

Informational Trends for Organizations in Information Society

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Companies have always been very carefully managed money, raw materials, machines and human resources. Today, they recognize the growing importance of the fifth big resource: information. They have finally understood that the within the global market with increased competition, using modern methods for planning, coordination and control, a company cannot function without acknowledging information and communications technology progress.

Keywords: *information and communication technology, information society, e-commerce, telework.*

High dynamics and complexity of technical, economical, informational and managerial evolutions are reflected by fast renewal of companies' informational system. This brought a series of informational and managerial trends that become stronger every day (figure 1):

1. Dematerialization of information and elimination of intermediaries. Traditionally, information was organically associated with the elements they were referring to: raw materials, tools, machines etc. In recent years we see a trend of dematerialization of information and elimination of intermediaries. Dematerialization of information means separating a large part of them from the physical support and representing them by symbols aggregated within rigorously structured sets. They travel separately, reaching users independent of the respective products and services. Dematerialization of information is based on a series of processes recently developed:

- ▶ Modern computing technology is the support of dematerialization. It is easily understood that without the high speed and capacity of collecting, recording, storing, transmitting and processing information, separation of information from the respective resources, products and processes would not be possible and also, no automation in the shape of stand alone software would not be possible.

- ▶ Modern informational technologies, complement of the computing technology, represents the way to exploit the functional and constructive advantages of computing technology. The multitude of modern informa-

tional approaches, represented by informational languages, informational applications and data base systems constitutes expressions of these technologies or combinations of technique and technologies that contributes to the dematerialization of information.

- ▶ Codification of information inside companies means that most of the relevant information within the company is identified by numbers and grouped in a semantic manner to ensure fast and easy accessing, processing, interpretation and utilization.

- ▶ Construction of databases that reunite large sets of data concerning a certain domain or group of domains in a single system, easy to access and use.

- ▶ Internet and intranet represent two of the best-known informational approaches that are at the same time sources and manifestations of information dematerialization. Internet allowed companies to access a huge volume and variety of exogenous information, while the intranets allow access to endogenous information, from within the company, ensuring real time collaboration within the company network of all its resources.

Dematerialization of information is frequently associated with elimination of intermediaries, which means accessing the information straight at its source, not mediated by third party persons/organizations. Elimination of intermediaries is possible due to the same technical and technological progress mentioned above. Some examples of dematerialization of information and elimination of intermediaries are electronic commerce, credit cards, payment of wages through a

bank account, available through a debit card, payment through credit card, internet ads, virtual shops, virtual exhibitions. Dematerialization of information and elimination of intermediaries are components of the evolution towards an economy based on knowledge and mark an increase of applicability of information and change of its status into knowledge.

2. Improvement of marketing informational systems and informational outsourcing. In modern companies marketing is the most important organizational function that links all

other functions in order to coordinate all resources and efforts towards common objectives (global organizational objectives) through tactics and strategies based on information. Thus, the need of marketing information is more acute than ever. The need for marketing information on company level has increased due to the following market trends: switch from local to national and global marketing, switch from client needs to client desires, switch to a competition based on other criteria than price.

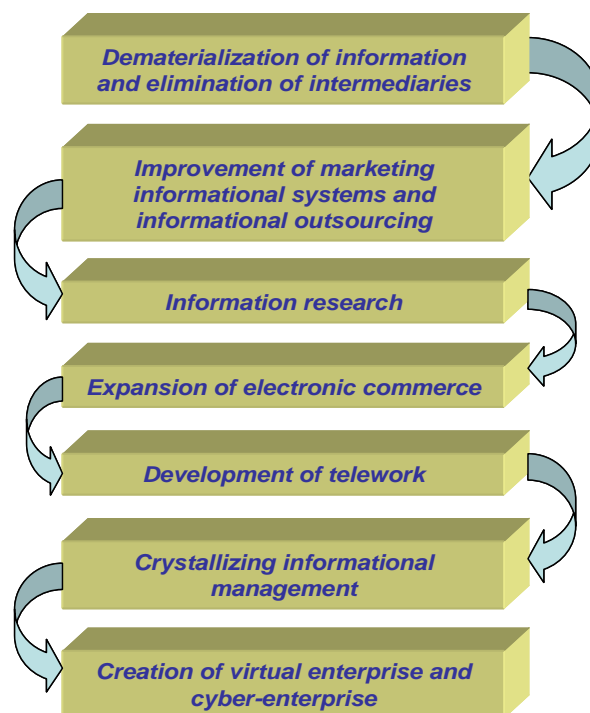


Figure 1 Informational trends for organizations in information society

A marketing informational system is an aggregate made of specialists, equipment and procedures to collect, sort, analyze, evaluate and distribute necessary information, correctly and in time, towards the marketing decision making actors. The main informational systems used as support for marketing decisions are:

- ▶ System of internal records, the most elementary system. It is made of reports on commands, sales, prices, stocks, bills, accounting etc. Marketing directors may identify market opportunities and major problems by analyzing these reports.
- ▶ Market surveillance system is a set of

procedures and sources of daily information for the directors, concerning relevant evolutions of the marketing environment and events. This kind of information come from the company sales department, partners (distributors, retailers and other intermediaries, clients), mystery shopping researches (fictional clients present at fairs and trades, shops, etc.), external sources like Commerce Chambers, magazines and other publications.

- ▶ Marketing research system. Marketing research consists of designing, collecting, analyzing and systematically reporting data and conclusions about the companies' situation on the market. Research may be a mar-

ket study, a test for preferences about a product, a forecast of sales or an efficiency study for a promotional campaign. A marketing research involves the following five steps: ❶ definition of problem and research objectives, ❷ devising the research plan, ❸ collecting information, ❹ analyze of information and ❺ drawing the conclusions.

➤ Marketing decision support system is designed to help marketing managers make the best decisions. It represents an aggregate of data, systems, instruments and techniques and technology (computers and software) that help an organization collect and interpret relevant information concerning its activity and the environment in which it operates, all these being the base for marketing decision making. Once the information is entered into the system, they will be analyzed from a statistical point of view and the optimal course of action will be taken. The advantage of this type of systems is ease of elaborating marketing studies, market segmentation, deciding

on prices and budgets for publicity etc.

3. Information research. In a classic company, about 90% of information needed by a competent manager is endogenous. Modern companies are more like open systems, as information becomes the main organizational resource. Combined with the spectacular progress of communications and computers, it leads to changes in the structure of information required by managers (figure 2). Therefore, the quantity and percentage of exogenous information increases continuously. One of the ways to answer to this trend is the information research, which defines the process of examination/investigation of the external environment of the organization in order to find information concerning events and trends that interfere with the company activities. Information research ensures collecting, processing and systematical analyze of contextual information relevant to the company's activities and performance.



Figure 2 Information research (from www.interligare.com)

Main function of the information research is to monitor evolutions of the exogenous environment. This takes four stages:

- Examining the environment, this aims to identify those contextual elements that represent changes or signal future changes with impact on the organization.
- Monitoring, this means following the events, trends and structures identified as having significant impact on the organization.

➤ Forecasting the evolution of environment elements that are significant for the company in order to ensure an informational base for decision-making.

➤ Evaluation of environment evolutions and their impact on the organization.

The first two stages concentrate on collecting exogenous information, while the other two concentrate on analyze and interpretation of those information. The most important domains that have to be researched for informa-

tion are clients, competition, technologies, legislation and other regulations, overall economy state and socio-cultural environment. Both formal and informal sources of information must be used when researching these domains.

4. Expansion of electronic commerce. Without doubt, electronic commerce is one of the most decisive mutations of the contemporary economy and enterprise, with multiple and intense economic and social consequences.

Today, the dream of building a national or international level enterprise is easier than ever since businessmen all over the world, realizing the internet potential – global coverage, decentralized organization by excellence, hierarchical structure with high speed cores – call on the web to make themselves known or develop their activities through electronic commerce. Thus, electronic commerce represents an integrated concept that design a wide area of support services for business processes, including e-mail, electronic catalogs, support systems for taking orders, logistics and transactions, statistical reporting systems and management information.

In the case of electronic commerce, applications of new information and communications technologies take over essential functions of the production process, distribution and services of all kind. No matter what level of the value chain market transactions appear – between providers and clients or commercial enterprises and final consumer – they may take place largely through ITC networks, mainly internet. There are different types of electronic commerce, differentiated by the amount of electronic support (which can involve certain phases of the transaction or all of them) and partners involved: transactions between enterprises (B2B), between enterprises and consumers (B2C), between consumers (C2C) etc.

Electronic commerce brings multiple advantages for both sellers and buyers. Buyers may procure goods and services with lower prices than classic commerce, while saving time. Sellers gain:

- ▶ Significant increase of communication speed, especially for international communi-

cations.

- ▶ Improved efficiency: data does not have to be keyed in nor on buyer's computer neither on seller's computer, thus eliminating input errors, saving work force, shrinking production and acquisition cycles.

- ▶ Lower costs: electronic mail saves mail and courier costs.

- ▶ Improved communication with clients and providers: company web page is easily updated with latest information.

- ▶ Alternative sale channels, like business via an internet site.

Positive effects of electronic commerce on economic processes are widely known today: lower cost of transactions, better allocation of resources, increased scale savings, better competitiveness of companies thus increased ability of companies to create value and compete on global markets.

5. Development of telework. One of the recent trends on organizational level is development of telework – performing activities (usually of informational nature) outside company premises. Technical base of telework is telematics, which means convergence of computers and communication technologies, allowing companies to perform some services and activities with lower costs, on sites outside main compound, sometimes at big distances. Personnel that performs this kind of activities are called teleworkers.

Main advantages of teleworking are: decrease of company costs, better use of top technologies, better use of opportunities outside the company, securing and using exogenous resources and competencies, increased flexibility of activities, increased diversity of products and services offered to the market, increased financial competitiveness of company etc.

6. Crystallizing informational management. All trends described above reflect in the global organizational plan in the creation of the informational management, which has two meanings. Many specialists call informational management the type of organization management that has a powerful informational dimension, reflected by the attention given to information while conceiving and

executing managerial processes and relations. A second meaning considers and uses information and aggregated informational processes as a separate domain, with powerful particularities, that has to be managed in an unified manner in order to efficiently use its possibilities.

The two meanings complement each other. Creating a functional and efficient informational management within organizations is a laborious process, that requires high involvement of managers and employees, profound changes in organizational culture and a pragmatic approach to the implementation of informational management. There are several models of implementing informational management:

- ▶ Technocratic-utopist, described by a clear technical approach of informational management, with accents on classification and modeling the aggregate of informational assets, and wide use of emergent technologies.
- ▶ Anarchic, defined by the absence of any informational policies on organizational level, allowing employees freedom in gaining access to information and using it.
- ▶ Feudal, centered on informational management of each organizational subdivision, which define their own informational needs and sends few information to the top level.
- ▶ Monarchic, where information categories and structures are decided by top managers that may or may not allow access for employees after the information is collected.
- ▶ Federal, described by basing the organization management on negotiations and con-

sensus on the main information and informational situations within the organization.

7. Creation of virtual enterprise and cyber-enterprise. Most authors consider the virtual organization a company who's employees are dispersed in time and space. Main differences from a classic company are:

- ▶ It is a geographically dispersed company, which means delocalization of social relations inside the company.
- ▶ Covers space and time differences that characterize work inside an organization.
- ▶ Employees may work anywhere, anytime and still successfully do their job.
- ▶ The newest ITC technologies allow for geographical dispersion.
- ▶ ITC allows employees in different places and positions to interact and work together.
- ▶ Electronic mailing, internet, intranet, extranet and videoconferences are the main technologies, widely used.

An even more advanced use of ITC is found in cyber-enterprises, defined as electronic inter-connection between persons or groups of persons. The mission of such a company resides in collecting orders, choosing the coordination model, organizing and managing activities to transmit the product to the client. All these activities are performed in cyberspace (the universe behind the computer screen) and are linked to cyber-enterprise. The cyber-enterprise uses a cybernetic work platform that favors development of electronic commerce. Usually, cyber-enterprises are formed by one or two persons and all activities are immaterial (figure 3).

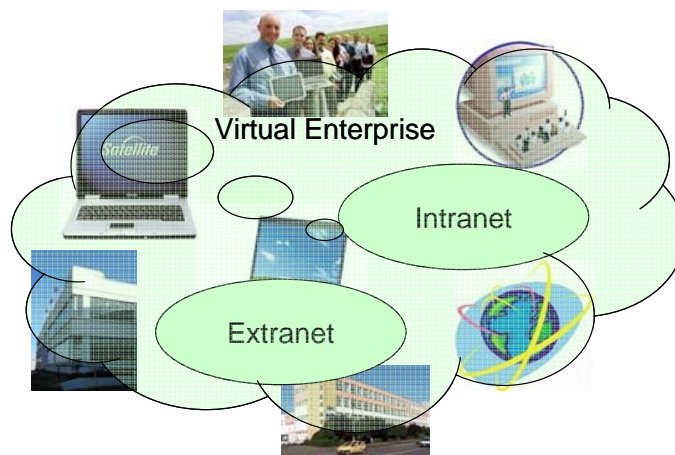


Figure 3 Virtual enterprise

There are two main differences between the virtual enterprise and cyber-enterprise: permanent contacts between cyber-enterprise and collaborators are made entirely through ITC but they take place only in cyberspace or via e-mail. From a juridical point of view, the

cyber-enterprise is a quasi-enterprise, meaning that it does not have its own products (it does not sell its own products, but offers services that belong to other enterprises – figure 4).

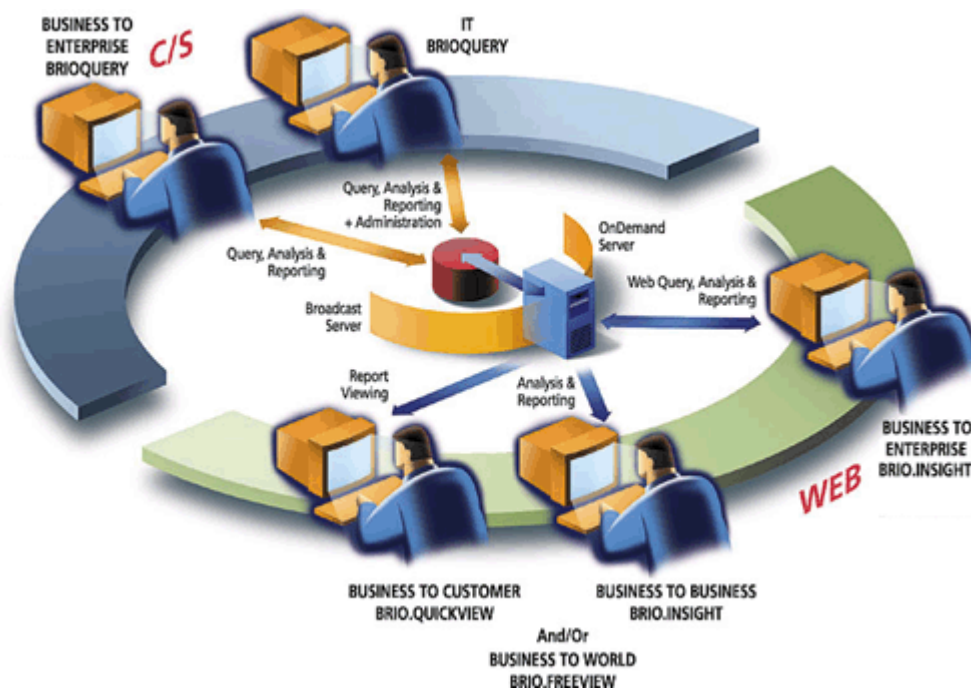


Figure 4 Cyber enterprise (from <http://www.mercator.gr>)

Finally, the cyber-enterprise is the ultimate type of delocalized enterprise, whose services are available 24/7. The enterprise breaks the time and space barriers to serve the planetary market and the spinal cord of such an enterprise is technology.

Internet revolutionizes informational management of organizations, radically changing the relations between consumer, intermediary and producer. Internet allows producers to address directly to consumers, individually and interactively, facilitating closer relations. New cheap marketing techniques allow personalized communications with the clients. At the same time, internet allows consumers to play a proactive role: requesting information, distribution of information inside virtual companies, price proposals. All these transfer a part of power from the producer to the consumer, radically changing the nature of organizations' informational systems in the informational society.

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