THE DEVELOPMENT OF PRODUCTION ACTIVITY IN ENTERPRISES BY INTRODUCING OF MODERN TECHNOLOGY

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Abstract:
Enterprises are the main engine of economic growth because of their performance depends the competitiveness of the entire economy. Also, the best technology for a company is that responds and the financial constraints, the degree of preparation and the level of human resources knowledge, but above all the need of customer demand satisfaction. In the contemporary context of economic globalization, the pressure exerted by international competition on Romanian enterprises, requires them to search useful and efficient solutions oriented towards for increasing the production activity and the competitiveness on the global market. The essence of increasing competitiveness for Romanian companies in relation to foreign competition on the global market may be translated into cheap and good quality of products.

Key words: Development, Information technology, Innovative enterprises, Production process, Investments

JEL Classification: O10; O31, O32, O40, O43

1. Introduction

In this paper we analyze the impact of modern technology implementation in the production activity of enterprises. By introducing the advanced equipment, inside a technological process along with its corresponding administration, will lead directly to costs reduction (with raw materials, energy, salaries). The choice of a technical solution should allow the integration of new technologies with existing facilities. Furthermore, it is necessary to make an analysis of cost benefit and the calculation of indicators related to performance on different technologies which they can provide over time. For small and medium enterprises the diffusion and transfer of technology, the innovation and research can increase their economic performance. But the access to these resources and means it is not easy, especially in our country's economy. The financial support from public organizations may increase the chances for the adoption of solutions in this direction, but only under conditions of a close monitoring of various strategies implementation.

On the other hand, public intervention to be complemented by other support schemes. In this sense, the development of public-private partnerships and cooperation between private entities can offer alternatives for increasing the competitiveness of small and medium enterprises. Any modern technological equipment is oriented not only to cost reduction but also to improve product quality. Same assets, but with another know-how leads to obtain of similar products, but very different when it comes to consumer choice. The conception, accuracy and facilities offered by hi-tech lead to achieve of competitive products which are impossible of obtaining with the old technologies. The use of modern technology, by Romanian enterprises, contributes decisively to improving to market position, diversify production and costs reduction. Currently technologies, represents one of the bases of compared and competitive advantage, both at the firm level and at the country level.[5]

The main difference in technological potential represents just the quantification of this comparative advantage. In addition to management and marketing, technologies mean creativity in terms of the company's products and the rest of functions (management, market assault, etc.). Through all of these roles, and their sphere of coverage that they are assigned technologies have become an important factor of production along with labor that exploit and put in value.
2. Investments in advanced technology can generate a sustainable development for enterprises

The placement of financial capital in real assets cannot be made without consideration of technologies both as options for the investment project and the structure of competition and market competitiveness. An investment achievement which could be characterized as high tech is an important factor of economic development. The investment in technology as a factor of production generates a strong effect of growth rates of economic development both as national and per capita income. The economic agents that do not involve in their strategic decisions to increase investments in modern technology will be rapidly characterized by non-competitive and therefore they will be eliminated from the market. Information technology, which most modern component of technology, there are already in different forms (from the most primitive to the most complex) in any economic system with spectacular beneficial effects on people, businesses, institutions, governments, nations in general. Most specialists appreciate rightly that the structural elements of investments in information technology are follows: communication networks, human resources, services and specific knowledge, etc.

Figure. 1 Interaction between investments in modern technology and development of production activity of enterprises

Investments in communication networks make possible economic the interconnection of enterprises so that their decisions to be interconditioned within the spectrum of action and their activities must be concomitantly carried out in full accordance as a manner of action and like final objectives. The networks allow of varied users categories to transmit / receive / collect information in a great variety of forms (text, images, voice), by this facility the economic agents are interconnected, which allows them to act in complete harmony with the requirements and restrictions of the market.

The investments in Services and specific knowledge allow the co-participants at the economic life to carry out more determinations actions through the access to databases and virtual libraries, reduce the complexity and bureaucracy dimension of transactions and allow the actions to be carried out with an almost perfect transparency in real time, making from information technology an integrated component of economic activity which significantly reduce
The education, regardless of the person action domain it must be able to communicate and process data and it is changing. The daily activity of family members increasingly resembles more and more like an enterprise with a consolidation of information technology elements, it might resolve one of the great problems of the Romanian that in near future sustained efforts are necessary for the implementation of modern technologies by Romanian. Although these elements can be seen in the Romanian economy, however the effects are still fragile. Thus, we believe information by using modern information technology.

- Services – public deficit budget and efficiency of tax collection are improved thereby increasing the activity of local or central public administrations
- economic activity of households - the way in which people are making purchases, learn fun and communicate them, it is changing. The daily activity of family members increasingly resembles more and more like an enterprise with a high performance activity. The use of telephony, media equipment or computer becomes an ordinary phenomenon.
- The education, regardless of the person action domain it must be able to communicate and process data and information by using modern information technology.

Although these elements can be seen in the Romanian economy, however the effects are still fragile. Thus, we believe that in near future sustained efforts are necessary for the implementation of modern technologies by Romanian enterprises in the production process. If the Romanian Government Strategy should consider realistically the consolidation of information technology elements, it might resolve one of the great problems of the Romanian economy, labor productivity, today still quite low compared to its level in developed economies.

3. The increase of production activity within innovotive enterprises

The great potential of new technologies has led to the widespread idea, of extraordinary wealth and comfort for everyone. Modern technology allows a high labor productivity and at the same time facilitates carrying out of management processes that have the role in improving productivity at all departments of enterprise.[1]

Even if the investment in information technology costs involves quite large they can be recover quickly by the fact that investment enter fast in operation, but also because of high rates of profit in activities that involve hitech. In this context the immediate effect would be that the Romanian economy should become a digital economy and the finality would be constituted by a socio-economic system based on knowledge with real chances to of recovery in the process growth. The introduction of new technologies leads transformation of internal production systems but the way in which efficiency changes are produced in different sectors differ substantially.

The increase of efficiency and external competitiveness, depend on the specific factors such as education and culture level of labor factor and the specific conditions of infrastructure communication ways. On this background we consider that the main criterion for Romanian socio-economic system competitiveness which tends to integrate into the paradigm of knowledge economy must become the quality and quantity of information that can be managed by each company.

In an economic system based on information economic actors can capture and analyze complex information, complete and in real time, so have free access to the market. For to survive on market an enterprise needs to know at any moment the exact situation where he is and competitors, to perceive and realize in real-time the changes and appearances of informations on market, to take fundamental decisions, to adapt and innovate continuously.[4]

For this purpose, Romanian enterprises must spend significant sums assimilated of hitech acquisition and know-how related to information. Diversity is the main reason that the information becomes a factor of production. So, generally this phenomenon spread widely affects supply and demand, but also the quality and quantity of the factors that may lead to changes on market. The information is present within of each product. In the price of goods is represented in an increase proportion as a sum due to conception and information. Any economic or public good contains intrinsically a greater or lesser quantity of information. The quantity and quality of existing information on the national economy, and the way they circulate and are managed influence the economic development process.[3] The informations are those that create business opportunities, the decision to invest with direct impact in the growth of the national capital stock is a function that essentially depends on the quality and quantity of informations. The efficient information for the
increased productivity level of modern technologies is required in making decisions and human processing decision making and human processing.

The creativity and information are considered today the main factor of production because improved work quality and real capital productivity, in the end determining increase the quantity of final goods with much higher utility. On this background the golden rule for Romanian enterprises we appreciate that it can be expressed by: Freedom-Creativity-Technical Progress and Development. [6] The companies that operate through the integration of obtained information in production processes obtain a qyasmimonopol profit because the information is reproduced at zero marginal cost. Technological progress is the product of economic activity, of the market and it is not only the result of production activities, whereas market induce any kind of knowledge. As long as development is dependent on the future evolution of market situation that it cannot be predicted accurately, the companies begin to have a permanent adaptive behavior of strategies the expense of the profit attitude was permanent optimized. In the technological and economic evolution is needed a permanent development of new economic solutions for adaptation to global market.

In conditions of rapid technological development, with direct effects on the life cycle of products and technology, economic enterprises must answer market requirements which is in continuous evolution. The high volume of information, the rapid technological progress of last decades the development in an accelerated rhythm of new products make required of innovative enterprises in their attempt of keeping up with the market requirements to be connected to the flow of information in their field of activity. Only in this way they can identify the existing trends, the technologies used by competitors and to prefigure future requests which they must be aligned. Moreover, the information technologies and communications is a representative element for the enterprises characterized by a high level of creativity and competitiveness on domestic and international market, which can constitute an essential factor for innovation and technological transfer. Of course, an essential component for innovation and perhaps most important, is the creative thinking for finding solutions. In order to create solutions that can constitute the premise of technological progress, human resource must be educated, instructed, the knowledge is the cornerstone, the key component of global economy based on knowledge. On the other hand, due to the numerous financial constraints faced by enterprises they rarely succeed to apply the latest technology. Most often, they make use of a combination of simple technologies with modern technologies and to adapt the technical endowment according to their needs and financial possibilities. The state, through its organizations and by a series of measures can support enterprises in their efforts to implement modern technologies. Within the National Plan 2007-2013 for Research, Development and Innovation SMEs are encouraged to develop the partnerships with research institutions and innovation in order to create products and services based on innovative technologies. Using as a form of support for innovation circles are financed activities such as: industrial research, experimental development, technical feasibility studies, protection of intellectual property rights, process and organizational innovation in services, availability of support services and innovation consultancy.

A means of SMEs stimulation in taking over the new technology consists in fiscal measures established by state. One of them is the exemption VAT payment on imports of technological equipment. In addition, the reduction in income tax for companies that invest in next generation technology can facilitate the access to technological performance equipment. Also, a number of programs have given rise, in the last years, of a significant number of projects, aimed at stimulating the entrepreneurial activity development, the increase of SMEs competitiveness through innovation, research and technology transfer. One of the programs financed by the European Union in this direction is intended to stimulate innovation and competitiveness by taking over the technology information and communication. Romanian Government offers a system of State aid for investments that promote the SMEs development using of new technologies and job creation being financially supported the enterprises that act in the fields of information and communication technologies, research - development, innovation, energy, and high tech manufacturing industry.

4. Conclusions

In the order to increase international competitiveness of Romanian enterprises the innovation must become a process of decision on the investments allocated for the production of new ideas used in the final goods. In the contemporary context of economic globalization, Romanian companies are faced with more and more pronounced pressure caused by the massive and rapid changes which are registered in the global economy of the production and distribution level. It is a truth universally recognized that a company is competitive when produces and markets competitive goods or services. The information relating to the market in which companies are acting (or would like to act) is essential for the success of products and services on the concerned market. Thus, in the context of globalization, Romanian enterprises face a pressure extremely pronounced in due to massive and rapid changes which registers in the world economy, at the level of production and distribution.

Due to the intensive of informational nature of globalization in order to gain a high level of competitive enterprises from our country have to make major investments in research and development concomitantly with the integration the advanced IT and techniques of communication in production process. Therefore, the fierce competition at global level has transformed "knowledge" into a vital force of the economy, for survive, romanian companies have to allocate the significant resources in order to obtain knowledge. As regards small and medium enterprises, despite the certain progress made in recent years, there are still problems due to the limited available resources, the difficult access to

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finance, significant technological gap and the lack of know-how, allowing them a rapid adaptation to demands of European market and to changes in global economy. The opening markets causes a competitive pressure on enterprises, especially in romanian traditional industrial sectors, and particularly romanian SMEs, will be exposed to numerous changes in the business environment. Therefore, the efforts to sustain the enterprises will concentrate mainly on improving access to markets, capital and on the development of tehnolgical process, paying a particular attention for SMEs according to the principle proposed by EU “think small first level”. Today is clear that, the majority of small and medium enterprises from Romania are not sufficiently prepared to answer of their mission as economic engine, the lack of competitiveness is caused, for the most part, of their inadequance situations to European standards, because of their inability to access the financial sources for investments in new technologies and the implementation of system quality or they benefit of consulting services which they should offer an adequate market orientation.

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