



Jeanina Biliana Ciurea

THE INNOVATING ENTERPRISE

The technological revolution triggers important transformations at the company level. In the context of the transition towards an economy based on knowledge and of the increasingly sharp competition at the global level, the competitiveness of a company is determined by its capacity to invest in know-how, technologies and knowledge which allow it to optimise the effects obtained at the level of the company as a result of the creation and sale of certain new technologies. In an economy based on knowledge, the competitive company is receptive to the novelties of the environment, able to continuously and rapidly adapt to the changes brought by the technical progress.

The managers of great multinational holdings have become aware of the fact that, in the long run, the only way to achieve the continuous improvement of performances, to satisfy the shareholders' goals of maximising the company value, to increase the employees' satisfaction, to maintain competitiveness and a top position in the industry where the company operates, is to innovate.

According to the definition accepted today in developed countries (www.statcan.gov, www.cordis.lu), an **innovating enterprise** is that enterprise which in the last three years has introduced a product / service significantly different from what it used to produce before or a technology significantly different from the previous ones. Nevertheless for Romania this definition is insufficient. In this context, L. M. Băloiu and I. Frăsineanu, in the work „Innovation in economy”, Economic Publishing House, 2004, suggest the following definition: „the innovating company is the firm which in the last three years has introduced new products / services, specific for the knowledge - based economy, come from the valorisation of a new idea rather than through the transfer from the exterior of certain products / technologies trivialised in the origin country”

In the industrial era, the traditional enterprise was based on the principles of bureaucracy, avoiding the adoption of the changes of any kind and focusing on the efficient use of available resources, by replacing the human work with machines

and human intelligence, with specialised tools and complex handling devices for the low-cost large-scale manufacture of standardised products, during long life cycles for product / market.

In the context of the acceleration of the rhythm of technologic changes, of the increase of competition pressure and on the basis of the change of consumers' requirements, who demand in an increasingly shorter time a variety of new high quality low price customised products, safe in exploitation, a traditional company cannot respond to such challenges.

The firms, especially the large ones, do not have in fact other alternative than to rely on information. Demographic phenomena on the one hand require this mutation. The centre of gravity in the sphere of employment is represented by the rapid passage from manual work and office work to knowledge-based work, which is opposed to the command and control model business took over from the army 100 years ago. The economic aspects, on the other hand, impose the change, especially the necessity of the apparition of certain companies to play the role of innovators and entrepreneurs. Above all, nevertheless, the information technology triggers the change.

The main transformations determined at the level of the company by the integration of computer and information and communication technology in manufacture are synthesised in the table below:

Table 1. The main transformations at the level of the company

ASPECTS FOLLOWED	CHARACTERISTICS OF:	
	TRADITIONAL ENTERPRISES	INNOVATIVE ENTERPRISES
Work organisation	Base don the routine tasks	Based on initiative and creativity
Nature of activities	Prevalence of the unqualified activities	prevalence of knowledge-based activities
Focus of activities	On the specialisation of working tasks	On the elimination of functional boundaries
Role of employees in the company	Instituting discipline and conformity among employees	Promoting the innovating spirit and creativity among employees
Structural organisation of the company	Hierarchical - functional	Of the network type, based on projects
Activity co-ordination	On the vertical	On the horizontal
Manner of establishing tasks and goals	Well defined individual tasks	Goals set by project teams

Processed after Dumitru F., *Informational technologies: role, characteristics*, The Economic Tribune / Tribuna economică, issue 9/28.02.2001.

The complexity of transformations does not allow the direct passage from the traditional approach of the company to the characteristics of an innovating enterprise and this implies a transition period. The changes faced by companies in transition may be best synthesised by the concept of "bi-modal company", which shows that the company should operate coherently in the circumstances of the manifestation of certain contradictory trends: centralisation – decentralisation; stability – change; uniformity – diversity.

The external factors imposing innovation:(1) The imperative need to develop or at least secure the position of companies on the market; (2) the requirement of the market to diversify their output / supply; (3) Competition. (4) the obligation to align to normative imposed by the government, legislation, social requirements (5) the need to handle the decrease of supply or the increasingly expensive raw materials.

Besides the five factors mentioned above, there are also internal factors of the company, such as:(1) the company development and (2) the vision of the top management.

The list of the conditions to be reunited for a good innovation at the level of the company is presented below:

- the activity of introducing the new is supported and encouraged by the company's management;
- a good circulation of information
- a good knowledge of the market and of its requirements;
- a tight contact with the scientific community
- the existence within the company of certain people with a high scientific and technical potential, both in the R & D service and in the other departments and last but not least in the very directly productive sectors
- the acceptance of "strange" ideas very much cherished by those who forwarded them;
- the existence of a competent team that could solve all the problems occurring along the track of the new project, from the stage of research to industrial application;
- building up interdisciplinary teams with the task of introducing innovating elements;
- a good motivation of those who are concerned with such things, which always supposes a strong support from the part of the leading management of the company; the existence of a clear and correct procedure for the assessment of results and of the employees' activity;
- the existence of a competition climate, both within the company and outside it;
- providing a "training" for the people in the sense of creativity;
- a clear strategy of the company, clearly formulated goals; a clear settlement and delimitation allowing the efficient channelling of the renewal efforts ;
- a policy of focusing the resources of the company on a reduced number of innovation projects;

- a correct financing doubled by a good management of the entire innovation activity;
- the involvement of the research service in all the phases of the new project, from the decision of its adoption to the reaching of the large scale manufacture (or the incorporation of the new technology in the normal working regime);
- the capacity to accept ideas come from outside the directly involved departments in the making of renewal decisions and the practical application of these decisions.

It is admitted that there are 7 factors explaining why certain enterprises (especially small and medium ones) are more innovative than others are. The 7 factors are:

1. *Opening towards the environment of the company*: capacity to listen, follow, open to the exterior;
2. *Human resources*, in fact the most valuable asset of a company;
3. *Technological resources*, internal or external
4. *Financial resources*, very diverse but almost always insufficient,
5. *Company's organisation*, both as regards its formal aspects and the informal ones;
6. *The strategy adopted*, an essential element, very often ignored by the SMEs;
7. *The manager*, by his / her attitude towards innovation, the manner he / she succeeds in assuring the interface with the exterior, by the structure (hierarchised or open) he / she impose to the company.

In applying the innovating policy, a manager should take into account certain rules, i.e.: in each innovating process the feedback process must be introduced, from results to expectations.

A company facing a new project should create a new structure, considering the following rules:

- the structure should be really new, totally separated from the old structure (or else those from the old structure will be totally caught in the issues of current manufacture, will have the normal tendency to postpone the issues raised by innovation: you do not renounce to sure things for unsure hopes) ;
- a person from the top management of the company must be in charge with its organisation and management;
- the new products must be supported, accepting the idea that in the beginning they do not have to participate in the benefits or the solving of the momentary financial difficulties of the company. An emerging issue is that of wages, which cannot be solved following the criteria similar to those in "stabilised" departments.

Among the ways of action of a company in order to stimulate the innovating activity we may cite (after M.E.Porter, "The competition advantage at the international level", in *Synthesis / Sinteza*, **1987 (1991)**, pag 3 - 10):

1. *Searching for the clients with the most difficult requirements*
2. *Establishing certain norms exceeding the requirements of the most strict regulations, quality standards etc...*

3. Using the suppliers who are most advanced and best positioned from the competition viewpoint.

4. An appropriate personnel policy

5. The competitors from the sector should be treated as a source of motivation

It is appreciated that the innovating enterprise based on information and knowledge will be the enterprise of the future: a flexible and high-performance enterprise. The innovating enterprise is characterised by:

- A high degree of receptivity to the fluctuation of demand;
- Flexibility and capacity of rapid adaptation both to the variations regarding the nature of materials and to the conditions of their processing;
- Capacity to manufacture a wide range of quality products, with low costs and in a short period of time;
- Ability to integrate new successful technologies into the existing system, under the circumstances of minimum interruption delays and costs.

The main target of the European Union, the increase of economic performance, is sustained by the stimulation of creativity and technological or organisational performances by means of innovation.

The Lisbon strategy proposes to reach a threshold of 3% of the European GDP for the expenses allotted to support the innovation of product and / or process. The necessity of attentively following the innovation evolution led to the building of a system of statistic system with 2-year periodicity, harmonised for all EU member states, to which the National Institute of Statistics of Romania also adhered.

The most recent data regarding the level of innovation in Romania is based on the results of statistic research of the activity of innovation for the period 2002-2004, harmonised with the community survey CIS 4 (Community Innovation Survey). It was performed in June 2005 on a sample 11542 companies with over 10 employees. The deadlines for collecting, processing and publishing the data are harmonised for all countries participating in the project. The results are guaranteed with a $\pm 5\%$ precision.

The results of the statistic research on innovation in Romania for the period 2002-2004 shows that:– one company out of five innovated products or / and processes; in industry there are more innovating enterprises than in the services sector; larger companies are more innovative than the small and medium ones; out of the total expenses for innovation, the highest percentage is formed by the expenses for the purchase of machines, equipment and software; out of the total number of innovative enterprises, 19% declared the realisation of innovation through co-operation; the main effects of innovation are the improvement of quality of goods and services and the increase of the manufacturing capacity; the information used for the support of innovating process were obtained mainly from the personnel of the company and from business partners

The total value of innovation expenses in 2004 was of 4,589,077 thousand lei (RON).

The main results prove the necessity to further develop an economic and legislative framework stimulating innovation, at the level of all companies of Romania.

The percentage of innovating enterprises in the period 2002-2004 is of 20%, compared to 17% in the years 2000-2002, increase that proves the improvement of the economic milieu in our country. Out of innovators, 67% have both product and process innovations, 9% were only product innovators, and 24% were only process innovators. Out of the total number of companies in the industry, 22% are innovative, whereas in the services sector the percentage of the innovative ones is of 17%. In the period 2000 - 2002, 19% of enterprises in industry were innovative and only 13% are from the services sector. The weight of innovative large companies is of 42% out of their total number compared to only 16% among small companies and 25% among medium companies. The co-operation in the domain of innovation supposes the active participation in the research and development projects of innovation common with other enterprises or organisations in the country or abroad. The co-operations within the national frame had a weight of 60%, with the countries of Europe 32% and with the USA and other countries 8%. 37% of the innovating companies mentioned as main effect the improvement of quality of products or services, 32% mentioned the increase of the manufacturing capacity and only 18% mentioned as main effect the reduction of the negative impact upon the environment and health or the increase of the degree of work security. The cost factors sometimes blocked innovation. Out of the innovative companies, 31% mentioned as blocking factor of innovation the lack of financing and 30% mentioned too high innovation costs.

References

- [1] Şipoş, G.L. *Innovation in enterprise*, Mirton Publishing House, Timișoara, 2004
- [2] Băloiu, L.M. *Innovation in economy*, Economic Publishing House, Bucharest, 2004
- [3] L.M. Băloiu, I. Frăsineanu, *Management of innovation*, Economic Publishing House, Bucharest, 2001
- [4] P. Drucker, *On the profession the management*, Meteor Press, Bucharest, 1998
- [5] www.agir.ro/articol.php/id_articol
- [6] www.Insse.ro/Statistici/communicate/alte/Comunicat_INOVARE_nr52038.pdf

Address:-

- Assist. univ. Jeanina Biliana Ciurea, "Eftimie Murgu" University of Reșița, Piața Traian Vuia, nr. 1-4, 320085, Reșița, novici.jeanina@email.ro