

## E-COMMERCE AND THE RELATED COST

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**Abstract:** The progress of the informatics and communication technology, especially the development of the Internet infrastructure, make possible the complete electronic and even partially automatized support of the business field. If an electronic market is supplementary used as a meeting place for the offerors and customers, it is an indirect form of e-commerce. In the case of the totally electronic commerce (direct electronic commerce), the goods to be sold are exposed to the public, are digitalised. These goods can be directly distributed via the Internet. The role of the e-commerce is that of a mediator among the producers, distribution networks, other facilitators and the consumers. The e-commerce can contribute to the diminishing of a certain offeror's costs by a series of mechanisms, thus it can increase the capacity of competition of a firm. Using the Internet there can be done comparisons and price analyses, while the costs for the changing of an offeror who has more attractive prices are more diminished. As it can be noticed according to the eProcurement development, the increases of the efficiency can be obtained by diminishing the acquisition costs. Important costs are to be seen in the development of the sale process, as well as in the marketing sector. The Internet technology offers various possibilities of saving money. Advertising is easy to be accessed today, so that the clients may benefit of information immediately, while the offeror saves money with multiplication and dispatch.

### JEL Classification: M16

#### 1. E-commerce and its Typology

The rapid and powerful growth of the Internet has gradually drawn attention on the electronic markets and, subsequently upon the electronic commerce. In the 1970's it has been felt the development of the electronic markets once people were able to book tickets for their flights, when we discuss about the flight companies, or in the cases of renting a car or booking at the hotels. The progress of the informatics and communication technology and especially the development of the infrastructure of the Internet make possible a complete, profound and even partially automatized support of the business domain.

The comprehensive electronic reproduction and the facilitation of the economic activity in the factories can be considered as „e-business”. No unitary definition has been given to this notion up to now. The best distinction between e-commerce and e-supply is done with the help of the electronic chain of the added value. In order to notice the process of creating the added value into a certain factory, it can be done a simplified division of the chain of creating the added value in supplying goods, production and sale. In this context of the electronic representation of the economic activities, e-supply is understood as the electronic development of the supplying process, the production process is virtualised, and the e-commerce is seen as an electronic display of the goods and services. All these actions can be understood as e-business. E-commerce End-to-End is designated the representation of the electronic activity through all its organizations which are part of the chain of creating the added value until it reaches the final consumers.

The singular interferences of the electronic chain of the added value, namely the transactions which take place between two links, can be spotted out- considering the offeror's name, as well as that of the consumer- into three groups:

- consumers
- factory/business
- public administration

By combining the three categories which are representative for each of the two main actors (consumer and offeror), we may have the following grid with 9 branches where each branch stands for a possible domain of transaction between the two „actors” previously mentioned.

Ofertant		Consumer		
		Consumer	Business	Public Administration
	Consumer	C-C	C-B	C-AP
		Ex. Auction E-bay	Ex. Job Exchange	Declaration and Stamp duty
		B-C	B-B	B-AP
	Business	Clients/Orders to the Firms	E-supply from suppliers	Collecting IVA from the firms
		AP-C	AP-B	AP-AP
	Public Administration	Giving support	Supplies for public institutions	Transactions among public institutions.

Considering the number of the transactions the B-C domain (business-consumer) is on the second position, after the B-B domain (business-business). The stages of the Internet development can be associated with this classification.

The first stage of using the Internet starting with 1994 triggers the multimedia, worldwide communication and subsequently the access to the global information for the audience. In the second stage, starting with 1996, the Internet- having an infrastructure role IT- was introduced in factories and understood as a new way of access to the clients under its form of e-commerce (business-business and business-consumer). In this stage, the newly comers in the domain business-consumer were those who, by the help of some new business patterns, temporarily obtained good quotation on the stock exchange/money market. In the third stage, the old fashioned factories, especially in the business-business domain, intend to re-defined their economic and logistic activity, as well as their relationships with the clients, by using the potential of the Internet.

## 2. The Classification of the E-Commerce

By the systematization of the singular forms of the e-commerce results a classification which shows the transition from the traditional commerce (conventional commerce) to the modern one, the e-commerce.

As long as for the classic commerce there is no electronical support, in the case of the commerce via the Internet there is already one at the level of the transactional mechanism and of the communication infrastructure level. If an e-market is suplimentary used as the meeting place of the offerors with the clients it represents an indirect form of e-commerce. In the case of the integral electronic commerce (direct electronic commerce), the goods to be sold are digital goods. These can be directly distributed via the Internet; subsequently it is not under discussion any physical form of distribution, so that all transactional stages are achieved with the help of the electronical means. This is why the degree of the electronic support depends on the type of the commodity to be sold. The transactional goods are work being electronically sold as there are more transactional stages which can be supported by informatics and communication systems.

The Internet as technological basis and infrastructure for commerce gives not only the possibility of temporal and spatial separation, but it offers the opportunity of separating the function of the commerce.

## 3. Decentralization of the Commercial Chains and the Apparition of the New Types of Products

The transactional domains rendered in the previous grid can be seen as part of the chain for creating the added value, besides the business-business, business-consumer and business-administration domains which represent the endings of this chain. In this context the role of commerce is that of a mediator among the producers, distribution networks, other facilitators, as well as consumers. In the same context the commerce has the functions of selecting the type of the products (the forming of the commercial types), finding, evaluating and distributing the information, as well as those of the physical distribution, financial transactions and the corresponding services. All these functions can be expressed under the form of creating added value chain.

The resulting changes for the offerors and the consumers due to the digitalised markets send their effects upon the commerce as mediator. The function of the commerce can be decentralized and taken by the new facilitators, producers and even by the consumers. The taking of these functions by new facilitators inside of the creating added value chain and the omission of some intermediary links, for instance the taking of the functions by an offeror, are defined by the non-intermediating notion.

Taking into account the Internet diverse offer, the client can select the types of goods with minimal costs. The added value of the type of structure selected with the help of the commerce consists of the possibility of covering at the same time a series of heterogeneous needs directed to the customers' concrete needs. Considering the fact that via the Internet, Global Sourcing becomes more and more a reality, it results the difficulty of selecting among a great number of products which are not easily overviewed, knowing that they are scattered at the global level. Very often by this it is understood the supplying with the products from the world market. Being understood as a strategy of supplying it means the efficient use of the whole world resources. Therefore the supplying from the international markets represents a strategic element which generates competitive advantages. Actually Global Sourcing is juxtaposed to Multiple Sourcing. The buyer has for each product a corresponding offeror on the world market. It is a common practice that in the strategies Global Sourcing to develop relationships with fewer offerors, but more important ones.

At the opposite side it is the Local Sourcing notion: using the sources from the geographical area where the factory is situated. Sometimes it is used with the same meaning the notion of Domestic Sourcing, which means the supplying with the domestic products. More than this in the specific literature it is used an intermediary level between Global and Local Sourcing called Euro Sourcing, which reflects the searching of the best offerors from the Euro area. This is a starting point for the new facilitators who connect more offerors with a special market or with a portal. In this case the most important thing is the quality of the preselected sortiment and not the physical presence of the products. The collecting and interpreting of the clients' data and needs are in this case vital for respecting the specific sortimental structure of a certain clients. The more and more direct link between the offeror and the consumer leads to a decrease of the costs. The searching engines become more and more important for a rapid connection between the two parts previously mentioned. This makes the informative function of commerce be put under question, and by this its scope as a facilitator. To have such a direct contact it is necessary that on the producer's page should be presented its competences, which can be a starting point on short up to medium time.

Decentralization of the physical distribution as well as of the financial transactions, appeared even from the traditional form of the commerce.

The physical distribution was taken by the suppliers of the logistic services, and the financial transactions by the banks. The auxiliary services such as the exchange of goods, the guarantee services a.s.o. can be sent back to the producer.

In the case of the specialization on functions of the commerce by the facilitators a question arises: which are the tasks to assume on their own and which ones should be transferred to those who are specialists?

It is also important the way of the most efficient organization for the on-line coordination of the functions that are necessary to the accomplishing of the transactions. The Internet potential can be exploited here for constructing the virtual networks in the factories for the centralization of the specific services.

The offer of new supplementary services, such as the customs office services, will get a more and more important role in the international competitive environment. Especially in the area of the searching engine experts, the portal areas and Trust-Center (Schneider/Gerbert, 1999), which compared to the traditional commerce represents new facilitators, new and increased profits are expected.

#### 4. E-Commerce and the Corresponding Prices

E-commerce can contribute to the diminishing of the prices of an offeror by a series of particular mechanisms, thus increasing the competitive capacity of a firm. To present the relevant connections established in this context it can be started from the taking over of the substitutive use of the e-commerce, which means that its use takes place without changes in the strategic domain, namely that of the type of product or of the target group. The substitutive use is dominant in the firms coming from the traditional economy and which start to become confident in the possibilities of the Internet for developing their own business.

##### 4a. The Costs of the Acquisitions

As private consumers the firms can benefit of lower prices due to the Internet information, to make the acquisition both of the basic materials for the production and of the auxiliary materials at the lower, economic prices.

Using the Internet there can be done comparisons and price analyses and the expenses for changing an offeror are significantly reduced.

The scheme no. 4 reflects the evaluations of the company Goldman Sachs, concerning the reduction of the costs due to the electronic acquisition of the transactions Business-to-Business, acquisition according to the branch.

Stocking costs are in a broader meaning acquisition costs. It is generally appreciated that 25% from the profit obtained after selling a product is represented by the cost with stocking. In other categories of factories an important part of the capital is in connection with the stocking of the intermediary or final products. The economic damage is greater if the moral damage of the product is more rapid.

The Domain	The Potential of Saving Evaluated in % from the Total Costs
Electronic	29-39%
Forest products	15-25%
Car Building	22%
Transportations of Goods	15-20%
Computers	11-20%
Agro chemistry/ Pharmaceutics	12-19%
Media&Publicity	10-15%
Petrochemistry	5-15%
Communication	5-15%
Plane Building	11%
Steel	11%
Technical Services	10%
Paper	10%
Chemistry	10%
Health	5%
Food	3-5%
Mine exploitation	2%

Fig. 4. The Potential of Saving Achieved by E-commerce in the acquisition domain.<sup>1</sup>

<sup>1</sup> Gareis, K., W., Deutsch, M., Die E-Commerce Studie. Richtungweisende Marktdaten, Praxiserfahrungen, Leitlinien für die strategische Umsetzung, Vieweg Verlag, Bonn, 2000, p. 32.

A reduction of the stocking costs is possible on condition that along the chain of creating value it is done a rapid exchange of relevant information's for the sales.

An example: if a certain model of a product is in great demand on the market due to an event, this piece of information should be popularized among all the participants of the chain which creates value, so that the production to be adapted in a corresponding way. If this adaptation succeeds in due time without any delay, the stocking is no necessary.

By the contrary, when the partners of the creating value chain are not able to react in a short period of time to an exchange of the offer, the firm is obliged to stock its products for a longer period of time.

From the supplier's point of view good information about asking the product directly from the buyer is possible, thus helping at the optimization of the selling plan, which helps of the diminishing of the stocking time. The shorter the stocking time is, the lower the costs.

Many times for establishing the effective costs due to the acquisition of the product it is applied the principle TCO ( Total Cost of Ownership) which implies the addition to the acquisition price of the following elements: the costs with the rent, the stocking, the insurance and an opportunity cost generated by the investment of the capital into another activity which could have generated a profit. The TCO concept is intensely used in connection with the IT systems. When a piece of equipment, a system or some tools are bought besides the acquisition, price the additional factors should be taken into consideration which add supplementary costs after the acquisition. The effectiveness of the acquisition is calculating according to TCO, thus there were established the delivery systems Just-in-Time, where the stocking was minimalised. In extreme situations, as it was a stroke at the suppliers, some stocks would have been good.

#### 4b. The Sale Costs

The production costs represents only a part of the total costs of the offered product. Major costs are noticed in the process of sales. In the latest years due to the help of the Business Reengineering process ,internal business processes have been analyzed and computer assisted in many firms. The Internet offers the chance that both the clients and the suppliers can enter this program of optimization thus obtaining significant improvements of the efficiency.

The term of reengineering or business process reengineering can be defined as the radical re-projection of the organizational processes in order to obtain major improvements such as: time improvement, the diminishing of the costs, the increase of the quality.

Michael Hammer and James Champy showed- in their fundamental paper „Reengineering the Corporation: A Manifesto for Business Revolution” (Collins Business Essentials)- into an organization too much time is spent with the spreading of some responsibilities or some tasks from one department to another. One of the measures of increasing the efficiency would be that of establishing a single team to be responsible for all the tasks from the same process , no matter whether for this it could be necessary the reprojction of the whole organization and business system. Such a team can lead itself, being made up of people with diverse specializations, functions and even from various hierarchical levels. In many cases the repartisation of the transactional costs upon the client-according to the bankomate system, namely self-serving. The use of the electronical appliances where the data can be checked in real time, leads to the decreasing of the costs generated by the their wrong completion.

The manual interpretation of the data is useless because all the rules and specifications are integrated in the on-line order of the goods, which means that for each wrong fill in the data, the user will automatically be informed with the help of the browser.

For the products which are more pretentious and involve supplementary explanations, the client can get informed before talking with the contact person on condition that the information exists on a web page. This page should be at the clients' disposal with technical and economic information in order to satisfy even the most exigent virtual clients. The discussions about sales and the hot-line questions, which generate important costs, can be short or they cannot even exist. The potential of saving is anyway significant.

In contrast with en-detail commerce, in e-commerce goods should be delivered to the client at his firm or at home. This is why a very performant logistic system is required because when the clients do not receive the products rapidly and safely, the relationship seller-buyer are compromised.

Problems appear when it is about products of daily consume, for instance food, where the delivery time is maximum a day; the same problems are to be met in the case of external commerce. It is obviously easier to announce the offer on an international market than to supply it effectively. It is no doubt that the offerors who have made commerce by mail are supported by know-how technique.

This can be noticed by a continuous migration of those who have practiced traditional mail towards the e-commerce.

The problem is different while speaking about strictly informative products for the offerors. The products should be posted on a server attached to the Internet and from that place they can be accessed by the clients. For the foreign trade there are no importation taxes and customs taxes for the products sent by e-mail, while for those which are normally sent the taxes do exist. That is why the same product can be offered at a lower price, when, instead of CD or another device which has information, it can be unloaded on-line.

In order to analyze the question: *Under which conditions (in which domains) is it possible to eliminate the intermediary and en detail commerce?* – it should be analyzed the role of the traditional facilitators in economy.

*„For the great majority of the products the facilitators do not represent only simple obstacles in the way of the product towards the final client, but they also contribute to the increasing of the prices. The facilitators add the value which the consumers need and the producers are not able to offer. The solution to the problems with the facilitators and the distribution channels does not consist in their complete elimination in the favor of the on-line distribution. It is likely that the producers and the facilitators may cope in order to create a distribution channel which can maximize the value offered to the client once the costs will decrease consistently. This is the area where the Internet can really prove to be efficient in the business development.“*

The taxes of participation in an e-market represent another source of income as the advertisement or the monetary transactions. The income from the advertisements (in the U.S.A) is calculated when the infomediators are payed by the advertisement distributors according to the numbers of visitors of the page, while the income from transactions represents a percentage from the sales.

But it is not possible to renounce to know the clients or to give up the existing agreements. The facilitators' diasappearance is a long process especially when the classical facilitators know the client better than the producer and they can use the *know-how* technique of getting information, being able to use them accordingly. The elimination of the facilitators at the direct delivery to the clients gives the offeror considerable expences. That is why the facilitators will continue to play an important role, on condition that they bring value as it has been previously presented.

#### 4c. The Marketing Costs

Due to its worldwide development and because of its great number of private users and not only, the Internet gives new opportunities to the Internet. Up to the present it was very expensive to address the clients from abroad, but now the offeror's geographical position is less important in the e-commerce with material goods, and without importance in that with informative products.

If theoretically it is possible to gain clients from all over the world for any offer, in practice it is shown that only for a minimal offer of regional products, which are internationally recognized, this thing is possible.

Besides the expenses for the advertisements there are costs for „measures for creating confidence“, which means security measures of all types, which limits the new clients' fears of possible risks in the e-commerce.

But the technology of the Internet offers various saving possibilities in the marketing domain. Nowadays the advertising prospects can be obtained by using a simple command „Downloaded“.

## **REFERENCES:**

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