

DIGITAL ECONOMY

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Abstract

Digital economy refers to the nowadays changes of the economic activity due to the usage of digital technologies which facilitate the access, the processing and the stock of information in different companies.

Within the new economy a new model of business is created – the electronic business – characterized by its forms of e-business, e-banking, e-payment type, facilitated by means of the intra and inter-net which change their efficiency by reducing the costs based on a business to business type (B2B), a business to customer type (B2C), customer to customer type (C2C) and business to administration type (B2A) relationships.

1. INTRODUCTION

The digital economy or the new economy may be considered as the result of the interaction of the following notions: electronics, Internet, personal computers and telecommunication. This type of economy refers to the nowadays changes of the economic activity due to the usage of digital technologies which facilitate the access, the processing and the stock of information in different companies.

The new economy characterizes itself by the inclusion intensification of the knowledge in the new products and services, the growth of the innovation importance and that of learning, of the durable development, respectively.

The exponential growth of the used information changes the mode of usage of the data resulting in the restructuring of those industrial units, the appearance of new opportunities to create values regarding the exploitation of the used information.

Within the new economy a new model of business is created – the electronic business – characterized by its forms of e-business, e-banking, e-payment type, facilitated by means of the intra and inter-net which change their efficiency by reducing the costs based on a business to business type (B2B), a business to customer type (B2C), customer to customer type (C2C) and business to administration type (B2A) relationships.

A first aspect of the digital economy refers to the demand and needs of the consumers by mostly involving them in the conceiving, the making and the usage of the goods and services starting with their research and development stage. Another aspect of this economy is the competition and cooperation, two essential elements and the demand and the offer being also taken into consideration.

The digital economy requires a great consumption of high-qualified work, new jobs, new business opportunities and creativity because of the existence of some flexible and inter-connective standards which encourage the need of the consumers' integration and individualization.

Due to factors as: the diminishing of resources, the growth of work productivity, the speed of producing and change of economical processes and phenomena, the growth of the added value, the digital economy becomes superior to the classical general economy.

The conviction, accessibility, availability, existence and suitability represent the general principles of development of the digital economy and are the bases of its micro and macro economical effects.

The technology of information and communications (TIC) which lead to economic growth and the creation of new jobs, the restructuring of companies and businesses in

general, have a series of macroeconomic implications that are useful when it comes to taking decisions and they refer among other to:

- the encouraging of IMMs and the creation of a practical entrepreneurial environment;
- the opening of financial markets for the purpose of the innovation financing;
- the introduction by the companies of the e-engineering phenomenon for a better use of the TIC, aiming at the reduction of the prices and the growth of efficiency;
- the growth of the investment expenses for the TIC;
- the adjustment of the monetary politics (especially the interest increase).

The used digital information represents “the base rock” for the digital economy, by giving the communication structure in order to control the production process and that of the distribution of goods.

The microeconomic effects which help at the development of digital economy refer to:

- the making of a legislation specific for the use of TIC and the Internet network;
- the unconditioned access to the communicational networks;
- the liberalization of the suppliers who keep the high fabrication costs;
- the making of an infrastructure according to international standards;
- the free access to information;
- the law of private property.
- a representative field of the digital economy is the digital trade.

2. THE ELECTRONIC TRADE

The electronic trade represents the way of trading which uses the calculation technique and different means of telecommunication in the making of the business in order to increase the speed of exchange of the information, of the area of covering the economic activity, respectively.

In the EOCED (the Economic Organization for Cooperation and Development) conception, the electronic trade represents the progress of a business by means of the Internet, the sale of goods and services being off and on-line.

The basic idea of the electronic trade is the making of the change of ideas, goods and knowledge besides the sale/purchasing of goods operation.

The electronic business of the electronic trade type has two important aspects:

- the economic aspect which is specific to any commercial activity;
- the informatics aspect which defines only a part of the technology of the business making.

The electronic trade depends on a series of infrastructures of the global economy, including the infrastructure of the telecommunication networks. Thus, the new accomplishments linked by the Internet network as: the transmitting rate of the Gbps data, the evolved multimedia interfaces, the growth of accessibility to information, the use of different security means of the data that make the Internet more and more attractive for this kind of trade.

But the introduction of the Internet use in a business leads to some changes in the structuring, making and following manner. The use of multimedia techniques changes the way of presenting the processed information, this one having a similar role as its content.

The Internet network allows the information exchange in both ways without any time or space limits, introducing a new modality of communication between business partners, which represent an alternative for the traditional forms of information exchange.

Thus, the Internet represents an essential element in the infrastructure of the electronic trade, giving a support for the virtual channel of distribution whose efficiency is determined mainly by the characteristics of accessibility specific to the working web environment. By using the web technologies, a connection between the producer and the distributor is formed by simplifying the orders, offers or the presentation of products.

Even if they use different forms of the information and communication technologies, the electronic trade covers another limited segment of the market, generally addressing to an active and informed segment of customers which wants to get the best services by choosing from the offers that are accessible at a certain moment.

2.1. GLOBAL AND LOCAL ASPECTS OF THE ELECTRONIC TRADE

The aspect of global and local electronic trade generally refers to the exchange of products, services by means of the Internet network, by using different web technologies between the differently situated in the world partners.

Although this kind of trade is at its beginnings in many countries, the global aspect developed due to the fast growth in the world of the electronic trade and especially due to the appearance of the electronic market of the business to business type (B2B). This electronic market was created by the international alliances of the buyers within the mainframe of the different industrial sectors as: the wholesale trade, the car industry, the chemical one, the agricultural one, but it also appeared within the services mainframe.

The global-local problem, based on the current realizations of the businesses became important in a series of aspects as:

- the marketing strategies which tend to become global;
- the types of global markets;
- the global business patterns in the electronic trade;
- the electronic trade and the global commercial fluxes;
- the barriers in front of the electronic trade;
- the role of the governments when supporting the development and the regulations of the electronic trade;
- the advantage of the countries which faster implement this type of business.

Both the local and the global electronic trade encounter a series of obstacles depending on the different influencing factors in the economic, social, technological fields:

- the inadequate global deliverance and that of the system of processing;
- the difference of culture, language, commercial practice;
- the fragmentation of the industrial sector;
- the specific barriers to the IMM's;
- inadequate marketing strategies.

The global electronic markets are divide into four categories:

- the intrinsic global electronic markets which deal with the global products, consumers and suppliers from different regions of the world, and they are characterized by the business to business type (B2B). Those markets which offer a uniform vision on the offered products are intrinsically global, and the operation within these markets starts from the deliverance time and costs that depend generally on the transport, getting up to different regulations which refer to export and import. For this type of market, the challenge consists in facing the demand and the offer by avoiding its fragmentation in more local markets;
- the globally organized local markets are limited from the geographical point of view, but the approaching and processing way of the different transactions in a certain

region can be used in other regions, too, by creating a certain connection between the two regions;

- the local markets built on a global infrastructure represent an electronic market which can work locally and globally. The presenting and trading way of these types of markets can be local, but the accessibility modalities, the payment, the security and the deliverance of the products can be global. Thus the electronic trade can be mentioned by means of mobile phoning or m-commerce. Even if this type of trading is dependent on its location, they need a global infrastructure of mobile networking. For the way of accessing, the infrastructure has a global roaming service that wishes to be introduced on a larger scale in the future.
- the export associations represent a large electronic market but they are characterized by a local element.

2.2. THE SECURITY OF THE ELECTRONIC TRADE

The security of the data and information used within the financial transactions is very important in any financial system, no matter if it is used within the classic transactions or the electronic ones. To ensure the necessary security, different encrypting techniques are used in order to give three types of services: the authentication and authorization, the non-repudiation, the confidentiality and the integrity of the data.

By authentication we understand the fact that the parts which communicate among themselves make sure that they communicate exactly with the one who wishes to make different transactions. The authentication is made by digital signatures. The non-repudiation ensures that neither of the parts can deny their participation in a made transaction.

Confidentiality refers to the fact that all communications between the parts are strictly restrained to the parts which participate to the making of the transaction. This kind of security is made by encrypting. The integrity of the data refers to the fact that the data which are used are not modified during the transferring process or during the moment of their stocking on an external memory support.

3. CONCLUSION

The digital economy and the electronic trade have the latest methodological, technical and practical elements as : new concepts of marketing politics development of the trade company, the newest technologies in the calculation and telecommunication technique, the newest payment instruments, the newest instruments and methods of design of the informatics applications based on the Internet use and that of the web service.

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