



E-MARKETING AND E-LOGISTICS - DETERMINING ASPECTS IN DIGITAL ECONOMY

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Abstract: *Within the extremely competitive business environment we are witnessing nowadays, companies and firms are perpetually looking for ways of improving profitability while holding on to their position on the market; therefore, the more intense the competition is, the more difficult attaining success will become. In order to accomplish these objectives, companies were helped by computers through innovative software of computer-assisted design and production, as well as by the technologies pertaining to the internet. Computers play an important role in each aspect involved in a company's survival, from designing and manufacturing the product, creating the client data base, controlling the inventory, marketing, advertising and sales, and actually covering the company's overall operations. The present paper discusses a few ideas regarding the use of computers and internet in marketing and logistics as well as two scanning methods.*

Keywords: *marketing, computer-assisted design/production, internet, cyber-marketing, marketing applications*

Marketing is the process through which goods are sold and bought. The purpose of marketing is to win and keep customers by satisfying their needs. Modern marketing has evolved, becoming a complex and diverse field. It includes a large range of special functions such as advertising, e-commerce, public relations, retail sales and merchandising, sales, market research and establishing the prices of goods. Business, especially the marketing side of business is based a lot on using computers. Computers play an essential part in controlling the inventory, processing and dealing with orders, communicating among satellite companies within an organization, designing and producing goods, manufacturing, performing market analysis, advertising, editing the company bulletin and, in some cases, ensuring full control upon the company's operations.

Nowadays, within the current extremely competitive business environment, companies are looking for ways of improving profitability and maintaining their position on the market. As competition becomes more and more intense, attaining success becomes more and more difficult. There are two elements that have started to help companies in their attempt to reach these objectives. These are the CAD and CAM innovative software

products and, last but certainly not least, World Wide Web.

Computer-aided design and computer-aided manufacturing (CAD/CAM) refers to computer software that integrates two technologies, leading up to what has been called the new industrial revolution. In CAD, engineers and designers use specialized software in order to create models representing the characteristic features of objects; these models are computer analyzed and re-designed, as needed. This allows companies that need certain flexibility to study different and out of the ordinary models without the large costs implied by manufacturing and testing real models, thus saving millions of dollars. In CAM designers and engineers use computers for planning manufacturing processes, testing final products, controlling manufacturing operations and managing the entire plant. CAM is connected to CAD through a data base which is shared by design engineers and production engineers.

The most important CAD/CAM applications are for mechanic design and electronic design. Computer-aided mechanic design is usually done with automatic editing programs using interactive graphs. Data is introduced in the computer in order to create basic elements such as circles, lines, and spots. Elements may be rotated, mirrored, moved, and scaled, and users can increase details. Computerized editing is faster and more precise than

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manual manufacturing, thus facilitating changes.

Computer manufacturing allows the designer to use a direct data model stocked in the computer memory. These software programs help designers take into consideration both the function and production consequences starting even from the initial stages, when models are easily modifiable.

Several production firms integrate CAD/CAM with other production-related aspects, including those of checking on the inventory, programming, and marketing. This idea, known as computer integrated manufacturing (CIM) speeds up order processing, helps managing materials efficiently and increases cost savings.

Beside designing and manufacturing a product, a company has to have the possibility of advertising it on the market and thus sell it. Actually, we may say that doing business consists mainly in establishing connections with other people. It is very important to be able to give your card to thousands, maybe even millions of potential clients and partners and this can be done virtually, 24/7, in a simple and inexpensive manner on World Wide Web. Firms stay in touch with their clients through different types of media. These media usually use passive communication – from one to many – through which a firm gets to several current and potential clients through marketing efforts allowing limited feedback from the client. For several years now, there has been a revolution in the field, which is going to change dramatically traditional advertising and mass media communication. This revolution is on the Internet, a massive global network of interconnected computers which have the potential to radically change the way in which firms do business with their clients. World Wide Web is a huge information-providing service base based on hypertext. It grants access to complex multimedia documents and data bases. The Web is one of the most efficient means used for providing information, due to the visual impact and its advanced functions. It may be used as a complete environment presenting information on the company or information about all its products and services.

The recent growth of World Wide Web has opened new markets and pushed sales limits to a world-wide audience. In marketing, World Wide Web can be used for creating a database of clients, products, and market analyses; for getting rapid access to information, for disseminating information on a large scale, fast communication,

cost-effective transfer of documents, counseling and training, recruiting new employees, horizontal communication among employees and new business opportunities. The usefulness of Internet or World Wide Web depends directly on the products or services of different businesses. There are different benefits according to the type of activity and whether you are a provider, a dealer, or a retailer. We are going to give a closer look to these aspects.

It is not always easy to find new clients and new client databases. This process involves performing a careful market analysis, product marketing and basic testing made by the clients. Internet is an extremely convenient database including millions of people belonging to every social category. You can easily find new buyers and customers in this massive group, on condition that your presence on the internet is known. If you can keep your clients informed about all the reasons why they should be doing business with you, your business will definitely grow. Increasing the availability of information about the business is one of the most important ways of serving clients. Before people become clients they need to find out about your company and what it can do for them. This can be done easily and not at all costly on the World Wide Web¹.

Many users also perform product analyses and comparisons and report their findings through the World Wide Web. It may happen quite frequently that you find other people who may be familiar with the products you are currently testing. A company may obtain updated and useful reports on the functionality of these products before spending a large sum of money. At the same time, the large number of Internet users is a main pool for making surveys in order to perform a market analysis for a new product. These studies may reach millions of people and potential clients with very little effort from the people who make them. Once a product is already out on the market, you can examine the level of satisfaction that users have regarding the respective product. Getting the client feedback may lead to creating new and improved products. Feedback will inform you on the clients' opinions on the product faster, more easily and in a much less expensive way. At the cost of one or two internet

¹ Gheorghe Minculete, *Elemente de marketing în economia digitală*, Bucharest, "Carol I" National Defence University Publishing House, 2012, pp.17-21.



pages, you may have access to a true crystal ball in which you could see the product or service's place on the market.

Accessing information on the Internet is usually much faster than sending it by fax, post or courier services. You can access information and data from all around the world and make interactive distance connections with IT systems anywhere in the world.

E-mail has also proved to be an efficient solution to problems generated by phone communication. Contacting people via e-mail has become a unique communication method that has the speed of phone conversation and also offers the advantages of using the postal service. E-mail messages can be sent from anywhere there is internet access, thus allowing business people or employees who are travelling to keep up to date with the latest activities from the office. Another benefit of World Wide Web is the large range of information circulated. You can post documents on the internet and make them instantly available to millions of users in the whole world. Hypertext documents offer an efficient technique through which information is presented to subscribers, clients, or the public at large. Creating World Wide Web documents and registering your site with other, bigger, Web sites improve the availability of documents for a larger client database and it is much cheaper than it would be if you had to cover several newspapers or TV media. You may not be able to use the phone and other communications means in all the potential international markets. However, with the World Wide Web you can open a dialogue with international markets as easily as with the company from across the street. The Web is also much more cost-effective than conventional advertising. Online transfer of documents via the Internet requires a minimal amount of time, saves a lot of money as compared to postal or courier services which may also suffer delays in delivery, loses or damages. In case the on-line transfer of a document fails, you may try again and the cost of the transfer is the same. Actual or potential clients are not lost because of delays or lack of documents².

Beyond the product and market analysis there is a large number of experts on the Internet who make their presence known and are easy to access.

² Marinela Mircea, *Managementul afacerilor în economia digitală*, Bucharest, Economic Publishing House, 2009, p. 27.

It is quite often that you may get free counseling and advice for the problems you may have from the same people whom otherwise you would need to pay for their consulting services. Both researchers and business people have certified the fact that a significant amount of their communication on the Internet is with other people in their research domain or line of activity. Communicating with colleagues permits the exchange of ideas, problems and solutions. It is quite often that people find out that other people have already created solutions in their domain for problems similar to theirs. They are capable of obtaining counseling regarding their own particular situations and make up a solution based on this common knowledge.

A lot of business people and companies are constantly looking for innovative ideas and association in viable businesses. Internet users keep coming with such new ideas, due to the research possibilities available on the Internet and, also, due to the atmosphere of cooperation characterizing the Internet. Besides, the internet has many job sites and on-line CVs for potential employers. New CVs are constantly posted on the Web in order to inform companies on the availability of new competences.

The speedy pace of development of hardware and software components brings with it the development of technologies in the internet area. Thus, "Cyber-marketing", which is used as such in Romanian, is a neologism designating the activities to be found at the junction of three domains: marketing, economy, and technology. Cyber-marketing gravitates around the client, having the possibility of communicating with him/her at any time and in a very comfortable manner. According to dictionary definitions, anything beginning with "cyber" is connected to the "science of controlling complex systems". In the current context, "cyber" has acquired a different significance referring to the non-physical, non-material, virtual place where computers and communications "come together" and communicate. It is the digital environment where information is presented through a line of binary symbols, 0 and 1, called bits or digits. Thus, we could say that cyber-marketing refers to the process of creating and maintaining the relationship with the client through online activities of facilitating the exchange of ideas, products and services with the purpose of satisfying the needs of both parts. Specialists consider that "cyber-marketing" should



be regarded as an online information policy or as online marketing online focused on the consumer. Thus, we may say that "cyber-marketing" targets the consumer.

The most important paradigm in the process of interfacing the components of the two systems – marketing and logistics – is the concept of *cyber-marketing*. The changes in modern society compel specialists to act accordingly, continuously, with respect to conceptualizing the developing framework of theories and policies regarding different aspects of the respective society. Within such a framework we consider it necessary to take into consideration both changes in the marketing domain and those in the logistic domain, conceived so as to be continuously improved due to the significant transformations in the systems of legal, social, even political communication. Thus, after the concept of general marketing, which became traditional according to some specialists, began to be promoted in close connection to other concepts, such as the logistic one, there were introduced ideas or visions bringing important improvements both of the manner of approaching issues and of the practices and instruments of promoting the respective ideas. Specialists needed therefore to conceptualize a new notion and put together the way of promoting it in market relations of cyber-marketing³.

Cyber-marketing or *on-line* marketing is a system of performing goods or services transactions towards the target audience who uses the Internet, by making use of *on-line* instruments and services according to the business strategy and marketing program of the company. For the firms within the distribution circuit, the respective concept addresses using the power of *on-line* networks, communications through IT and interactive digital means in order to reach the objectives of the respective business, offering benefits directly connected to the demands imposed by a functional economy, eliminating the barriers of penetrating the market, offering equal opportunities to all enterprises no matter the nature and dimensions of own business or their place in the marketing channel⁴.

Regarding the specific elements of cyber-marketing, we have to emphasize the fact that the electronic environment, as a new type of environment, differs from traditional environments, having certain peculiarities and specific

requirements, which makes marketing activity rules be considerably modified, in order to draw the targeted audience.

The most significant aspect to be considered is that, in the virtual environment, enterprises, no matter the kind, do not act randomly; they have to take into account a certain economy of the Internet, comprising mainly four components:

- The infrastructure, made up of internet providers, producers of computers and network equipment, optical fibers and security system;
- the applications, which refer to the programs used for developing sites, data bases used on the *web* and *on-line* training;
- the intermediate component, made up of economic agencies and other institutions on the internet, which takes care of advertising, receives the membership tax, different fees, etc.;
- the final component, that of enterprisers which make transactions with certain goods and services⁵.

Given the economic practice, specialists say that the use of internet leads to a decrease in business profitability if trading companies do not differ from each other, more than ever, through their own strategy.

The outcome is that the internet has to be considered a complementary element by successful business people and not as a means of traditional competition. In this respect, companies have to give up chasing clients irrespective of methods (obtaining indirect outcome from advertising, taxes for hosting internet advertisements, promotions through distribution channels etc.), to the detriment of focusing upon a quality which might draw an attractive price for clients.

At the same time, internet itself will be neutralized as a source of advantages as long as companies will adopt its technology.

Given the context in which such virtual structures exist, it is necessary to take into consideration the following aspects:

- the rules and especially the practices offered by the so called „mass marketing” have to be abandoned in favor of a personalized marketing easily adaptable to the various types of clients;
- building business relations easily and step by step;
- thinking and using interactive publications;

³ E. Ianos-Seniler, *Cybermarketing - avantaje și instrumente strategice. În spațiul virtual*, Bucharest, Oscar Print, 2002, p. 39.

⁴ Gheorghe Minculete, *Op. cit.*, pp.72-74.

⁵ Philip Kotler, Gary Armstrong, *Principiile marketingului*, Bucharest, Teora Publishing House, 2008, p. 75.



- providing potential beneficiaries of a detailed situations and not only elaborating communication methods;

- creating and permanently promoting interactive dialogues;

- creating and ensuring a mix of communication based on blending advertising with public relations; making personalized and targeted catalogues;

- determining and appreciating the long-term significance of the client;

- ensuring the conditions for the respective cyber-marketing to be supported by general programs of marketing well integrated in the management concept of enterprises integrated in the distribution circuits.

- clearly delimitating the business mission, strategies that attempt to identify unique opportunities for the enterprise, set a clear objective, and establish tactics specific to the goal envisaged;

- ensuring the setting of plans and systems of organization which might take into consideration, at the moment of on-line connection, a series of instruments capable of absorbing the flow of information from the cyber-space, thus avoiding a possible deviation of action from the online purpose previously established;

- building an on-line presence, which might encompass the specific instruments for creating an unique identity, highly individualized as compared to the competition to be found in cyber-space;

- promoting services focusing on the offer the enterprise has to present, so as to stimulate the motivation of potential beneficiaries, in order to build an on-line business in partnership with the initiating trade unit;

- devising specific strategies directed towards ensuring clients' comfort, strategies based on marketing efforts from companies, meant to eliminate the lack of trust of actual and potential beneficiaries in IT-based businesses and make them feel safe;

- devising strategies for ensuring the notoriousness of the enterprise, notoriousness being a key element of marketing actions presupposing the elements necessary for building and conducting successful actions of advertising and on-line publicity⁶.

Taking into consideration the fact that inter-company relationships have the power of developing the capacity of communicating with others through on-line networks, in the marketing-logistics interface, digital connection has to become a central preoccupation, enterprises being compelled to integrate the phenomenon in their business strategy and internal and external communication, by creating web servers and data archives compatible with specific internet technologies.

It is very important, for enterprises integrated in a certain distribution circuit and in a certain logistics channel, to emphasize the fact that according to the cyber-marketing concept, the development of so called "connected enterprises" generates within the respective enterprises an evolution from centralized leadership with a few satellite departments to organizations with mobile workers and clients hungry for information.

The advantages offered by integrating cyber-marketing in the distribution circuits and, implicitly, in the structure of logistic system, are the following:

- ensuring a notable economy of financial resources generated by the fact that electronic versions of catalogues, booklets, or fliers do not have to be printed, stored, or transferred; they can be easily updated, which leads to a shorter time allotted to different communication actions and eliminating some stages from the structure of marketing process, the electronic market allowing a rapid exchange of information with potential beneficiaries;

- giving the target audience new ways of purchasing things, the respective phenomenon being beneficial for the enterprise too, because, the more involved the client is in the specific activity of the organization in order to satisfy his/her individual needs, the more certain it is to perform the expected transactions;

- eliminating barriers of entering the market, by offering equal access opportunities to all the types of enterprises in the distribution circuit, no matter the size, the type, or the business size;

- having a permanent availability of intervention and communication means, the *on-line* information offered by servers to business people being available 24/7, without interruptions or holidays, and being accessible at any time;

- ensuring a richness of information and

⁶ Philip Kotler, Dipa Jain, Suvit Maesincee, *Marketingul în era digitală. O nouă viziune despre profit și înnoire*, Bucharest, Meteor Press, 2009, p. 19.



an interactivity highly appreciated by potential beneficiaries;

- contributing to increasing the action range of each and every trade unit, through the information offered to managers and even ensuring the possibility that staff may be better informed and trained within the decision-making process;

- getting closer to potential beneficiaries, as enterprises become capable of detecting signals indicating changes in purchase tendencies, thus being able to transform as fast as possible the image and the signals in order to be as appreciated as possible by beneficiaries;

- keeping a permanent connection of enterprises to the market pulse, as due to the accessible character of the virtual world, there is a higher capacity of adapting to the new business opportunities and the power of reacting rapidly to market changes.

As competition becomes stronger in the business world, consumers have more and more products and services they have to choose from. The future of business is now decided in the clients' minds and wallets. Successful businesses and marketing approach use anything possible to make the client choose their product or service. IT is really the most important and impressive means that may ensure a company's success. Computers

play an important role in each aspect of a company's survival, from product design and manufacturing, to creating a client data-base, to controlling the inventory, making a market analysis, advertising and sales, and finally even to the overall image and actions of the company.

BIBLIOGRAPHY

1. Ianos-Seniler, E., *Cybermarketing - avantaje și instrumente strategice, în spațiul virtual*, Bucharest, Oscar Print, 2002.
2. Minculete, Gheorghe, *Elemente de marketing în economia digitală*, Bucharest, "Carol I", National Defence University Publishing House, 2012.
3. Patriche, Iulian, *Canale de distribuție și logistică*, Bucharest, Pro Universitaria, 2006.
4. Mircea, Marinela, *Managementul afacerilor în economia digitală*, Bucharest, Economic Publishing House, 2009.
5. Kotler, Philip, Gary Armstrong, *Principiile marketingului*, Bucharest, Teora Publishing House, 2008.
6. Kotler, Philip, Dipa, Jain, Suvit, Maesincee, *Marketingul în era digitală. O nouă viziune despre profit și înnoire*, Bucharest, Meteor Press, 2009.