

## THE INFORMATION SYSTEM AND ORGANIZATIONAL CULTURE - FACTORS IN THE DEVELOPMENT OF KNOWLEDGE-BASED MANAGEMENT

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**Abstract:** *In a society where information is power, the information system will be, inevitably, a key element in the implementation of any management strategy. In a competitive system, the activities of research, development, innovation in new technologies in the market are needed to ensure economic success. Therefore, an effective system of information management helps project managers to find the necessary information for making different decisions in different moments.*

**Key-words:** *information, information system, information flows, competition, organization, data, goals, decisions.*

In analyzing the present topic we start from the assumption that the information system represents a set of data, information, workflows and information channels, procedures and means of treating information designed to contribute to the establishment and implementation of the various objectives within an organization.

We may take into account the fact that such a definition of the information system is comprehensive, in that it includes the information, information flows and data processing facilities. It would also be necessary, a second clarification regarding the difference between the computer system and the information environment. So, in short, one can specify that the computer system comprises the collection, transmission and processing with automatic means of information, while the information system has a certain specific complexity, as I pointed out.

In the business environment, which is highly competitive, *"the information is progressively required as a tool (...) and institutional and policy makers must be aware of the more pithy contents of the new information society, as to take the initiative and encourage innovations"*.

In a society where the information is "power", the information system will inevitably represent a key element in the implementation of any management strategy.

The main objectives envisaged by most SME (IMM) managers, refer to the survival of their economic activity and the positive results that turn their business into a profitable pursuit.

In the event of a "financial crisis" (as is the case for the moment), managers need a real survival kit to overcome any blocking steps in their approach: management plans, strategies and avoidance techniques, i.e., remodelling and reconfiguring the stages thus, leading up to the economic objectives.

For such a survival kit, scientific and economic information are absolutely vital. This is why there is an uptrend in the development and organization of information networks and the establishment of partnerships between SMEs and public institutions.

In times of economic instability, the need for a plan of reorganization and restructuring of the internal management is required, and the development of an organizational culture within the structure of the business (firm, company) is of utmost importance. The organizational culture has a number of dimensions and attributes depending on which is structured: the external environment, mission, strategy and strategic goals.

The ways in which can be defined the "organizational culture" is the following:

- a) Depending on the results, this culture can be perceived as a manifest pattern of behaviour: "how we operate". Thus there are defined consistent ways in which people perform tasks, solve problems, and act beyond crisis situations.
- b) A process of organizational culture is, in essence, a set of mechanisms which create a consistency that goes beyond individual behaviour,

including internal values, norms and beliefs that govern the interactions of members of an organization between them and with the exterior, as it has been defined by Killman, Saxton, and Serpa.

According to Edgar Schein, the organizational culture should reflect "the basic expectations model on which a particular group invented, discovered, or developed during the learning process of solving problems regarding the external and internal integration, adaptation and that worked well enough to be considered valid and, consequently, to be presented to new members as the proper way to understand, think and feel in relation to those matters".

The organizational culture enhances the stability of the organization and provides for its members the insight they need to discover the meaning of the events and activities taking place in the organization, in the context of daily activities and the link between its members will have common values, attitudes and expectations in the project management application.

In this regard, the organizational culture can therefore be seen as the way in which the organization solves the problem to achieve specific goals and to survive over the long term. "It's a holistic body, determined by the changes happened in time, built and difficult to transform".

In a competitive system, the activities of research, development, innovation in new technologies in the market are necessary for economic success.

Changing the technological methods or the implementation of innovative management techniques may require time to be used in an efficient manner. A considerable amount of information is obtained during the planning, management and monitoring of the project. Some of this information is used for making immediate decisions; others, for making further decisions.

Therefore, an effective system of information management helps the project managers to find the necessary information for taking different decisions in different moments. Information can be obtained from various sources: reports of technical personnel, records, questionnaires, supplemented by various participants, meetings, interviews, and graphics.

The purpose to obtain such information is to discover the relationship between supply and demands on the market in a given time, for significant effectiveness in carrying out the work of management within companies. Research – innovation and development is responsible for meeting the needs of the developer oriented towards the action.

Innovation is not just a linear process, in one way, as a starting point the fundamental scientific research, followed by the development and application of technological knowledge by the users. Innovation is an interactive model, determined by the extent of scientific research and the demands on the market<sup>5</sup>.

The National Statistics Institute, in a press release dated July 27, 2012, showed a report on

innovation in industry and services, for the period 2008-

2010.

Thus, the following issues were highlighted:

- During the period 2008-2010, of all companies with activities geared towards the market, 30.8% have innovated products, processes, methods or organizational marketing methods.
- The most innovative sector of activity in the industry was the manufacture of basic pharmaceutical products and pharmaceutical preparations and insurance activities, reinsurance and pension funds accounted for the most innovative services.
- The companies have inserted twice as many new products for the enterprise than new products for the market.
- Over one-fourth of the number of enterprises have implemented innovative changes in the structure of the undertaking, business practices, management methods or methods of sale of the products.

- Lack of funding was the main factor blocking for innovative activities.

- Innovative enterprises have used their own employees with skills in market research and design objects and employees from external sources for software development, web design and graphic arts, layout and advertising.

Companies that have introduced only significantly improved or new products have had a share of 2.4%, while businesses that have implemented new or significantly improved processes have had a share of 3.6 percent, while those who had both products as well as new or significantly improved processes have achieved a share of 7.8%. The share of enterprises having reported unfinished or abandoned innovation has remained the same for only 0.5 percent of the total enterprises. In the table below, one can trace the evolution of technological innovators, in comparison with the previous period, from 2006 to 2008.

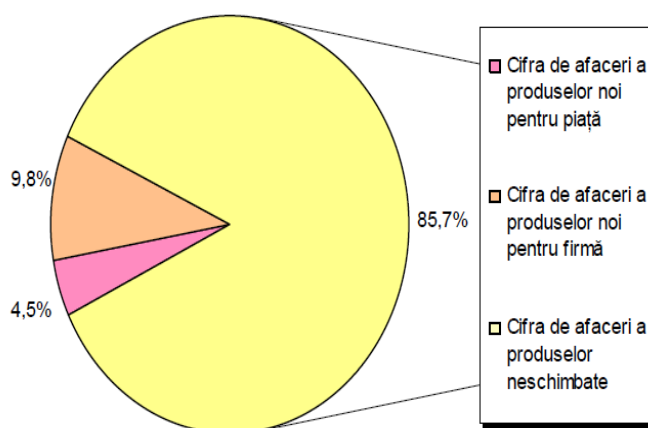
	The share of the total number of approach towards enterprises (%)	
	2006 - 2008	2008 - 2010
Enterprises with technological innovation	19,7	14,3
Product only innovators	2,4	2,4
Process only innovators	6,6	3,6
Product and process innovators	10,3	7,8
Enterprises with unfinished or abandoned innovations	0,5	0,5

**Fig.1 The evolution of the technological innovators.**

The study shows that in 2010, more than half of the turnover of the enterprises, respectively 58.5% was carried out by innovative enterprises. The turnover of enterprises with new or significantly improved products was 14, 3%.

The share of enterprises with new products for the enterprise was 9.8%, and that of enterprises with new products for the market was 4.5%. Innovative enterprises operate half of the number of employees in enterprises, respectively, 31.2%.

**Ponderea cifrei de afaceri a produselor noi, în total cifră de afaceri a întreprinderilor, în anul 2010**



**Fig. 2 The share of business figures of new products**

This study contains the results of share blocking factors with the highest degree of importance to the technological innovators, innovative enterprises in total, during the period 2008-2010. One of these factors is

represented by the roadblock of the lack of qualified personnel.

They also have tested new indicators on human capital used in innovative enterprises. To carry out

innovative activities, the undertakings have had a need for people with certain skills. These people were part of the actual formed team inside the company or taken from external resources.

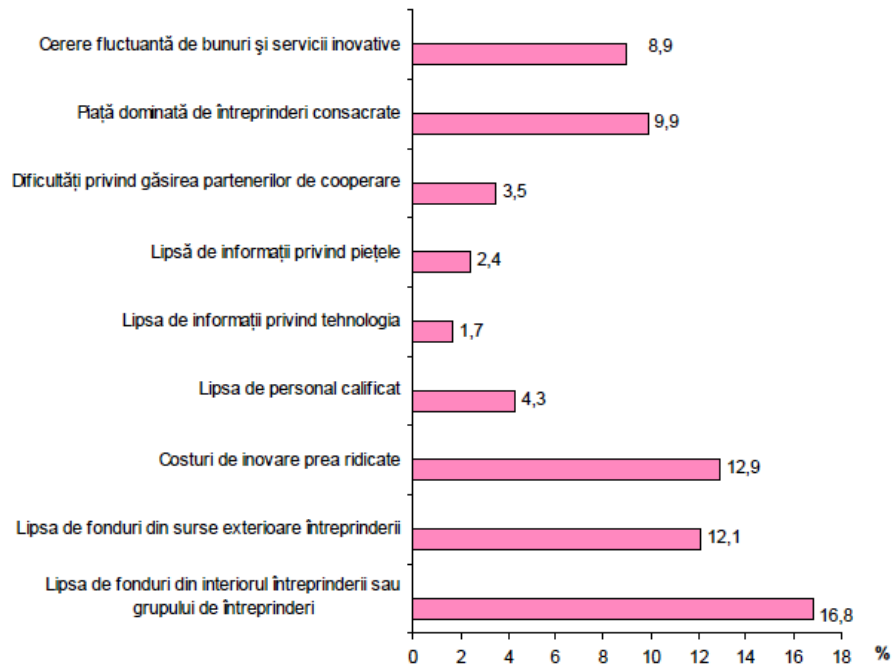
From the statistical research results that most of the employees were used to market research 42.2% and

The main methods used to encourage successful new ideas or creativity among employees of innovative enterprises were financial incentives in the ratio 31.9%, the training of *knowhow* for developing new ideas

29.0% for objects design . Employees coming from external sources have been used for software development 32.9%, web design graphic arts 24.6%, advertising, layout, and 21.6%.

and non-financial incentives 24.8% (leisure, public recognition, work more interesting) mentioned by 22.3 per cent of innovative enterprises.

**Ponderea factorilor de blocare cu cel mai ridicat grad de importanță,  
pentru inovatorii tehnologici, în total întreprinderi inovatoare, în perioada 2008-2010**



**Fig 3. Blocking factors for technological innovators.**

## CONCLUSIONS

In summary, we can specify that the computer system comprises the collection, transmission and processing with automatic means of information, while the information system has a specific complexity, as I pointed out.

These elements which compose an informational system, in general, in carrying out all activities of institutions represent a sine-qua-non condition for proper understanding, not only of information issues, but also, more generally, of managerial issues.

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