantages of this design are reviewed by Rosana de Pablo:

The massive adoption of the internet enables the connection to all points of the world. The cost of access to information is a historical small fraction of the cost incurred to access data. The availability of immediate information minimizes the human interaction and therefore reduces costs. The high speed of communication between people allows them to adapt to the products offered to the specific needs of each client. (Pablo Redondo, 2010, page 171).

One of the revolutionary changes introduced by e-commerce is the dimension of intermediaries. The distribution chain is significantly reduced. In traditional trade the chain links are: manufacturer, wholesaler, retailer and final consumer.

**Figure 1. Chain of traditional trade**

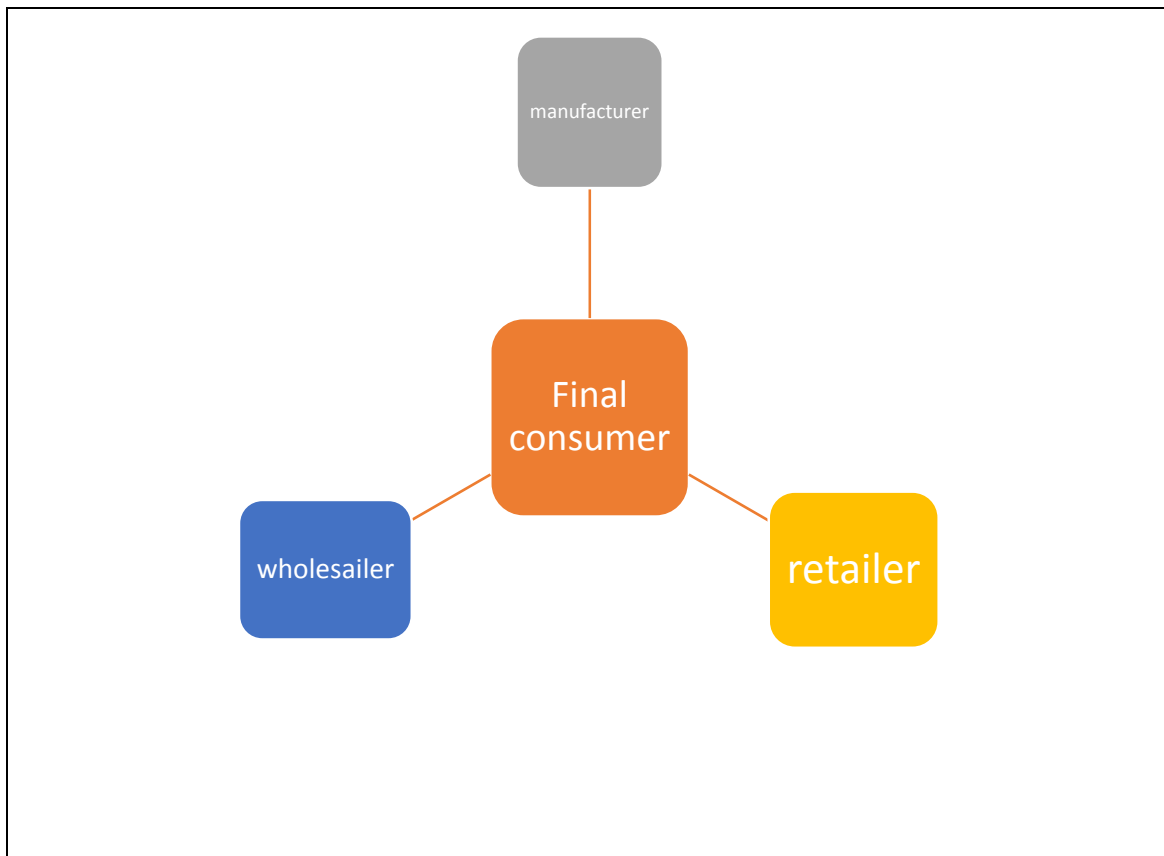


Source: Eloy Seoane, 2005

Made by: The thesis student

The introduction of electronic commerce in our world reduces the chain since any individual may interact with the final link or consumer reducing time and costs.

**Graphic 2. Chain of e-commerce**



Source: Eloy Seoane, 2005

Made by: Diego Vásquez

E-commerce companies had a strong and progressive market acceptance, which led them to have high prices in major stock markets. With the economic crisis and deflation of the bubble there was a significant decline in the companies "dot com". Many businesses had to close, but even so, the industry continued to grow.

E-commerce has evolved from a simple catalog of products or services, built from a static page with little maintenance, to become a means of first order in selling products and services. The market has been settled, modifying in many cases, the business model that happens as a means to reach customers in traditional companies. (Seoane Balado, 2005, page 12).

After the crisis, companies have taken the opportunity to continue expanding with the lessons learned from the bubble. In countries where this commercial style is not sufficiently implemented, the effects of the collapse of the "dot com" was not as noticeably strong as in other countries.

The current volume of electronic commerce allows us to consider it as a mass media. The difference between countries is large, although the trend is to reduce that distance. The problems that prevent the full development of trade are:

- Inability to access a sufficiently large market.
- Technological limitations in both business and consumers.
- Distrust in payment systems.
- Lack of institutional support.
- Problems caused by logistics and distribution.
- Problems caused by lack of financing. (Seoane Balado, 2005, page 14).

The perception of safety among individuals is essential to allow its development. Therefore, it is essential to create a framework of trust. Essential principles such as confidentiality, integrity, authentication and irrefutable personality are imperative conditions.

Electronic payment is also essential. The spread of trade is being hampered by distrust of the users in the payment mechanisms, especially through credit cards.

## **2.2. Influence in Ecuador**

In our country, many of the users use internet to visit portals that belong to the Government. The pages of SRI and IESS, are among the most requested.

Trade through the internet increased 50% in the last twelve months in Ecuador, billing around \$ 300 million. However, our country is located in the last place in Latin America in terms of market goods and services through this business channel. (El Telégrafo, 2011, page 1).

Therefore, today's e-commerce in our country is very poor and lacking in initiatives that push its development. In the 90's, Ecuador failed to develop online telephone services that preceded the use of internet. Services that in many other countries were effective and fully developed, in ours unfortunately, crossed almost anecdotally.

With the rise and consolidation of the internet in our society, from this new century, companies like Amazon, e-Bay and many others, began to break geographical boundaries around the world selling their products in record numbers.

In general terms, all companies are currently seeking a position in the internet market to offer products and services. In Ecuador, an increasingly high percentage of companies are seeking to improve their technological infrastructure to display on the network. In our country this boom is still breaking for a too traditional market. The breakeven is still far away to be effective at an acceptable and comparable level with other developed countries in relation to the image of companies in the internet.

In the words of Mark Pueyrredon, president of the Latin American Electronic Commerce (ILCE):

In 2010, Latin America closed the transactions at around \$ 35,000 million, and of that amount, more than \$ 200 million corresponds to Ecuador, [...]. The failure is in the virtual trade. Therefore, a businessman said that the idea of E-Commerce Day is that Latin America should negotiate electronically, as it is in Europe today. (Carmax, 2013, page 1).

One of the indirect impediments that interrupts the development of business, is precisely pointed by Pueyrredon and refers to logistics and transport of goods. The lack of strict municipal regulation of residences, and the lack of an infrastructure to facilitate the transportation, make economic development and evolution of the electronic commerce slow.

Ecuador's Trade Policy is regulated by the Foreign Trade and Investments Law (LEXI) approved by the National Congress on May 22, 1997. The LEXI created the Council of Foreign Trade and Investments (COMEXI) consisting of six representatives of the public

sector and five representatives of the Chambers of Production of the country. The main function of COMEXI is to determine the policies of foreign trade in goods, services and manufactures considering the international commitments assumed by the country in trade issues, function of the macroeconomic program and development of the country.

One problem for the development of e-commerce is largely the ignorance of the population. It is important to create educational policies to overcome the technological gap caused by the inability of the population to achieve new technologies. The COMEXI should be in charge of this public awareness since it is the Agency for Promotion and Diffusion of the Electronic Commerce.

Bank's deficiency is perhaps the most important consequence that drives electronic commerce in Ecuador. The lack of essential products such as credit cards to shop online, is not granted. The Cooperatives do not extend network access for shopping, and banks only allow restricted credit and debit. These purchases can only be made through transfers or direct payments to accounts which slow the transaction.

Legislative insecurity is another obstacle to the development of electronic commerce. "The legal security aims to ensure that people who operate e-commerce transactions, get to the goal". ". (Torres Alvarez, 2005, page 224). It is essential to organize a coherent legal framework to support authentication mechanisms, privacy and protection of personal data. It is important to note that the concept of security is determined by the scope of substantive law, since its purpose is to achieve the certainty of the existence of valid and enforceable legal actions against third parties.

Another difficulty that prevents development is the poor telecommunications infrastructure that supports the country. The development of communication technologies is directly linked to the growth of foreign trade; therefore we must strengthen the access to the internet and the consequent development of the telecommunications infrastructure. Regarding this, the National Plan for Telecommunications Development is designing strategies to correct existing deficiencies in the country:

One of the objectives of the Plan will promote and strengthen the creation of a true information society and the knowledge through user-centered actions and the

environment in which they interact, so that makes available the following national facilities: Electronic government; Municipal internet; Basic education and School online; Health online; Large information systems and Online databases; Online digital libraries; Digital television broadcasting and Online education; Digital electronic commerce; Digital online tourism and Production sector online. (SENATEL, 2007, page 3).

To build a stage of contents, an agreement will be held especially in the fields of education and health. With the growing market, the State must double its investment as well as private companies to underserved sectors in order to improve the quality of life.

To achieve it, the Government will establish a large national Internet backbone that will cover the whole country, formed by large nodes and routing information, and real means of transport as an information superhighway, supporting national specialized platforms of each of the mentioned applications and activities. (SENATEL, 2007, page 3).

The word backbone refers to the main internet trunk connections. It consists of a large number of commercial routers, government, university and other large interconnected ability to carry data between countries, continents and oceans.

All these security problems and the lack of infrastructure, operate as barriers that prevent Ecuadorian citizens easy access. The new trade model provides its virtues but the citizen cannot take the risk within a framework where his/her effort and investment are undeveloped.

The globalized world requires a high level of competitiveness. Its performance is essential to the economic development of Ecuador. Missing the thread of this new model would be an obstacle to our future.

There are different online stores in Ecuador, some with innovators ideas (and designs). Some have their own ways of charging (via credit cards and through a connection with a bank); others use PayPal and others can only pay through a bank deposit and transfer. (Korntheuer, 2013, page 1).

If there are no facilities to get a credit card that enables payment through it and the bank, the electronic commercial transactions become rough, complicated and slow. The



Ecuadorian banking service is significantly delayed with respect to development in other countries. The tedious processing services are an effect that causes underdevelopment of the system.

### **2.3. Marketing and Advertising in Electronic Commerce**

From a simple concept, a virtual shop is a place where you try to sell some goods and as in the real market advertising is a necessary tool. The principle is basic: the virtual store has the need to generate profits; to ensure that the store sells it is necessary that the public gets into it, then, logically, the internet users should know.

Marketing in the world around the internet includes content management, public relations, care about online reputation, customer service and sales. With the availability of suppliers in e-commerce, the marketing operations has increased.

With the arrival of e-commerce a new way to advertise is created. New ideas and new ways of applying marketing are created almost simultaneously. Internet marketing is indicated by four major pillars according to P. Fleming.

Flow, functionality, feedback and loyalty: the four F's will ensure that customers are comfortable visiting our Website, and will allow us to know them better, allowing customers to visit, and recommend us to their friends. (Fleming, 2000, page 12).

The flow, according to Fleming, would be a mental energy that the user has when entering the web, and all the added values that he/she will experience.

A website must be functional and must have an attractive home page, along with a clear navigation to help users to browse in the portal.

With feedback it is possible to establish a dialogue with customers. The publisher has a tremendous opportunity to get the most important report: information about his products which comes directly from the user.

To ensure that customers and visitors are most faithful to the offered products, several communities of users providing fresh content have to be created.

There are four types of marketing service providers emerging: advertising agencies which are specialized in the internet, companies responsible for the placement of advertisements on the internet, those specialized in market research on the internet and those which are specializing in loyalty programs. Each one has a different business model but all of them are based on the same principle: product advertising and the brand image of the company on internet, as well as knowledge of this environment are vital to the future success of the company. (Laso & Iglesias, 2002, page 339).

Therefore, all actions are taken in marketing through its centers of product advertising, consolidation of corporate image and knowledge of the environment on its constant and rapid change.

Business models affect the application of marketing. The different models as we saw in the previous chapter, are mainly B2B and B2C. When internet marketing was originated, the B2C was the first to develop.

B2B transactions are more complex and arrived a few years later. There is a third model because of the effects of the global crisis which has found a place in the market; we refer to P2P, where individuals exchange goods and services between them. It is a computer network in which all or some aspects work without clients or permanent servers, but a series of nodes that behave as equal to each. This way both client and server can interact simultaneously. The networks allow direct exchange of information, this aspect has meant that much of this network is used to exchange files protected by (copyright) rights which generates a great controversy between supporters and opponents of this model.

This uncontrolled exchange of files has resulted in criminal or ethically reprehensible acts committed within the network, undoubtedly the most common is the author's complaint due to alleged infringement of copyright. If a single user purchases the product and shares it on the network, it can be accessed for free and without any charge to users, therefore there is no benefit to the author; this will be illegal or pirated. (Gómez García González Verdugo, & San Frutos, 2012, page 4).

Within these networks there are materials, whether text, sounds, videos, photos, etc., freely licensed so that they can be downloaded by others, those that use legal licenses such as GNU License; Creative Commons License; Copy left License. These licenses allow free distribution of content from one's own work and blocking any attempt by governments to P2P networks is a clear violation of the rights and freedoms that citizens have to do what they want with a work created by themselves.

The limitations of Internet Marketing can create problems for both businesses and users. Slow connections in the network can cause these difficulties. If the marketing policy decides to put too many advertisements on its website, the visitors and customers may have difficulty downloading the information.

Security issues are of great importance for the development of trade relations, as we have seen in this research. Companies developed on the network are working hard to solve this problem. Data encryption is one of the most contested methods to ensure privacy and hacker attacks on the internet.

The definition of conversion is the encryption of data in coded circulating digits. These encrypted codes are difficult to decode and keep the privacy of the data. The problem is the need for a more solid encryption, more data protection, but the price is higher.

Encryption is especially useful for protecting messages on the internet and other public networks because they are less secure than private networks. Encryption helps to protect the transmission of payment data such as credit card information and solves the problems of authentication and message integrity. (Laudon & Laudon, 2004, page 463).

Internet marketing has had a great impact on various industries such as music, publishing, banking, and flea markets.

In the music industry, users instead of buying formats on CD or DVD, download MP3 files.

The debate over the legality of downloading MP3s has become a big concern for those in the music industry. The MP3 is a compression digital audio format, using an algorithm

for a smaller file size. It is a common audio format used for music both on computers and portable audio players.

Publishers are developing a good match for the possibilities that the electronic market is offering. The removal of intermediaries has the ability to compete on price. Marketing for its service has managed to position the directories that collect links to their servers.

Online banking, e-banking or generically electronic banking is banking which can be accessed through the internet. These may be entities with physical branches or only virtually operating such as ING-direct group. From the point of view of the consumer, online banking offers several advantages: convenience, 24-hour service, global access, time savings, lower costs, commissions, etc.

There is a high correlation between the importance of online banking and internet access by the population. Both variables depend on the level of economic and educational development levels of the population. Specifically, the income per capita, the education levels and the geographic location, explain the observed differences in the rate of internet and online banking. In addition, Eurostat supplied data indicate that the use of internet banking decreases with age when the entire population is analyzed. (Maudos Villarroja & Fernández de Guevara, 2008, page 262).

Therefore the greater the number of citizens who use the network, the more people will use online banking, proportionally speaking. Younger people according to this research, use this model more than older people.

Marketing in the field of electronic banking has a very important use. Offers are very aggressive in terms of the search for new customers. This causes decreased cost rates that sometimes even disappear, eventually offering a more profitable way.

Among the advantages that surround advertising through the network, we note the low cost compared to the cost of conventional advertising; its creation does not require much time; there is no limitation on the exposure time and the space required; and customer response is immediate, obtaining an interaction hardly reached by other means.

## **2.4. Growth of EBay and Amazon**

Seven companies have made great portions trade business online. Google in the search sector with a market capitalization of 293,000 million is the first in importance. Amazon followed with 125,000 million, and eBay with 66,000 million. These two companies operate as sellers of its products. Facebook with 58,000 million moves in the field of social networks. Less known for now, are the other three companies based in China: Baidu with 33,000 million is the leading Chinese search engine; Alibaba as a trading company and Tencent, an internet services company for cell phones.

Some analysts see electronic commerce as a mature and well-penetrated market, indicating the high-profile raids on Amazon web services and streaming video, and the rate of eBay, which has stabilized between 15% and 20%. However, this point of view is too simple. E-commerce still has a huge and growing group of internet-based economies and in a worldwide expansion. (Ken, 2013, page 1).

Jeffrey Bezos was the creator of the Amazon Company. In 1994 he founded the company based in a garage in Seattle, becoming the first virtual library on the web. Today it is an online store selling books, music and accessories. It offers affordable, well documented selections and large and pleasing information about the products offered.

Amazon is indeed the place of reference for any reader. Without replacing the traditional book business it has been known to complement and become a business channel required for publishers and its catalog is the most useful tool for any buyer looking for a specific title. It quickly becomes familiar with customers either being in a big city or a small town. (Bravo, 2012, page 7).

Amazon does not accept orders by phone, e-mail or fax; all of them must be done through its website. The amount of orders is not loaded on the cards provided by customers until the package has been shipped. Amazon does not accept checks, bank transfers or cash transfers; only online payment cards (credit or debit cards) are accepted.

Amazon meets the three basic requirements for a business to find market orientation within the network: to be routed to the customer, believing his needs, opportunities,

priorities, interests, tastes, and desires it keeps tracking the competition and ensures profitability, although at first this is worked at a loss.

In 2007, Amazon was the company that dominated the digital book market with its Kindle reader, which was sold for 400 euros. In the USA, there is no a specific price law to sell books and this allowed Amazon to lower the price of its digital books at \$ 9.99. The result of this was that Amazon lost money because they were interested in selling kindle rather than selling books. What happens today is that the reader cost is \$ 99 and the final objective is to capture customers to purchase their huge catalog of book (Bravo, 2012, page 141).

Amazon therefore is able to combine its losses in order to build trust and customer satisfaction. The company has launched the Kindle Fire to the market, which is sold in the European market at 149 euros, less than half its competitor iPad. It has a touch version of its e-reader, the Kindle Touch, priced at 72 euros which is the most direct competition to Nook reader from Barnes & Noble. As happened with the Kindle, the Amazon tablet is linked to the application store of the company, which ensures a customer loyalty.

"eBay is the largest center for buying and selling through the internet. It is a place where buyers and sellers meet to exchange almost anything ". This is the definition that works? on its page. In the beginning it was only an online auction; the organized selling of products to the highest bidder was the only way to complete transactions with the company.

Currently, eBay is a dynamic global market where an average of sixty million products are put on sale every day either new or second hand, classified in over fifty thousand different categories and in more than thirty countries worldwide. There are the two main agents of any commercial operation at the same level: the buyer and the seller. At the beginning, both responded to a single profile, but over time companies have begun to take sides, until they found a very interesting platform to market their products (Franco, 2012, page 8).

The eBay success aroused interest in the world of auction and many companies signed up and quickly similar sites began to emerge. For example, in Latin America portals like deremate.com, mercadolibre.com, or lokau.com. Appeared.

During 1997 and 2001, internet related companies experienced a sharp increase in their contributions on stock exchanges worldwide. The ".com" companies started to rise and speculative deals increased. The bubble burst and swept away most of these companies, causing the closure of many or mergers and layoffs.

The fall of NASDAQ ended the Internet bubble, putting a shadow of doubt on the entire internet and the companies in particular. These were the only companies that in just three months lost about 95% of their market value; they lost all means of financing, failing in some cases to return the invested capital to its investors.

This crisis led to the closure of nearly 90% of Internet companies, and those who survived had to adjust their cost structures. (Araya & Dawes, 2003, page 4).

Regarding the critical part, trust is essential to run auctions among people. One of the risks in auctions is the false bids or bids placed by the seller on his own items, thus the final purchase price increases. The company has admitted the possibility of this fraud, but claims to have adequate technology to detect it. Nevertheless, the bid of a third party in collusion with the seller cannot be detected, so that fraud is possible. In addition by raising selling prices, both the seller and eBay are direct beneficiaries due to its commission, which is common that the company is not interested in finding out the behavior of sellers, as it would go against their commercial interests.

The payment formula is set by the seller and may be: PayPal, credit cards, bank transfers or cash. When the notice of sale is published, the company charges a fee to the bidder in the case of a sale in proportion to the final sale price.

Japan is the only country where eBay has failed. In that country flea markets have never traditionally existed. In Japan the new is highly valued and the used is discarded as useless. The company entered the country in March 2000 under adverse conditions; it decided to create its own community starting from zero. It developed several marketing strategies; it received attention from Yahoo sellers. It spent thousands of dollars on incentives for the use of its site. None of this resulted positively and in February 2002, after two years in the Japanese market, eBay had only 3% of the market. Among many

of the causes of failure was the underestimation of competition, the misunderstanding of the Japanese market, a late launch, and finally a policy of mistaken payment.

The management of eBay focuses all its forces to create a company that transcends the United States and become an event around the world. They know that their future revenue growth could not be sustained solely for the American market. They know that its growth will tend to block up due to the increased competition, and natural market saturation. This is the reason why eBay begins to look favorably and is setting significant resources on its international market. (Araya & Dawes, 2003, page 66).

The intention therefore is not to intervene in certain countries in a certain way, but by creating business spaces without physical boundaries, anyone will be able to interact with any other users from anywhere in the world.

## **2.5. Future Evolution**

### **2.5.1. Future Concepts**

In the coming decades the online purchase will be positioned as the commercial mode with more reference. There are currently 70 million of locations (sites) on the internet with 700 users, numbers that make clear the growth and the promising future of this system.

Nowadays, the internet is still in an early stage of its potential development. In a near future, with cheap and powerful devices, fast and comfortable access and program innovations, the internet will become a common and a powerful resource as electricity is today. Many of the connected devices will have network access (cell phones, fax, home appliances, digital cameras, etc.) as well as laptops and desktops. (Pablo Redondo, 2010, page 118).

An obvious reality is the loss of the importance of computers as a platform network tool to access for cell phones, television or game consoles.



The increasing demand for access, guarantees a growth in the next decade. Pioneer companies are developing two major projects that will mark the future development of the internet evolution: internet2 (I2) and NGI (next generation internet initiative).

Internet2 or also UCAID (University Corporation for Advanced Internet Development) is a non-profit committee that develops applications and advanced network technologies, mostly to transfer information at high speed. The Internet2 consortium operates the Internet2 network, a telematics network mainly developed by US universities using optical fiber and providing network services for research and education.

I2 provides the American research and education community a network that meets their intensive bandwidth requirements. I2 provides the American research and education community with a network that meets its intensive bandwidth requirements.

The internet-2 project has been organized in cooperation with the research departments of the university community, with the intention of facing the major challenges of communication to future university networks, and creating a multimedia broadband network which will be used by the academic community. The project will be released in the next 3 to 5 years, and will involve more than 100 universities and a large number of Federal Agencies. (Burns, 1997, page 2).

The use of I2 as an educational and scientific research tool therefore, has increased and will grow because of the advantage it represents for the access to large databases, the ability to share information between coworkers and to facilitate the coordination of working groups.

The Next generation internet program (also NGI or NGI Initiative) was a project of the Government of the United States intended to increase dramatically and drastically a speed Internet. President Bill Clinton and Vice President Al Gore announced their commitment to the program on October 10, 1996.

The Next generation of internet program (NGI) is an initiative of the US Federal Research, in order to develop the technology and the future uses of internet. This effort of creation was initiated in 1998 to be given in a period of five years with a financing of \$ 100 million per year for its proposal. Through this way, a hundred new projects with

involvement of academic communities, industry and federal research schemas have been designed. The initiative is aimed to high level plans. (Yamanaka, 2004).

Both projects are looking for reissuing the success of the first Internet at a newly developed high level. However, its use will also improve the existing university systems.

The next stage for the future of the internet is in virtual reality where users will be able to experience a service or product through all their senses. By integrating the multimedia means and also incorporating encouragement to the senses, the virtual reality points to simulate a real experience. The skeptics argue that this will reduce the desire of prospective buyers, while others believe that most of the users would like to experience a virtual reality, so the demand for these products will be increased (Pablo Redondo, 2010, page 121).

The current market demands more speed and convenience to make negotiations. Time is an increasingly valued resource. Therefore, the future of e-commerce is in the flow of data and transactions as immediate as possible. Data on the growth of trade in the network leaves no doubt about these parameters. Companies in all sectors compete for being in the main sales channels. Social networks like Facebook and Twitter compete for commercial and advertising spaces on their websites.

Online marketing will become an important part of a fully integrated marketing mix; for others, it will be the main way to serve the market. Sooner or later, "e" in e-business and e-marketing will disappear, and the e-commerce companies, their strategies and every day practices will be better integrated. (Kotler & Armstrong. 2011, page 110).

Therefore, e-commerce is potentially hopeful since it will be the route by which the world economy and companies around the world will unfold. This economic flow will be based on the ease of access (phones, tablets, etc.) at its convenience (access from anywhere, anytime) and fluidity (adsl, optical fiber, new technologies, etc.).

### **2.5.2. Future Legality**

From a legal aspect, a topic of this research that concerns us, there are certain aspects that remain unresolved, and generate a series of disturbing questions within the legal area.

Lets imagine the event of an Ecuadorian buyer examining a catalog from a web page and this website belongs to a company domiciled in Panama, Gibraltar, or in the Cayman Islands. Then, the buyer decides to place an order for one of those products that the catalog offers and for which payment is made electronically through the network.

To complicate the fact even more, let us imagine that the product is not physically tangible, for example, it is a computer program (software) that is downloaded over the internet without going through the normal traffic of products. The questions are: What is the legal status of that contract? , How can the payment be made and confirmed, since the different individual financial regulations exist? , What administrative control exists to ensure clear and fair taxation? , What kind of duties, taxes and fees will be charged on the item that was purchased? , How will the taxes be collected and controlled?

For e-commerce to be really global, it is necessary to have a legal environment that adequately resolves the security and privacy issues, the legal validity of the commercial documents in electronic format, the taxation and the intellectual property rights, etc. Technical advances are required to review the progress on the current standards, with the risk that countries adopt different criteria or incompatible standards. As an example, using a powerful encryption system necessary for secure e-commerce, is sometimes subjected to very different rules according to the countries, very restrictive in some cases and more flexible in others. (Barruezo García, 2003, page 75).

Anyway, it seems that the evolutionary pace of commerce is faster than the implantation of adjustments and legal regulations governing commercial practices. On the other hand, it is clear that the legal work can not only be made with native Trade Law criteria, but that agreed international standards are oriented to the market principles of globality.

The development of rules limiting or defining the responsibility of the user in case of misuse of payment card, guaranteeing the right to refund the product (for dissatisfaction, damaged, etc.); the development of ethical codes to companies marketing on the network; the creation of arbitrary elements (also virtual, why not) will give assistance to the parties in the generated conflicts.

All these legal developments that are in the spotlight will help to overcome the mistrust that now exists, and will generate peace to all those involved, giving a major impetus to the trade evolution (inevitable).

### **2.5.3. Personal Authentication on a Future Framework**

The electronic signature is the legal equivalent of a handwritten signature. The electronic signature creates an audit record of authenticity that includes verifying who printed (if the term is accepted), date and time.

According to the Law 59/2003 of electronic signature, in Spain:

In response to the need to provide secure communications, through internet emerges, among others, the electronic signature. This instrument is capable of allowing proof of the validity and integrity of messages exchanged through telecommunications networks, providing a basis to prevent rejection if appropriate measures based on electronic dates are taken. (Cortes Generales de España, 2003, page 45329).

It opens a future for us where everything seems exist to be discover. A new world has opened before us. The responsible element of all this is definitely the internet.

The internet now represents the innovative strength that it is vainly trying to implement controls so that at least initially some legal brake that tunes its evolution with the subsequent legislative development are established; even if this is different and presumably present in the future. (Fernández Domingo, 2006, page 13).

The network is an ideal mechanism for conducting business and commercial transactions. Through it moves an increasing number of commercial transactions, and behind it exists a certain fear and insecurity. The main challenge for the future is to provide the necessary security. Organized crime circulates on the networks and there is a latent danger that slows the progress of this technology.

A globalized law is unthinkable; and one exclusively referred to domestic spaces, would not be operational. Therefore the need to seek political alliances based on market

transparency and morality codes, indulging a regulation of the more technical aspects that may relate to the use of the network. (Fernández Domingo, 2006, page 14).

The electronic documents (in our country the identity card), and biometric signature via facial recognition may be other add-checking identities through the internet.

The electronic signature only applies to telematics functions related to the administration and to send secure emails so far. But logically in the future it should have widespread use as it is now the passport or the identity card. The operations that require authentication of an individual such as a bank account, the application of information or the purchase of any goods; will require the support of the parties identity card in a near future.

In the same way that the diffusion of the use of credit cards was a gradual process, the future secure networked applications such as the internet needs a key to this process as the trusted third party network, integrating the so-called public key infrastructure. These nodes can certainly accelerate the final transformation to the information society. (Crespo Jiménez Rodríguez & Zafra, 2005, page 330).

Therefore, the technological means that respond to the concerns of network security are the mechanisms of electronic signature, since they are instruments capable of verifying the origin and identity of the messages, and check if they have been modified from its generation.

These identification systems for electronic documents are important because they represent proof even though they are not printed on paper, but they must ensure authenticity as well as the date and time of issuance and reception. This is a challenge to the legal division in our country.

## **CHAPTER III**

### **ECUADORIAN LAW**

#### **3.1. Ecuadorian Law Regarding Communications**

The Ecuadorian Constitution makes no important mention of the internet or Social Networks nor does it mention Electronic Commerce. The major approaches are found in the field of Communications, Trade, and the regulation of a wide of complementary rules to the Constitution.

##### **3.1.1. The Constitution**

Regarding the Constitution, the state has assumed a role through the new regulation to guarantee individual and collective rights which advocates for a fair trade. Article 336 of the 2008 Constitution:

The State shall encourage and ensure a fair trade as a means of access to goods and services of quality that minimizes distortions of intermediation and promotes sustainability. The State will ensure transparency and efficiency in markets and will animate competition and equal opportunities, which will be defined by law. (National Assembly, 2008).

Fair trade is a free trade in that it tries to overcome inequalities between consumers and commercial actors.

The Ecuadorian State through the Constitution is granted with the right to manage and regulate certain strategic sectors in mainstreaming with the principles of precaution, prevention and efficiency. Among the strategic sectors, the telecommunications are part of our research. Article 313 of the Constitution:

The State reserves the right to manage, regulate, control and arrange strategic sectors, in accordance with the principles of environmental sustainability, precaution, prevention and efficiency.

The strategic sectors with decision and exclusive control of the State, are those whose importance and magnitude have an economic, social, political or environmental decisive influence, and should be directed to the full development of rights and social interest. The strategic energy sectors are considered in all its forms, the telecommunications... (National Assembly, 2008).

The largest sector of the market is telecommunications. Its constant innovation and commercial offers make this part of the technology highly strategic. This sector is producing a new worldview, approaching contacts and facilitating increasing financial and commercial transactions.

The State is required to provision telecommunications services. Following the Constitution, Article 314:

The state will be responsible for the provision of public drinking and irrigation water, sanitation, electric power and telecommunications [...]. The state will ensure the public services and will provision the principles of obligation, generality, uniformity, efficiency, accountability, universality, accessibility, regularity, continuity and quality. The State shall provide prices and rates of public services, ensuring that they are fair and will establish its control and regulation. (National Assembly, 2008).

The political and economic circumstances that are being experienced and expressed in Ecuador allow deep structural changes. The work is complex because it must confront large national and international economic interests.

Article 378 of the Constitution also authorizes the implementation of remuneration rates on public services. In the case of essential services designed to meet collective needs, the use of the rates may be lower than the costs.

In the constitutional framework, going slightly further back in the Articles, number 16 establishes an individual and collective right to free communication. Art 16. of the Constitution:

Everyone, individually or collectively, has the right to. 1. A free, intercultural, inclusive, diverse and participatory communication in all areas of social interaction, through any means and ways, in their own language and their own symbols. 2. A universal access to information and communication technologies. 3. The creation of social media, and access to the use of the radio spectrum to manage radio stations and public, private and community television, and free bands for the exploitation of wireless networks. (Assembly national, 2008).

Telecommunications should promote technological and commercial development. It is essential to build networks that supply the technology needs to all places (specially poor areas due to low economy) and the creation of infrastructure for new firms entering the country in a legitimate competition to ensure a clean market with sufficient variety of deals which will favor the market and will bring benefits to the consumer; so the policies of expansion must be impartial especially in the telecommunication area.

Following, Articles 16.4 and 5 of the Constitution:

4) The access and use of all forms of visual, auditory, and other sensory communication that allow the inclusion of people with disabilities. 5) To integrate opportunities for participation under the Constitution in the field of communications. (National Assembly, 2008).

It is a big challenge to complete the objective of integrating the disabled population into the world of communications. The sector must become aware of the need for efforts to train professionals and those responsible for the communication to prevent people with disabilities from being discriminated against. An example is the program of the Spanish public television "La 2", where six young people with Down Syndrome participate with the presentation, production, and dissemination of a program of professional integration in a hotel. (TVE, 2013).

Regarding the inclusion of people with disabilities and access to all forms of communication, Article 80 of the General Regulation of the Disability Law of September 26, 2000, says that the media are required to use the resources to provide access to information. In this Article, the CONATEL is encouraged to regulate the provision, and the CONADIS to control the compliance.



The Constitution of Montecristi dictates that the state is obliged to encourage plurality and diversity in communication. Art 17.2 and 3:

2. It will facilitate the creation and strengthening of public, private and community media and universal access to information and communication technologies, especially for people and communities who lack such access or have limited way. 3. It will not allow oligopoly or monopoly, direct or indirect ownership of the media and the use of frequencies. (National Assembly, 2008).

The temptation to create exclusive rights to increase government revenues is evident. Anyway, by creating monopolies it limits the growth of the sector and reduces the effectiveness of the benefited operator, at the expense of consumers.

The only official institution that exercised some control over the internet was the US Government by granting monopoly domains on the Internet (terminations such as com, org, net, etc.) and its distribution to other countries through Network Solutions, but this monopoly no longer exists. This lack of control is what gives the internet a character of horizontality, allowing its popularization. (Hortalá & Ibáñez, 2001, page 23).

A clear case of monopoly in Ecuador regards the company ETAPA EP, where thanks to the amended Telecommunications Law, a recognized ownership by the Municipality of Cuenca, has generated a monopoly and an unfair competition in the territory of Cuenca County. The law authorizes this singularity, ironically at the same time it carries an antitrust spirit.

Regarding communications references, Article 19 regulates the prevalence of content and the creation of spaces for the promotion and dissemination of domestic products, as well as the prohibition of misleading advertising or inductive illegal positions.

On this position, Article 46-7, regulates measures to ensure protection of adolescent on the dissemination of content through any medium that promotes violence, racial or gender discrimination.

Under the Regime of Powers, the Article 261-10, gives to the State the exclusive competence in the General scheme of Communications and Telecommunications.

A new law, responsible for solving old habits of certain economically powerful sectors in the country is Article 312 of the Constitution:

The financial institutions or groups will not be able to own permanent, full or partial stakes in companies outside the financial activity. The participation in the control of capital or capital investment of social media is prohibited to entities or financial groups, legal representatives, board members and shareholders (National Assembly, 2008).

The political elites and business groups are the two main centers of power in Ecuador. From the information that the SRI facilitates, a hundred economic groups have been analyzed that have interests in twenty nine communication media which confirms that in Ecuador a highly networked group has been structured.

As failure it is also observed with Ecuadorian law on the prohibition of banks to be linked to media such as the Juan Eljuri Group, which has interests in three financial institutions and two media.

In global terms, the economic / financial groups own 9 media for a grand total of 29; and 22 financial institutions in a total of 46 (SRI), demonstrating a clear entailment of financial groups to banking and a strong media concentration. (Tafur, 2014, page 1).

From the Constitution, the Government maintains a pulse with some media considering that it represents the interests of small powerful groups, at the expense of the majority of society and that have promoted in the past certain statements of opinion in favor of its objectives and at the expense of truth and informative neutrality.

### **3.1.2. The Special Telecommunications Law**

With respect to monopolistic practices and abuse of position, the Special Telecommunications Law in Article 39, enacts:

All telecommunications services will be provided in free competition, preventing monopolies, restrictive or abuse of dominant position practices and unfair competition,

ensuring the national security, and promoting efficiency, universality, accessibility, continuity and quality of service. The National Telecommunications Council (National Assembly, 1992).

At this point, the regulatory nature of the article is antitrust. But if we keep reading we will see the contradiction in the same article:

It is recognized for the Municipality of the Cuenca County, Province of Azuay, the ownership of public telecommunications service to operate in connection with the rest of the country and abroad, likewise it may provide services directly or through concessions. (National Assembly, 1992).

Depending on the legal framework, the business investment is at risk, preventing foreign investment is especially dangerous for multiple reasons, particularly as the technology comes from abroad. The monopoly is characterized by the market failure where excessive prices, low performance and low quality are set.

The governments agreed policy measures that fully affect the internet services market. Among the most important is the enactment of laws affecting the price control of telephone service, the liberalizing telecommunications market measures, the regulation of content and infrastructure improvements. (Miguel de Pascual, 2004, page 131).

It is necessary to restrict the monopoly for citizens to obtain a better access to communications. Another way to monopolize the market is the alliance between companies to increase prices and reduce quality, taking over the market.

### **3.1.3. The Organic Disabilities Law**

On the Regulations to the Organic Disabilities Law of December 17, 2013, Article 19 guarantees the compliance for tariff reductions to internet users with disabilities, committing to companies to conduct annual audits to monitor an implementation of benefits. The nature of this legislation is connected with the principles of Good Living advocated by the Constitution.

### **3.1.4. The Communications Law**

In the recent Communications Law of 2013 this refers to the communication through the internet on two articles where it is stated that the Law does not regulate the content on the network, although this does not exclude criminal and civil liabilities that may arise.

Article 20 of the same Law, requires the media to reproduce messages from social networks when there is a correct identification of authors, under penalty of being directly responsible for the contents when they fall into crime of any nature.

The Communications Law of 2013 in line with a spirit presented by the Constitution proposes a new law to democratize the use of new technologies in relation to disabled individuals. The Article 37 requires the State to make policies that enable the development of research that allow preferential access for handicapped people.

The Communications Law of 2013 in second whereas, recognizes the rights of the communication information and technologies in accordance with the principles and standards of the Interamerican Convention on Human Rights. It opens a wide and prevented range for possible technological changes that at the time of making the Law do not exist or are not applied to the market.

### **3.1.5. The Code of Childhood and Adolescence**

In relation to this regulation, the Code of Childhood and Adolescence in Article 47-f protects children from that content, and Articles 52-1 and 250-4 protects the child from involvement in the contents.

Article 57-21 of the Code of Childhood and Adolescence:

It is recognized and guaranteed to the districts, communities, people and nations in accordance with the Constitution and the arrangements, agreements, declarations and other international human rights instruments, the following collective rights: 21. That the dignity and diversity of its cultures, traditions, histories and aspirations are reflected in

public education and the media; creating its own media within its languages and access to others without any discrimination. (National Assembly, 2003).

Communities therefore, are covered by this article, where cultural diversity should be reflected in public education and the media, protecting and promoting the particular languages. This connects to the Articles of the Copyright Constitution of December 28, 2006.

### **3.1.6. The Copyright Law**

Article 377 of the Copyright Law of 2006, establishes "A sui generis system of collective intellectual rights of ethnic groups and local communities is established. Its protection mechanisms and application shall be subject to a special law that is enacted for the purpose ". (National Assembly, 2006). Collective rights are a benchmark in the slogans regulated under the Good Life, where the rights and peculiarity of people that were excluded from society is protected.

### **3.1.7. The Organic Law of Municipalities**

To achieve a dynamic progress in the implementation of new technologies in communication, the municipal organic law regime was set out in Ecuador. This law in Article 177 authorizes the municipalities to establish public companies to provide services, to ensure a greater efficiency and to improve public service delivery. To these services a relevant municipal taxes rates shall be implemented. The Article 177 of the Organic Law of Municipalities enacts:

The municipality may establish public companies for the provision of public services, where in the opinion of the council, it is more appropriate to municipal interests and to ensure greater efficiency and better provision of public services. (National Assembly, 2005).

Therefore, the municipalities can develop communications and will offer through their public services, advances in communication that private companies are not offering, either the profitability is not consistent with current expectations, or they have not occupied the niche of business due to time or infrastructure.

### **3.2. The Legal Context of Electronic Commerce**

Depending on the ideological position, different theories on the applicable legal determination to "cyberspace" and commercial scenes that operate on it have been created.

Thus, in an extreme aspect of the declaration of the independence by John Perry Barlow is an example J. Perry is co-founder of the Electronic Frontier Foundation who defends organization of digital rights. Among his works, those that stand out are "Declaration of Independence of Cyberspace" and "The Economy of ideas". Its postulation is eloquent:

The governments derive their just powers from the consent of the governed. You have never been requested nor received ours. We do not invite them. [...] cyberspace is not within our borders. Do not think that you can build it, as if it were a public construction project. Do not think you can. It is an act of nature and it grows itself through our collective actions. [...] Your legal concepts of property, expression, identity and context do not apply to us. The only law that all our cultures will recognize is the Golden Rule: from ethics, self-interest and the common good (Barlow, 2001, page 29).

Barlow believes that the absence of an owner in cyberspace, makes no subjection to state standards. This is a radical theory, here no vision on the protection of natural individual rights is held.

The self-regulatory formulations are exposed by those who believe that the network should be standardized by the users. The basis for this theory is established by crossing similarities between business needs and desires of those who interact on the network, generating legal situations that would solve the actors themselves.

To consider self-regulation as the only indicator, also deserves some objections from us. Although it is founded in the best intentions, the theory seems irrelevant in an impossible delimited field. How to achieve consensus among millions of users who now operate using the electronic way? It is not a minor detail to assess the alleged consensual nature

of standards developed by stakeholders to find a barrier about the difficulty of achieving widely and in such heterogeneous framework. (Miguel Asensio, 2011, page 80).

Then, the referred issue led us to a dead end, so this position must be discarded and be conducted through other theories with greater assurance and legal security.

Contrary to these two positions there is the state adjustment and the private co-regulation, where the State enforces the standards and where a certain regulation is admitted by the private side to complete the rules. To regulate behavior and to create legal rules based on democratic legitimacy, States as essential elements to regulate behavior and to create legal rules based on democratic legitimacy are considered. Regarding this, the new technologies and its technological developments can be legally approached at all times and encourage both, a state of legality and safety. About this control theory, Shapiro states:

For this purpose, cyberspace is not a new place but anyway, a lens or a filter through which the world looks, an interface that gives a way to exercise control over all things. (Shapiro, 1999, page 15).

As we have seen, electronic commerce has an international character, consequently, the competent legal discipline given its characteristics, is Private International Law.

Private international law is the set of rules that fundamentally regulates the private law relations (of individuals or individuals with the State) in the presence of foreign element, applying national and foreign law solution, as long as this does not go against the rules of domestic law enforcement (Guerrero, 2006, page 14).

Therefore, Private International Law deals with the private relations of transnational traffic. Its legal framework is composed of conventions, protocols, designed laws, legislative guides, case, practices and customs law, that govern the relationships of people in the international context.

The states that regulate electronic commerce are considered individually and tend to establish a system of time-space equation, parameters of interest to determine the location of the responsibility of those who provide electronic services, as well as to regulate the

data border circulation produced in a relatively short time, trying to prevent this phenomenon is excluded from supervision for these causes. (Dreyzin of Klor, 2005, page 289).

The undeniable international character of the legal relationships that are built with e-mail leads to reflect on the most appropriate legal regulation and its application. National legislation is very important, although the need for a conventional legal framework is unquestionable against the unstoppable advance of technologies.

Therefore, the internationality of electronic commerce leads to argue that the methodology to follow is eliminating legislative contradictions of national character that exist and its effects on the practice of e-commerce.

Ecuadorian Law has regulations on Electronic Commerce which is the Regulation of the Law on Electronic Commerce, Electronic Signature and Data Messages, Executive Decree # 3496. RO/735 of April 17, 2002. From now on, by necessity of brevity, I will call: LCE.

This legislation was developed from a Model Law drawn up by the United Nations.

The Model Law on international commercial arbitration of the United Nations for Commission on International Trade Law approved by Resolution 40/72 of the General Assembly in plenary number 112th held on December 11, 1985, responds to the latent commitment between European and Anglo-Saxon legal practices. [...]. Thus, the Model Law was designed specifically for international commercial arbitration but its solutions are valid for domestic arbitration in most cases. (Arias Pou, 2006, page 714).

It was therefore, a developed standard for computer networks and electronic signature, but due to the dates on which it was intended - 1985, not for cell phones and its uses in electronic commerce, as it is happening today. Besides, the legal mechanics of the Anglo-Saxon world and North-European, do not have similarities with the legal principles of our Ecuadorian legislation.

This law was designed to create certain patterns of uniformity that the states could use as a guide when issuing its own national laws on electronic commerce. Its main objective was to generate some model provisions seeking to resolve the legal uncertainties



generated by innovative features of trade electronically conducted. The suggestion to countries comes from the United Nations system to adopt and adapt its internal systems and intended to flatten the way for harmonization and universalization of treatment of the e-commerce. (Gutiérrez, 2008, page 121).

Ecuadorian Law has assimilated therefore the provisions of the Model Law, making only occasional aggregates. Perhaps, the legislators in charge of the United Nations in the eighties and nineties thought about electronic commerce over the internet and never thought that cell phone minute demands would be very common of e-commerce today.

The LCE defines the Electronic Commerce in the General Provisions as: "It is any commercial transaction that is carried in part or in full, through electronic information". (National Assembly, 2002).

Article 1 of the LCE defines the purpose of the Law:

This Law regulates the data messages, electronic signature, certification services, electronics and telematics recruitment; provide electronic services through information networks, including the electronic commerce and the protection to users of these systems. (National Assembly, 2002).

Articles 2 and 3 of the LCE define the legal concept of data messages granting them a legal validity and a probative force. The Article 4 reaffirms the intellectual property of the messages.

Regarding electronic messages and personal content through the internet, the new Communications Law stands out from its regulation without exclusion of criminal or civil liabilities of personal internet content that may arise. Article 4 of the Organic Law of Communication:

This law does not regulate the information or opinion that is issued personally through internet. This provision does not preclude criminal or civil actions where there is room for committed offenses on other laws through internet (National Assembly, 2013).

The Law, also in Article 5, equates the communications media through the internet in its regulation: Social media are considered those whose contents can be generated and replicated by the means of communication through internet.

Furthermore, the Law in Article 35 grants the right to individuals to have universal access to information and communication technology, the use of these technologies for enhanced enjoyment and the training and access to development opportunities. A democratic and important concept that provides the opportunity for all citizens and evenly.

In Article IV, diffusion agencies and organization and control of services are regulated. Specifically the Article 36 of the LCE:

For purposes of this Law, the Board of Foreign Trade and Investment “COMEXI” will be the body that promotes and supports the electronic services including e-commerce, and the use of electronic signature in promoting foreign trade and investment. (National Assembly, 2002).

COMEXI is a forum for political cooperation on foreign trade and investment. Some strategies to encourage the productive sector, the market flexibility, the stimulation of the State actions are established. In particular, the areas on which COMEXI has reserved powers are: tariff policies, international negotiations, policies for the development of special regimes, measures to counter unfair trade, to define policies aimed to achieve greater competitiveness of domestic production, and to approve the export promotion plan.

And, Article 37 of the LCE:

The National Council of Telecommunications “CONATEL” or the entity representing it, will be the authorized agency with registration and regulation of accredited certification bodies. As of approval organism, it may also:

- a) Cancel or suspend the authorization of accredited certification bodies on the report motivated by the Superintendence of Telecommunications;
- b) Revoke or suspend the electronic signature certificates when the accredited certification body is issued without observing the legal formalities on the report of

Telecommunications; and c) Other attributed to the law and regulations. (National Assembly, 2002).

With the Official Registration # 010 of August, 2009 the establishment of the Ministry of Telecommunication and Information Society is enacted, also in this decree, CONATEL is constituted absorbing CONARTEL (National Council of Radio and Television. CONATEL is established for managing and regulating the telecommunications in the country. It is domiciled in Quito and is responsible for a series of allocations as detailed below, being the most important to our research: To enounce the policies of the state with relation to telecommunications; To approve the Telecommunications National Development Plan; To approve the Frequencies Plan and the use of radio spectrum; To approve the rules of homologation, regulation and control of the equipment and telecommunications services; To approve the schedules tariff of telecommunications services open to the public correspondence; and Connection charges that must pay in obligation the dealers, including leased circuits.

Article 49 of the LCE regulates the consent for the use of electronic media:

To require that the information on an electronic service including e-commerce, either is in writing, the use of electronic media to provide or permit access to that information shall be valid if: a) The consumer has expressly consented to such use and has not objected to this consent; and, b) The consumer prior to his consent has been updated successfully, clearly and accurately. (National Assembly, 2002).

The information may be required physically (paper or electronic means); the consumer should have the right to object later consents, to be informed of the contractual consequences of doing so, and the procedures to obtain a printed copy of the conclude contracts.

This standard protects the consumer for possible abuses of the service. It is a normative consequence of a lack of clarity in the legal concepts and the legal regulation on consumption and consumer.

Commercial transactions through the network and by cell phones are abundant in Ecuador. Market penetration and performance have turned it into a large e-commerce platform. In all this technological revolution, the LCE is built on principles suggested by the United Nations in 1985, which testifies the need to update the regulation.

Then, business practices and economic interactions that the legislation governed on a technological base, now are giving their service in advanced telephony, which did not happen before. The Special Telecommunications Law with its various reforms regulates services and state grants as well as companies that provide these services, but does not stop encompass all the legislation that could give this new style of trade, whereby, there is an absence of specific regulations for the new e-commerce.

According to SENATEL data on advanced telephony, in 2002 Ecuador had a total AMS active lines (advanced mobile system) of 1'560.861; compared to January 2014, the total rises to 17'868.886. (SENATEL, 2014, page 1). The data speaks for itself. The legislative regulation of LCE which was enacted in 2002 was sustained over a recurrence of very little use compared with current dates.

The e-commerce exceeds the internet, since it is possible to develop it using different technologies. The internet was not born to use computer networks for commercial purposes, although its use in this general area did not delay its spread. Initially, the e-commerce was EDI (electronic data interchange); its remarkable expansion warns of the possibility of obtaining significant advantages through the open network architecture, stimulated by strong economic incentives. (Dreyzin de Klor, 2005, page 278).

These incentives, as we saw in the previous chapter are reflected in a reduction of administrative and imperative costs, the decrease in the process of distribution and intermediation, the possibility to operate throughout the day, the improvement of national barriers and the increase of the speed of transactions.

Despite the importance of the internet and cellular telephony, there is no regulation on digital convergence or services, nor a definition of data transmission by cellular, mobile electronics or hiring additional services. Some communication companies like Telmex or TVCable offer internet services in IP telephony and voice, even if the law is not very

clear, it is regulated largely by outdated laws. The suitability of a particular law would end with its legislative dispersion in Ecuador. This law should determine whether the IP voice is a long distance telephony service or a value-added internet service.

The Special Telecommunications Law has not been amended at any time on electronic contracting. In fact, the rules on telephony are similar to regulations that provide services such as water or electricity, which are a compendium of modern and appropriate standards to the context of e-commerce.

Article 57 of LCE:

The use of radio spectrum frequencies requires an enabling title approved by CONATEL and granted by the Secretary, for which the corresponding values will be paid. The payment for the granting of frequencies when there is no competitive public processes, will be fixed by CONATEL on the basis of a technical and economic study including: the requested bandwidth and the coverage area of the principal of equal treatment, everything under this. The enlargement, extension, renewal or modification of the conditions established in the enabling title will require a new one. (National Assembly, 2001).

All advanced telephony services and the hiring of nearly eighteen million mobile numbers, has its roots in this Article. Mobile service in telecommunications has undergone a major evolution. The numbers confirm this: in the last twelve years we have seen a growth of 42.53%. Similarly, the technological change has been amazing.

The perception of actors involved in the telecommunications sector regarding the regulatory environment, is that this is ineffective, I mean it proves not to be capable of ensuring an attractive environment for investment. Therefore, the regulatory risk in telecommunications in Ecuador is high. In addition it was found that there is a slightly differentiated perception between the regulation for the sectors of fixed and mobile telephony. Although in both cases the regulation is perceived as ineffective, the mobile industry features a major weaknesses in all assessed areas. (Carrión Gordon, 2007, page 47).

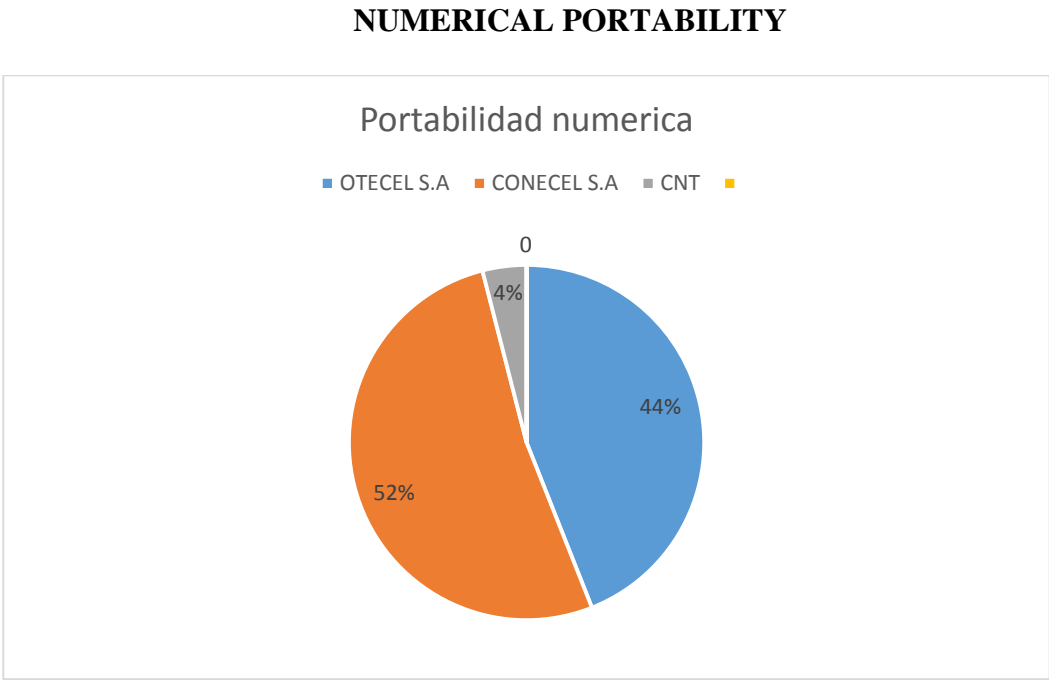
Perhaps one of the main reasons for its inefficiency is that the law is outdated, being established in 1992 it has been amended seven times, and its primary mission over the

years has been to strengthen the process of privatization in Ecuador that has failed dramatically. The rapid evolution of technology makes urgent a complete and effective regulation that covers all needs.

The last reform came with the 2000-4 Law published in the Supplement to Official Gazette 34 of March 13, 2000 within the Economic Transformation Law popularly known as Trole I Law. The main innovation that was incorporated was the statement of the Regimen of Free Competition in Telecommunications. With this background, in April 2001, the General Regulations of the Telecommunications Law was published, which is the legal instrument that regulates in detail the Ecuadorian competition in telecommunications and was renovated in June, 2002. (Carrión Gordon, 2007, page 12).

Then, despite the fact that a regime of free competition is experienced, the current situation seems to be the opposite. The fixed telephony is controlled by two operators of geographic monopoly, which handles 93% of the market, while the cellular telephone service is controlled by a duopoly with 96% of the market, without any expectation that other operators will appear.

**Figure 3. Numerical portability of the advanced mobile service in Ecuador**



**Source:** Secretaría Nacional de Telecomunicaciones, January, 2014  
**Prepared by:** Diego Vásquez

OTECCEL S.A. would be managed by the Porta company; CONECEL S.A. by Movistar and finally CNT EP, administered by Alegro, a brand owned by the State.

After the promulgation of the constitution of 2008, the Superintendency of Market Power Control was created, Article 335 of the Constitution imposed on the State's obligations to regulate and intervene in trade and economic transactions, establishing a sanction mechanisms to avoid any practice of private monopoly or abuse of dominant position in the market and the unfair competition.

### **3.3. Comparative Law at the Hispanic Level**

México has a legislation not as developed when compared with its northern neighbor, nevertheless, it is a country with a wide vanguard legislation among the countries of South America.

The transaction of sales through the network is governed by the laws established in the Commercial Code, the Civil Code and the Federal Consumer Protection Law without giving a normative difference with current commercial performances. In accordance with these regulations, emails help and protect suppliers and bidders in commercial transactions, taking advantage that the Civil Code force prices and services to keep it as it was offered.

Mexico currently has a legislation that provides enough security for the practice of electronic commerce to be performed, since from a substantive point of view, the Mexican legislation governing the operations of purchase and sale, is not an impediment for electronic messages to have legal effect as well as acceptance and provision or for a contract to be perfect. An option to solve any problem will go to arbitration. (ACM Legal, 2013, page 1).

In the Civil Code the Second Title of the Second Book on electronic commerce was added, where for the bidder it is possible to show his goods or services through electronic

media. The sent, received, stored or communicated information is an act of force. With this reform the consent regarding agreements and commercial contracts is improved.

**Panama.** The enactment of Law 43 of July, 2001, made a significant shift in the Panamanian legislation. Here, documents and electronic signatures, the provision of certification services, accreditation processes and sharing of documents and files online were defined. This law is framed within the democratic spirit of free competition, technological neutrality, international compatibility and equivalences with support and traditional performances.

The Law 51 of July, 2008 regulates e-commerce comprehensively adopting measures for the development of this modality. The framework governing the electronic signature as well as the process that records and monitors the technological storage service is available.

Ecuadorian legislation does not regulate the provision of technological storage services. This service is increasingly important for saving space and staff dedicated to store documentation in companies.

**Colombia.** With the Law 527 of August, 1999 the access and use of data messages of e-commerce and digital signatures is defined and normalized. Here as well, it tries to adopt the regulatory framework established by the United Nations for technological development of e-commerce security as in Ecuador.

As in many countries with a current civil code, it had to deal with nine areas of legal and regulatory scope (such as e-commerce) through separate legal provisions that can be applied to an integrated regulation to all these new spheres instead of modifying the different codes, which often leads to a complex legislation. (United Nations, 2006, page 39).

With the same consequences in our country, Colombia lacks clear and concise rules conferring legal agility and safety standards in amending its legislation.



The development of electronic commerce in Colombia is still limited and the lack of a good legislation and insecurity makes hard to work in this area in this country.

**Chile.** In Chile we can find different rules that separately regulate electronic communications and electronic signature. The Supreme Decree # 81 of June, 1999, regulates the electronic documents with digital signature. Before this decree there are several resolutions and legal provisions of lesser rank that were established to standardize new behaviors that were happening

Chile is governed by the law on electronic documents, electronic signature and certification services of such signature # 19.799 published in the official journal of April 12, 2002.

The closest approximation that exists, is the General Telecommunications Law, which in its current form does not recognize the phenomenon, limiting itself to establish that the problems caused by the internet should be resolved according to the rules contained in the constitution and in general rules on civil and criminal liability. Anyway, the Chilean Parliament has responded to the situation with a range of draft legislation which are at different stages of its process before Congress and seek to incorporate both the aforementioned General Telecommunications Law as the General Consumer Law.

A reliable payment infrastructure would help to increase security and confidence and would encourage the use of more sophisticated applications. The online payment systems are essential. In this field, it is necessary for governments to cooperate with the private sector, including chambers of commerce and especially the banking sector and business associations of retail sales. The Chilean example shows that the bank may represent a crucial role in the development of network transactions. (United Nations, 2003, page 46).

This shows that not only progress goes along with legislation, or at least legislation on electronic commerce, but it must also be accompanied by an appropriate financial system that facilitates the evolution. The Ecuadorian banking system is outdated and obsolete when compared to the business structures of Europe or North America. It is possible that a parallel legislation on banking and financial companies (which is an essential element

in any economic-social growth of every nation) in our country would facilitate the development of this sector and would produce the expected progress.

## CONCLUSIONS

- The technologies in the communications and information environment were analyzed. We have observed their evolution, the implementation in our society, the changes that have occurred in the behaviors, in the social-commercial processes and in education. Young people are more likely to adapt to these new technologies than older groups.
- Internet and its influence on today's society, from emails and instant messages on mobile telephony have generated a new concept of communications, making them faster and interacting with its users. The electronic signature is a novelty that the internet has brought. Stipulations and obligations are secured with this instrument which is a remarkable development expected in the coming years. A legislation that can legally provide these trends would improve the framework for action and development.
- We have seen the development of electronic commerce and how it has been acting with new technologies. The cell in the beginning is basically a common element. It has accelerated the market exchanges and there are high expectations in the further development of its technology. The appearance of the tablet is combining a new way of communication, elements of development and trade possibilities which in a few years will conquer the market.
- With the appearance of the internet, the first companies specialized in trade with this new technology were developed. Amazon and eBay were the pioneers. At the beginning, they had acceptance for its innovative character, a few years later, it was thought that these companies could not compete with the traditional market. Time has shown that these assumptions were false since these companies have a desirable market share today and their progress is unstoppable.

- Amazon's adaptation to new market trends is one of its strongest points. The company has created the Kindle, a way to read books digitally, saving the cost for users.
- Kindle implemented its technology by adjusting to Wi-Fi and 3G, with the possibility to communicate by internet and the access to available portals.
- Ecuadorian legislation has had significant progress but is still lacking a more complete development that can cover all the needs that society demands of the legislator. Synthesis of the laws is confronted with rapid technological change. In the past there was a space between the appearance of an item, its settlement in social customs and the development of the law. This has been changed by the rapid advance of new technologies and its unstoppable commercial and social application.
- The Constitution of 2008 has opened the possibility of creating a legal framework to protect all these advances in communications and electronic commerce. Regulations such as the Law on Electronic Commerce, Electronic Signature and Data Messages of 2002, the Copyright Law of 2006, the Special Telecommunications Law reformed in 1992 and the Organic Municipal Government Law of 2005, are all prior to the Constitution and some of their contents do not anticipate the new assumptions that are occurring in electronics business practice today.

## **RECOMMENDATIONS**

- The rapid evolution of technologies requires an unstoppable adaptation to changes in society. Young people are more predisposed to assimilate these innovations, but middle-aged people and the elderly, need special attention in order to carry out their way of life according to these changes.
- Development of new legal cases through internet communications, the stipulations between companies and users and the electronic signature, are essential to update the legislation and to suit to the new needs.
- E-commerce from the cell and tablets has implemented precipitously the transactions. It is necessary to develop a law to regulate its practice and protect the consumer against companies.
- Banking practice to facilitate the transactions through electronic commerce should be expedited. The payment formula through the network and cards is outdated in Ecuador's banking mechanics. To fortify consumer legislation and financial practices would produce a greater flow in the market of our country.
- Ecuadorian legislation requires a renewal to meet the new needs that are occurring. The lack of these has as its first victim the citizen and the consumer who is defenseless against abuses by companies seeking their advantage over any moral or ethical trait. Therefore, it is recommended to accelerate and to expedite the development of rules that protect the citizen.

## BIBLIOGRAPHY

- Abreu, C. (2003). *Internet Journalism* (1<sup>st</sup> ed.). Caracas, Venezuela: Editorial Fund of Humanities and Education.
- ACM Legal. (2013). *Legal Situation of E-commerce in Mexico*. Obtained in [http://www.acmlegal.com/index.php?option=com\\_content&view=article&id=70%3Asituacioncomercio&catid=35%3Acorporativo&Itemid=53&lang=es](http://www.acmlegal.com/index.php?option=com_content&view=article&id=70%3Asituacioncomercio&catid=35%3Acorporativo&Itemid=53&lang=es)
- Alastruey, R. (2010). *The Networking* (1<sup>st</sup> ed.). Barcelona, España: UOC.
- Antolin, C., Galadí, D., Llofriú, M., Méndez, A., Pascual, L., Pertusa, J., & Tuñón, I. (2010). *Sciences of the Contemporary Word: Reflections on the Content of Sciences and our Life Style*. Valencia, España: PUV.
- Araya, C., & Dawes, R. (2003). *Analysis of the Ebay Business Model*. Santiago: University of Chile.
- Arias Pou, M. (2006). *Practical E-commerce Manual* (1<sup>st</sup> ed.). Madrid, España: The Law, Grupo Wolters Kluwer.
- Asamblea Nacional. (1992). *Reform of the Communications Special Law*. Official Registry.
- Asamblea Nacional. (2001). *General Regulations of the Reform of the Communications Special Law*. Official Registry.
- Asamblea Nacional. (2002). *E-commerce Law, Electronic Signature and Data Messages*. Official Registry.
- Asamblea Nacional. (2003). *Code of Childhood and Adolescence*. Official Registry.
- Asamblea Nacional. (2005). *Municipal Organic Law Regime, Coding*. Official Registry.
- Asamblea Nacional. (2006). *Copyright Law*. Official Registry.
- Asamblea Nacional. (2008). *Constitution of Ecuador*. Official Registry.
- Asamblea Nacional. (2013). *Communications Law*. Official Registry.

- Backstrom, L. (November 21, 2011). *Anatomy of Facebook*. Obtained in <https://www.facebook.com/notes/facebook-data-team/anatomy-of-facebook/10150388519243859>
- Balaguer Prestes, R. (2003). *Internet: A New Psychosocial Space*. Montevideo, Uruguay: Ediciones Trilce.
- Barlow, J. (2001). A Declaration of the Independence of Cyberspace. En P. Ludlow, *Crypto Anarchy, Cyberstates, and Pirate Utopias* (. Antonio Forns, Trad., págs. 28-49). Cambridge, EE.UU.: Massachusetts Institute of Technology.
- Barruezo García, J. (2003). *The Modern Retail Management* (2nd.ed.). Madrid, España: ESIC Editorial.
- Bello, L., & Ramos, A. (November, 2012). Importance of E-commerce B2C and Impact of Innovation in Purchasing Behavior. *Revista Abaco*, 3, 2ª Época(73), 24.
- Berumen, S., & Arriaza, K. (2008). *Evolution and Development of ICT in Knowledge Economy*. Madrid, España: Ecobook Editorial del Economista.
- Bravo, R. (2012). *Amazon*. Barcelona, España: Profit Editorial.
- Burns, C. (1997). *Internet 2 and Next Generation Internet*. (A. F. (AiA), Trad.) Washington, EE.UU.: Committee on Commerce.
- Cabero, J. (2001). *Educational Technology: Design and Use of Education Media* (1<sup>st</sup>. ed.). Barcelona, España: Ediciones Paidós.
- Cardoso, G. (2010). *The Media in the Network Society* (2nd. ed.). Barcelona, España: UOC.
- Carmax. (2013). *Advances of the E-commerce in Ecuador*. Obtained in <http://www.carmaxrentacar.com/comercio-electronico-ecuador.html>
- Carrión Gordón, H. (2007). *Regulatory Environment for Telecommunications*. Obtained in [http://www.imaginar.org/docs/TRE\\_Ecuador\\_final.pdf](http://www.imaginar.org/docs/TRE_Ecuador_final.pdf)

- Carrión Gordón, H. (October, 2007). *Regulation and Investment in Telecommunications. Study Case for Ecuador*. Obtained in [http://www.dirsi.net/files/tre/TRE\\_Ecuador\\_final.pdf](http://www.dirsi.net/files/tre/TRE_Ecuador_final.pdf)
- Cortes Generales de España. (2003). *Law 59/2003*. Madrid: «BOE» núm. 304, December 20, 2003.
- Crespo Rodríguez, M., & Zafra Jiménez, A. (2005). *Transparency and Good Governance: Its Regulation in Spain..* Madrid, España: The Law.
- de Miguel Asensio, P. (2011). *The Private Internet Law* (3rd. ed.). Madrid, España: Aranzadi Thomson Reuters.
- de Miguel Pascual, R. (2004). *Information Society to Spanish*. Alicante, España: Editorial Club Universitario.
- de Pablo Redondo, R. (2010). *Electronic Business* (2nd. ed.). Madrid, España: Uned Aula Abierta.
- derechoecuador.com. (February 24, 2014). *Organic and Integral Penal Codel*. Obtained in *Revista Judicial*: <http://www.derechoecuador.com/articulos/detalle/archive/legislacion/codigos/2014/02/24/codigo-organico-integral-penal>
- Díaz, E., Alvarino, G., & Carrascal, N. (2011). *Approaches to College Learning in Technological Environments*. Montería, Colombia: Cymtedl.
- Dreyzin de Klor, A. (2005). The Law Applicable to Electronic Commerce. En L. Oviedo Albán, & A. Calvo Caravaca, *New Contracting Law* (Vol. II Colección Globalización y Derecho Privado, págs. 273-299). Revista Sequencia.
- El Telégrafo. (June 23, 2011). Ecuador Doubles Electronic Sales *El Telégrafo*, pág. Economía.
- Fernández Domingo, J. (2006). *The Electronic Signature: (Aspects of the Law 59/2003 of December 19)*. Madrid, España: Reus S.A.



- Fleming, P. (2000). *Let's Talk About Interactive Marketing* (2<sup>nd</sup>. ed.). Pozuelo de Alarcón, España: Esic Editorial.
- Franco, J. (2012). *Ebay*. Barcelona, España: Profit Editorial.
- García del Castillo, J., & López, C. (2009). *Media, Advertising and Addictions*. Madrid, España: Editorial Edaf S.L.
- García del Poyo, R., Gil Rabadán, J., Merino, J., & Somalo, I. (2011). *The Book of E-Commerce* (2nd. ed.). Alarcón (Madrid), España: ESIC Editorial.
- García, F., & Ruiz, M. (2013). *ICT in Schools: Theory and Practice TIC* (1<sup>st</sup>. ed.). Alicante, España: Club Universitario.
- García-Valcárcel, A. (2008). *Research, Information Technology and Communications for Educational Innovation*. Salamanca, España: Ediciones Universidad Salamanca.
- Garrido, A. (2012). *Twitter. Social Networks in Education*. Obtained of Introduction: <http://twitter.antoniogarrido.es/introduccion.html>
- Gómez García, C., González Verdugo, M., & San Frutos, A. (2012). *Judgment on P2P Legality in Spain*. Madrid: Universidad Complutense de Madrid.
- Graham, G. (2006). *Internet: A Philosophical Inquiry*. Valencia, España: Fronesis Cátedra Universitat de Valencia.
- Grande Esteban, I., & Abascal, E. (2011). *Fundamentals and Techniques of Commercial Research*. (11<sup>th</sup>. ed.). Madrid, España: ESIC Editorial.
- Guerrero, S. (2006). *Private International Law*. México, Méjico: Miguel Angel Purrua.
- Gutiérrez, M. (2008). E-commerce Regulations Development in the Countries of the Andean Region. *Revista de Derecho Informático*, 121.
- Hortalá, J., & Ibáñez, J. (2001). *Internet for the Tax Professional*. Valencia, España: Cisspraxis S.A.

- IBM. (2014). *Sterling B2B Integration Services Plus*. Obtained in Help to Increase the Capacity and Profitability of its Operations B2B: <http://www-03.ibm.com/software/products/es/integration-services-plus/>
- Keat, P., & Young, P. (2004). *Business economics* (4th.ed.). México, México: Pearson Educación.
- Ken, H. (June 20, 2013). The Trade War is now Electronic. *CNN Expansión*, Empresas.
- Korntheuer, R. (2013). *Ecuador: Shopping and E-commerce*. Obtained in E-Commerce in Ecuador: <http://seo-quito.com/post/46245338306/ecuador-centros-comerciales-comercio-electronico>
- Kotler, P., & Armstrong, G. (2011). *Fundamentals of Marketing* (6<sup>th</sup>. ed.). Madrid, España: Pearson Educación.
- Laso, I., & Iglesias, M. (2002). *Internet, Collaborative Commerce: New Business Models* (2nd. ed.). Madrid, España: Ediciones Mundi-Prensa.
- Laudon, K., & Laudon, J. (2004). *Management Information Systems: Managing the Digital Company* (8<sup>th</sup>. ed.). México, México: Pearson Educación.
- Lévy, P. (2007). *Cyberculture: Report to the Council of Europe*: (1<sup>st</sup>. ed.). Rubí, España: Anthropos Editorial.
- Martín Urbano, P., & Tostes Vieira, M. (October-December 2001). The Other Faces of Globalization. (J. M. Klein, Ed.) *Social Documentation, Journal of Social Studies and Applied Sociology*(125).
- Maudos Villarroja, J., & Fernández de Guevara, J. (2008). *The Spanish Banking Sector in the International Context: Recent Developments and Future Challenges*. Bilbao, España: Fundación BBVA.
- Monge González, R., Alfaro Azofeifa, C., & Alfaro Chamberlain, J. (2005). *ICT in PYMES in Central America: Impact of the Adoption of Information Technologies and Communication in the Performance of Companies* (1<sup>st</sup>. ed.). San José, Costa Rica: Editorial Tecnológica de Costa Rica y el Centro Internacional de Investigaciones para el Desarrollo.

- Naciones Unidas. (2003). *The Roads Towards Information Society in Latin America and the Caribbean*. Santiago, Chile: Naciones Unidas.
- Naciones Unidas. (2006). *Analysis of the Investment Policy: Colombia*. Génova, Italia: United Nations Publications.
- Noguera Vivo, J. (2012). *Networking and Journalism, when News Socialize* (1st. ed.). Barcelona, España: Editorial UOC.
- PuroMarketing. (February 5, 2013). *The Global Electronic Commerce Exceeded One Billion Dollars in 2012*. Obtained in <http://www.puromarketing.com/76/15171/comercio-electronico-mundial-supero-billon-dolares-2012.html>
- Sanmartín, J. (2007). *The Chat: A Technological Conversation*. Madrid, España: Arco Libros.
- SENATEL. (July, 2007). *National Development Telecommunications Plan 2007-2012*. Obtained in: [http://www.comunidadandina.org/telec/Plan\\_telecomunicaciones\\_ecuador.pdf](http://www.comunidadandina.org/telec/Plan_telecomunicaciones_ecuador.pdf)
- SENATEL. (2014). *Advanced Mobile Service, Density*. Obtained in <http://www.regulaciontelecomunicaciones.gob.ec/biblioteca/>
- Seoane Balado, E. (2005). *The New Era Of Trade: The E-Commerce* (1<sup>st</sup>. ed.). Vigo, España: Ideas Propias Editorial.
- Serrano, A., Cabrera, M., Martinez, E., & Garibay, J. (2010). *Digitalization and Global Convergence*. Ensenada, México: Conver-Gente.
- Shapiro, A. (1999). *The Control Revolution. How the Internet is Putting Individuals in Charge and Changing the World We Know*. (A. F. (AiA), Trad.) Nueva York, EE.UU.: Public Affairs.
- Straka, T. (2007). A Small Overall Venice. In J. F. Juarez, *Globalization: Visions and Challenges*. Caracas, Venezuela: Cuaderno Funtrapet / Serie Social.
- Tafur, M. (2014). Ecuador: Consolidated Financial Groups. *Economic Analysis*, Opinión.

- Torres Álvarez, H. (2005). *The System of Legal Certainty in the Electronic Commerce*. Lima, Perú: Fondo Editorial de la Pontificia Universidad Católica del Perú.
- TVE. (abril de 2013). *Six Disabled Young People Get Their First Job 'With a Smile '*. Obtained of <http://www.rtve.es/television/20130417/seis-jovenes-discapacitados-consiguen-primer-empleo-sonrisa/641941.shtml>
- UNESCO. (1997). *World Report on Information*. París, Francia: Organización de las Naciones Unidas para la Educación la ciencia y la cultura.
- Yamanaka, N. (2004). *High-Performance Backbone Network Technology*. (A. F. (AiA), Trad.) Nueva York, EE.UU.: Library of Congress Cataloging in Publication Data.