

THE RELEVANCE OF ELECTRONIC COMMERCE FOR DURABLE DEVELOPMENT. CHALLENGES FOR ROMANIA

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Abstract: This article aims to approach the topic of the electronic commerce considering the context of the durable development, without exclusively limiting to the economic dimension of sustainable development. This paper aims to offer a vision on the e-commerce based on an optimistic approach of the reconciliation between economic growth and durable development, but moderate by the current realities (digital divide between countries/regions, economic crisis etc). Furthermore, by identifying some of the problems that Romania encounters concerning the construction of a competitive information society, the article presents also the possible solutions that can help our country to benefit of the advantages of the e-commerce.

JEL classification: O33, L81.

Key words: electronic commerce, durable development, economic growth, digital divide, Information and Communication Technology (IT&C), information society.

Introduction

Durable economic development represents the type and the form of economic development which allows the fulfillment of the current consumption needs without compromising or impairing the needs of future generations. Durable development is defined in studies regarding economic theory (Popescu, 2005, pp.160) by a natural dimension (namely this dimension exists exclusively when the man made environment is compatible with the natural environment), a socio-human dimension (namely all outputs from the man made environment should meet directly the needs and interests of future generations which co-exist and inherit) and a national, regional and global dimension (namely the compatibility of optimization criteria, both on national, regional and global levels).

The modern vision of durable development, in future society, should establish the following major requirements at the national and global economy levels (Popescu 2005, pp.160):

- a fundamental revised behavior as a direct opposition to subjective and objective constraints of development and relation with natural environment;
- significant improvement, reflected in relative and absolute terms, of the development of emerging countries related to economic developed countries;
- a strategic planning with specific and common elements being in direct compatibility at the national and international levels;

- fulfillment of a balanced, rational and durable condition using the fundamental changing of values and objectives at individual, national and international levels;

- achievement of a durable development under the conditions of traditions, education and current activities and immediate interests creating a slow and controversial transformation; the success is achieved by a real understanding of the human condition, in this context by radical changes.

If we characterize the society of the future considering exclusively the durability as resulted from the previous assertions would be incomplete as a series of manifested tendencies during the last decade are not taken in consideration: recorded progresses in informatics, hardware and telecommunication industries, the emergency and rapid development of the Internet, use of new technologies and specific techniques which have imposed the restructuring of the education system and the fact that capacity of people to understand, know and innovate have become the central elements of the new economy.

For sure, the new economy implies a durable development but also induces an alternative approach of durable development itself. Theories regarding economic growth need to be reviewed to evaluate the role that science, technology, and innovation play in economic transformation in particular and sustainable development in general, because today a nation's ability to initiate and sustain economic growth depends on its capabilities in this domains (UN Millennium Project, 2005, pp.20). The vision of information and knowledge society integrates the objectives of durable development based on social equity and equality between chances, ecologic preservation, freedom, cultural diversity and innovative development, restructure of industry and business environment. The convergence of the information economy through IT&C (Information Technology and Communication), Internet and electronic commerce becomes as important in transformations as the industrial revolution. The Internet is a privileged vector for promoting the notion of durable development considering the structure of the network and the astonished facility represented by the electronic communication and the electronic commerce became an essential component of the durable economic development policies and continues to change the world economic environment and to recompose its organizational structures. As a consequence the electronic commerce has to be based on an optimistic approach of the reconciliation between the economic growth and the durable development.

These two visions, related to durable development and information society, are not incompatible, furthermore can be considered complementary and strong related with other aspects of economy of future.

Electronic commerce and economic development

E-commerce is one such commercial activity that has generated new dimensions in economic growth and that has a potential to add a higher value to businesses and consumers. Economic development involves the creation of novel economic activities (virtual organization, teleworking, virtual learning, electronic government, virtual reality assisted surgery). New productive sectors emerge and change the structure and organization of the old activities drastically along with new economy. The theories about growth suggest that such a process of structural change is crucial for accelerating growth. Specialists (Purohit, M. & Purohit, V., 2005, pp.68) have viewed this as a process of transformation, as a process involving changes in

productivity in the newly developing sectors, which in turn pushes up productivity in the traditional sectors.

Information and Communication Technology seems to have different effects on productivity and growth, presented in specialty studies (Purohit, M. & Purohit, V., 2005, pp.69) and further conciseness rendered. First, capital goods investment in the sector of Information and Communication Technology contributes to overall capital deepening and therefore, helps in increasing labor productivity. Second, rapid technological progress in the production of Information and Communication Technology goods and services may contribute to higher multi-factor productivity growth in this producing sector. And third, greater use of Information and Communication Technology may help firms to increase their overall efficiency, and thus raise multi-factor productivity.

E-commerce arguably has a potential to add a higher value to businesses and consumers in developing countries than in developed countries (Kshetri, 2007, pp.443). In a developing country, a company's success depends on its ability to simultaneously deploy and manage multiple e-business models. In relatively small markets of developing countries, firms can add value by bundling together various products and services. At the same time, however, firms have opportunities to deliver higher value by vertical integration and bundling various services (Kshetri, 2007, pp.449). To generate value at full potential, developing country-based companies focused on Internet business models are required to outsource some functions to the industrialized world because it is impossible for a developing country-based company to break all e-commerce related barriers.

Regarding the increased potential of e-commerce in terms of productivity increases and economic growth, the specialty literature (Ghibuțiu, 2003, pp.169-173; OECD, 1999, pp.13-16), highlights aspects that have a particular relevance in this context:

- the effects of and of e-commerce on the economy are of systemic proportions, affecting most aspects of production, distribution and consumption. Also, many of the new Information and Communication Technology applications are relative simply and it is expected that these should be adopted on a large scale and the gains they generate should be widely distributed in the economy;
- the economic relevance of e-commerce consists not only in the magnitude of the online transactions accordingly, but mostly in the changes which it induces in the functioning of the enterprises which assimilate it. Following these changes, major increases of productivity are generated by means of the efficientization of the economic processes and reducing of company costs;
- the Internet and e-commerce carries the potential of a substantial increase of the productivity in the service field, which is the biggest and the most dynamic sector of modern economies. The market of some large service categories is about to be more globalize than the market of material goods;
- facilitation of expansion of international transactions. Due to the ability of creating global public and private communication systems, which can be operated in safety conditions, Internet and e-commerce have a notable potential for the trans-frontier expansion of transactions and facilitates the international transactions in many ways: by diminishing the costs of distance transactions and increase of efficiency of commercial operations, extension of the scale of international commercial relationships and increase of commerce rate.

- even it is not a universal panacea, e-commerce is creating new opportunities for participation of the small and medium-sized enterprises in the international commerce and allowing them to become more competitive on the international markets;
- stimulation of the process of fragmenting the economic activities. Under the circumstances of constant expansion of the system of international production controlled by transnational corporations, e-commerce becomes an essential means of integration of the host-countries in the global economy;
- e-commerce offers the opportunity for “boundary crossing”. New business models, and changes in technology erode barriers that used to separate one industry from another. E-commerce illuminates differences that may exist between products, industries and countries, thereby highlighting the need to reform inconsistent regulations.

Dimensions of the durable development in terms of electronic commerce

Electronic commerce, the main vector of new economy, is able to induce the growth of productivity and efficiency at the macroeconomic level, as mentioned above. However, its activities that induce this positive impact should keep in line with the principles of durable development in order to obtain the sustainability of its effects. As a consequence, the article will present the important aspects of this topic relating the electronic commerce with the durable development sustaining the idea that the dimensions of the durable development could be identified within the development of e-commerce.

a) Natural dimension of the electronic commerce: The activity of the electronic commerce is compatible with the natural dimension of the durable development opposite to other activities that are harmful for the environment taking up the problem of multiple externalities since:

- electronic commerce do not require the construction of new physical sale points the construction works of large commercial centers altering in many ways the natural environment by changing the urban landscape;
- transportation and distribution of the goods ordered on line, processed in an organized and grouped manner, not in an individual mode with own transportation means, is able to sustain the reduction of pollution;
- the client has the possibility to compare multiple products and services considering the prices and the characteristics in order to benefit from this diversity without leaving the computer connected to the Internet; these aspects sustain the positive effect of the electronic commerce correlated with the possibility of diminishing the frequency of traveling towards large urban concentrations to buy products/services which can be acquired with low effort directly from home. The reduction of the traveling by own car within and outside the city from one commercial center to other, the diminishing of the driving to the office of those that administrate the virtual shops or work in connective fields being able to work from the distance generate the decongestion of the traffic within large cities, the decrease of pollution and volume of fuels and electric power used for day-to-day activities;
- the collection of wastes, including used IT equipments, including PCs (computers being the primary component of the electronic commerce) represent the solution for the problem induced by abandonned disused electronic appliances, and eliminates one of the possible ecological problem induces by the electronic commerce.

b) Socio-human dimension of the electronic commerce: Electronic commerce comprises a socio-human dimension considering:

- the emergence of the electronic commerce aims to comply with a human necessity characteristic for a certain level of economic-social development under the conditions of the evolution of society towards digital era, in particular: a greater possibility of choice in a shorter period of time at less expensive prices and insignificant effort;

- electronic commerce offers multiple possibilities for consumer to acquire products and services on a growing market that tends to become more global and allows the personalization and adaptation of products/services to the customers' requirements; electronic commerce offers new digitalized products and services and improves those that already exists;

- electronic commerce creates new professions and vocations, new jobs and imposes the development and the modern approach of education and research activity;

- human being is the central concern of the e-commerce's apprehension as this domain progresses according to the evolutions of the human needs that are identified and followed up by the instruments of the electronic commerce; it offers the possibility of market research allowing the perception of feed-back, the improvement of communication and relation especially with clients and suppliers of virtual shops and generally with virtual organizations;

- the development of electronic commerce boosts the process of globalization by going beyond the traditional barriers of commerce; a web site could be accessed by companies and interested final customers located all over the world where the Internet connections exist.

c) National, regional and global dimension of the electronic commerce. This dimension comprises, additionally to the boost of globalization process, mentioned previously, multiple elements such as:

- electronic commerce supports the expansion of the international transactions. As a consequence of the ability to create a public and private global communication systems that can be operated under security conditions, Internet and electronic commerce have a significant potential for the increase of the international transactions, as mentioned above;

- Internet and electronic commerce allow companies to sell products and services on the international markets significantly diminishing the transactional, communicational and sale costs indifferently the location and size of companies;

- Internet facilitates the commerce within the areas considered traditionally inappropriate for this economic activity. Thereby services that previously were offered almost exclusively by domestic providers nowadays these can be provided all over the world under the condition that providers and clients have access to modern communications;

- electronic commerce facilitates the access to different markets, information and other inaccessible resources providing a proper instrument for Small and Medium Companies to go beyond traditional barriers and increasing their competitiveness on the international markets;

- electronic commerce is able to fragmentize the chain of value into smaller functions that can be sub-contracted by independent providers; as a consequence the electronic commerce facilitates the participation of companies from undeveloped

countries as sub-providers to the production and commercial networks of large transnational companies.

Internet and electronic commerce – inequities reduction or a luxury reserved to privileged people?

There are some question marks about the capability of Information and Communication Technology (namely Internet and implicitly the electronic commerce) to diminish the inequity between people and improve the standards of live. Or, contrary, Information and Communication Technology represents exclusively a luxury reserved to some privileged people and as a consequence is created a so named “digital divide” – an additional factor which generates the widening of the gap between poor and rich people, between different social categories, countries, regions and continents. The notion digital divide was used for the first time by american specialists (Anderson et al., 1995, pp.37) in 1995 when they relieved the connection between the inequity generated by the access to the Internet and the difficulty of people in finding a job, to benefit by education, to get access to governmental information, to participate to the political dialogue and build social assistance networks. Digital divide supposes, according to romanian theorists (Niculescu-Aron et al., 2007, pp.87), the inequality of the access to the Internet, the level of exploitation, the knowledge about the search engines, quality of the technical connections and social assistance, the capability to evaluate the amount of information and the diversity of processing.

The exclusion of a large portion of population from the possibility of accessing electronic commerce services creating the large gaps between social classes, gender, generations/ages, countries and regions, along with the fragmentation and monopolization of Information and Communication Technology markets are unacceptable. Under these circumstances there should be guidance towards the connectivity of public institutions of general interest in the first instance: schools, hospitals, libraries and many others offering the possibility for a large portion of population to benefit of the advantages of new technologies specific to information society, inclusively to the electronic commerce. Electronic commerce imposes the acceptance of a cultural and linguistic diversity considering a new culture of communication, democracy and business imposed by the use of new technologies. Furthermore the development of the field imposes, according to romanian specialists (Trandafir, 2001), an approach towards the keeping of civil rights enforcing the liberty of freedom and communication; it is widely accepted the attention that should be paid for the protection of personal information and intimacy as well for a constructive attitude towards regulations concerning the encryption of information.

An additional reason to consider the Information and Communication Technology industry and particularly the electronic commerce as the key of the durable development it's the fact that this industry is a benchmark industry that has overrun itself. Crisis has rather produced a correction generating the necessity of the productivity increase. Software industry is one of the several economic fields that have recorded growth in 2009, including Romania, and the electronic commerce proved to be a more efficient alternative of the traditional commerce during crisis. Despite the economic crisis the world is facing today, the Internet remains the fastest growing sales channel. E-commerce is proving to be a great opportunity especially for companies that had never before considered the Internet as an alternative. Electronic commerce in

Romania has defied the crisis too, the e-commerce with online payment increasing with 75% at the end of the three quarter of 2009 towards the same period of time in 2008.

But despite the huge opportunities there are a lot of regions all over the world which are not able to dispose of electronic commerce advantages. Poor and undeveloped countries do not benefit by the valences of the electronic commerce as the access to Internet and computers is very difficult. Therefore the capabilities of to diminish the poverty are almost null if this industry has not a significant presence within the economy of the poor countries. It is difficult for a country to exclude itself from the area of poverty by spreading the use of the electronic commerce if traditions, religion or regulations impose from the beginning a separation between genders or diverse social categories, if computers induce a fear sentiment or the Internet is perceived as a tool that permit the access toward a harmful world, therefore a forbidden world.

The optimist vision on the global economy based on knowledge must be temperate by the current realities: half of the world population has never spoken on the phone and more than these have never access the Internet. Electronic commerce implies the existence of developed informational and communicational networks, a certain degree of development for traditional commerce, distribution and education, a certain level of support coming from public authorities by means of legislation and governmental programs. The lack of preoccupation with this field and its opportunities means the insufficiency and absence of adaptation of some of these elements that form the base of the electronic commerce. But in many situations countries are not able to provide these levels of the e-commerce pyramid or the efforts that have to be carry out might be to intense considering the current development stage of the country. The awareness regarding the objectives of the durable development is very important for the management of processes of restructuring the domestic economies, processes with an evident complexity. The problems will be very difficult to be solved in the case of certain countries that have a poor infrastructure and inappropriate structures for durable development. The existence of activities that consume large quantities of natural resources, on one hand, as well as the lack of financing, on other hand, will create additional difficulties in the adaptation process of the economic structures to the new requirements.

Romania: problems and possible solutions to benefit from the opportunities of the electronic commerce related to the durable development

Beginning with the reviewed strategy and the observation that the information society has evaluated from the “pilot phases” to “a large extension” in Europe (due to technological progresses and emergence of new economic players), CE has launched i2010, a strategy aiming to develop the digital economy. i2010 – “an European information society for economic development and employment” is the first initiative stipulated within the reviewed Lisbon Strategy and proposes three priorities: creation of a unique and competitive market for information society, increasing the investment amount in research activities connected to Information and Communication Technology by 80% and promotion of a broad information society. i2010 also promotes, with the tools available to the European Commission, social inclusion through e-Inclusion program. The project focuses on participation of all individuals and communities in all aspects of the information society and aims at reducing gaps in Information and Communication Technologies usage and promoting the use of Information and

Communication Technologies to improve economic performance, employment opportunities, quality of life and social cohesion. While i2010 has delivered significant progress in the area of eInclusion, it is clear that more will need to be done to close digital divides. Gaps continue to exist in Europe in regular use of the Internet and digital skills, both across countries and socio-economic groups. In particular, the most digitally excluded groups at the start of the initiative remain so. Across socioeconomic groups, the old, economically inactive and low educated remain to a large extent digitally excluded. In addition, there remain significant barriers to the use of ICTs by the disabled. The evidence shows that the main reported reasons for households not to have an Internet/broadband connection relates to a perceived lack of need, costs, and lack of skills. These barriers are larger for those on lower incomes. Empirical analysis shows that these factors are to a large extent related to age and education levels. They are also major factors determining the quality of use (the so called Second Digital Divide). Further, while only a small number of respondents report that disability is a reason for not having the Internet at home, this remains an important barrier to Internet access at home for the disabled, as confirmed by the results of a recent European Commission study (EC, 2009).

As a consequence of the accession to the European Union, Romania has to adapt to the principles and regulations regarding the actions carried out for construction of the information society. Ministry of Communications and Information Society proposes a national strategy followed by an action plan to lead soon to the entire public sector orientation to the information society, knowledge-based economy, main policy instrument being e-government. The project "Economy based on Knowledge", targeting period 2006-2010, initiated by the Romanian Government through the Ministry of Communications and Information Society, with the support of the World Bank, aims to contribute to the extension of the access to the modern informational and communicational technologies and it's a proof of government's concerns in this regard. Also, „e-Romania” project initiated by the same ministry will continue strengthening of the national system of public services provided online to citizens, companies or administration.

Furthermore durable development is a well known concept in Romania, our country benefits to an existing Strategy for Durable Development Horizons 2013-2020-2030. This strategy comprises sections regarding the main domains of interest and the role of the Information and Communication Technology sector is mentioned in the sections regarding inter- and transectorial themes like, education and professional development, scientific research, technological development and innovation.

Even if strategic vision exists doesn't mean that there have found practical answers to all questions about the future of electronic commerce. The main problem of Romania regarding the aspect of durable development in the electronic commerce field is the existing digital divide. According to the data acquired from other studies realized in Romania (Niculescu-Aron et al., 2007) the existence of digital division is confirmed in Romania. Important disparities regarding the rigging and use of Internet exist:

- between the urban and rural environment, in the favor of the first;
- between the age groups in the favor of the generations "Before Computers"
- between medium and high educated people, on one hand, and low educated people, one other hand, in the detriment of the last mentioned;
- between high income population and other people that declared a monthly income lower than RON 600 (lower than EURO 150); these are in the worst case

scenario considering both aspects, only one person from 10 succeed in acquiring a computer and approximately one person from 20 has an Internet connection;

- between different socio-professional categories, students and entrepreneurs being the categories that use the most frequent the Internet, contrasting with retire persons, unemployed persons and day laborers. These are disparities generated by other disparities regarding produced by the educational level, disposable income and age.

In this context, it's important to mention our country e-readiness score. E-readiness is the ability of a country to use Information and Communication Technologies to develop economy. E-readiness indices at the macro level are constructed primarily for ranking countries, facilitating comparisons between countries and overtime. They can also be used to track the global digital divide, the gap between countries that have access to Information and Communication Technologies and those that do not. Each year, in cooperation with the IBM Institute for Business Value, the Economist Intelligence Unit (EIU) produces a ranking of e-readiness across countries, based on six pillars of e-readiness: connectivity and technology infrastructure, business environment, social and cultural environment, legal environment, government policy and vision and consumer and business adoption. The number of countries and territories included in the Economist Intelligence Unit e-readiness rankings decreased from 80 in 2008 to 70 in 2009. According to the last report (EIU, 2009), the Denmark now ranks 1st (score 8,87), Sweden 2nd (8,67) and Netherlands 3rd (8,64). Romania is on position 48 in this ranking with a score of 5,07 in 2009, down from 5,46 in 2008. Countries such as Russia and Ukraine recorded a lower score than Romania, and the last places in the ranking is Algeria, Iran, Kazakhstan and Azerbaijan, all with a score lower than 4.

Another barrier on the path of durable development of the Romanian electronic commerce is represented by the fact that the entrepreneurs have not understood that an online business is different from one conducted in the real world. Now we are in a period when a growing number of entrepreneurs having a certain level of courage are venturing in market.ro environment without creating a business plan for a stringent calculation of costs and then discover the “miraculous solution” of the lowest price on the market. This approach is erroneous considering the future evolution of the business, the development of the activity sustained by the reinvested profit and the deficient relations with providers. Many of them started to carefully select the virtual shops to work with in order to obtain an increase of the income and it become more difficult for providers to stand against the pressure put by the online shops which estimated the operational costs and promoted justly prices (not “the lowest prices”) and work with other shops which “cannibalize” the prices under the similar conditions. Their goal is to create a market based on healthy principles and not to increase on the back of the errors occurred in the industry.

Evidently the problems are more inclusive than these and it should be mentioned:

- low percentage of population that own a computer (according to Romanian National Institute of Statistics (NIS) only 35% of the households in Romania had access to computers at home in 2008 and only approximately 7 million Romanians aged between 16 and 74 years have ever used a computer (NIS, 2009));

- low penetration rate of the Internet (according to Romanian National Institute of Statistics (NIS) only 27% of the households in Romania were connected to the Internet in 2008 and 6 million Romanians aged between 16 and 74 years have ever used the Internet (NIS, 2009)). Despite a gradual increase over the past few years, Romania

records the lowest rates of regular and frequent Internet use in the European Union and the most Internet services are used to a significantly lesser degree than on average in the EU (for example, only 4% of Romanians aged between 16 and 74 years ordering goods or services over the Internet for private use, but the same indicator at the EU27 level is 32%);

- broadband penetration is growing slowly and now stands 11,7%, the third lowest in the EU and broadband coverage is still limited, translating into low take-up of broadband by both households and enterprises (EC, 2009).;

- current occurrence of the “cash culture” generating the dilettantism of the Romanian electronic commerce where infrequently the payment is done online (only 21% of the nearly 900 active virtual stores in Romania accept the online payment);

- the educational system is far behind the technologic progress. In the Romanian schools at the informatics classes rudimentary soft wares are still taught. Romanian educational system still tries to produce software engineers on a mass scale but it does not seem to be orientated towards the abilities of the graduates to utilize the computer; pupils are not taught for example to develop their business on the Internet;

- the problems generated by frauds, a factor that induce uncertainty to those that benefit of the Internet access (Romania is ranked at 10 position among the countries with high rate of informatics criminality in 2008);

- the education and mentality of Romanians induce the uncertainty in the electronic commerce due to its vulnerabilities, more evident for Romanians, mainly as a consequence of the lack of tradition. Between the Romanian and West European customers there are psycho-behavioral differences as in Europe the distance commerce has a history (orders via postal services, including catalogues, pyramidal companies - Multi Level Marketing) offering premises for the fundament of the electronic commerce;

- lack of the consistency of some national programs and the existence of a limited number of auto-regulation initiatives, promoting activities conducted by non governmental organizations;

Under these conditions, in addition to the economic measures regarding the proper rigging with computers and Internet connections, social measures that have to be implemented could consider:

- promotion of the electronic commerce concept at the national level in order to create the premises for the public, entrepreneurs and research institutions to understand it, its advantages and opportunities using: enhancement of the advertising campaigns, education and information campaigns about electronic commerce, initiation of meetings between companies activating in electronic commerce field, organizing conferences/national and international symposiums or other similar events to popularize this activity and create possibilities to access it;

- focusing the governmental programs on the growth of social cohesion, decreasing the differences between regions and urban and rural environments in terms of economic development, as well the diminishing of disparities between socio-professional categories;

- adaptation of educational system and research activities to the principles of digital era. This goal should be met for example through: the introduction of a teaching line regarding the electronic commerce at high school and university levels; permanent modification and up gradation of curricula in order to acquire information and examples, models and success practices from real economy; conception of educational

programs regarding incoherent/immoral commercial practices and programs to popularize the legal national framework of the electronic commerce, improvement of digital competences of inhabitants in connection with permanent education and professional development;

- promotion and support of the positive changes in life style and communication. Under the conditions of the European program i2010 Romania has to take in account this fact focusing on fields with technological progresses that are able to improve the quality of lifestyle: ageing of population, cultural diversity, climate changes and intelligent vehicles;

- improvement of public services and quality of life. Online Romanian public services have to become more mature especially in public administration and health system. In the context of the European program for the supporting policy for Information and Communication Technologies wide spreading pilot projects will continue to encourage the improvement of the public services in domains like: electronic identification, secured transmission of documents between institutions, electronic public auctions, identification data of the patients in emergency cases and electronic prescriptions;

In the context of the current economic and financial crisis, it is important for Romania to remember the central role played by the Information and Communication Technologies in driving innovation, productivity and growth and also the fact that today's crisis has helped many businesses expand their horizons and marketing strategies through the Internet and electronic commerce. Information and Communication Technologies is also important for a swift recovery because during an economic crisis the increased pressure on firms to be more efficient can lead to new innovations, including organizational ones, and these innovations will be crucial for future growth once the crisis has faded. Direct support to facilitate the diffusion of Information and Communication Technologies contributes directly to employment and growth in the short/medium term, according to European Commission (EC) studies, primarily because segments such as software appear more robust than others, providing important sources of jobs, and secondly because the use of Information and Communication Technologies by jobseekers can make job matching more efficient and facilitate a swifter return to work (EC, 2009).

Companies and governments should not be cutting back on Information and Communication Technologies activities even the sector is facing similar difficulties to other industries, as consumer and business confidence drops and investments are postponed. Some restructuring is taking place, but in Europe growth has not yet collapsed as in 2001. The European Commission (EC) studies indicates that investment in software, IT services and communications-related services will continue to grow (EC, 2009), and therefore this sector it's crucial for the European economy and it should not be allowed to fail.

Conclusions

The continued rapid development of Information and Communication Technologies enables us to acquire and manipulate the most important resource of the economy, the information, in ways not possible in the past. These changes, together with various policy initiatives at different levels, means that nations must review the vision of economic development and the new generation of organizations must get into a new world, where communications and information technology accelerate the

expansion of the dematerialized economy, changing the components of the competitiveness and generating new sources of economic growth.

The development of the information society must sustain a “social sustainability”, using adequate policy to balance the occasionally conflicting aspects comprised within the triangle of the economic, social and ecologic objectives. Today we should be capable to understand that the modern development is durable if the interaction between the above mentioned components is focused on human being and its needs.

The gains generated by the e-commerce on the economy ensemble are so promising so that practically any attempt to ignore this new channel of business life development would be against productiveness and the potential that e-commerce has in productivity and competitiveness terms is so significant that any delay in ensuring the premises necessary to its spreading on a larger scale attracts the risk of the deepening of the digital divide. Development, including that of the electronic commerce can not be viable if it is based on contextual success factor; it should be sustained by the solidity of some fundamental pillars which are able to provide a long term development, as education, research activity, Information and Communication Technologies sector etc.

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