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# MECHANISMS THAT DEFINE COMPETITION TODAY

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*Антонина Козак. Механизмы, определяющие конкурентоспособность на современном этапе/*

Рассматривается внедрение логисти-ческого подхода, ускоренного развития и распространения таких новых знаний, как ключе-вые инновации, определяющие рыночную конку-рентоспособность, являясь источником конку-рентного преимущества в современных условиях глобализированного производства.

*Ключевые слова:* производство новых знаний, конкурентоспособность, продленные во времени инновации, конкуренция секторов промыш-ленности, глобальная экономика

*Антоніна Козак. Механізми, що визначають конкурентоспроможність на сучасному етапі.*

Розглядається впровадження логістичного підходу, прискореного розвитку та поширення таких нових знань, як ключові інновації, що визначають ринкову конкурентоспроможність, виступаючи в якості джерела конкурентної переваги за сучасних умов глобалізованого виробництва.

*Ключові слова:* створення нових знань, конкурентоспроможність, тривалі інновації, конкуренція промислових секторів, глобальна економіка

*Antonina Kozak. Mechanisms that define competition today*

The article refers to implementing the logistic approach, rapid development and dissemination of new knowledge as key innovations defining the characteristic of market competition and the main source of competitive advantage in today's environment of global production networks.

*Key words:* Production of new knowledge, competitiveness, continuous innovation, inter-sectoral competition, logistics, global economy

The process of reforming Ukraine's economy and its integration into world economic relations was accompanied by a number of negative structural changes that did not contribute to increased effectiveness of participation in the international division of labor. In the current context of globalization and internationalization of economic relations, foreign trade enterprises not only play a progressive role when it provides part of the country in the international division of labor and contributes to increasing competition in the domestic and world markets, but also form a threat to the economic security of countries that take measures to integrate the world economy, using competitive advantage based solely on low cost of resources used in production. And these benefits, as shown by international experience, is extremely volatile.

Competitiveness used to be based (to a greater degree) on static comparative advantage (like cheap labor force for example) . Today, competitiveness does not just depend on the cost of factors of production, or on a specific technological advantage. Rather, it depends on continuous innovation, high level skills and learning, an efficient communications and transport infrastructure, and a supportive enabling environment.

In this context of rapid development and dissemination of new knowledge, innovation is becoming a more critical element of competitiveness. Firms have to be constantly innovating to avoid falling behind. This does not necessarily mean that they have to be moving the technological frontier forward. Only the most advanced firms do that. However, all firms need to be at least fast imitators and adopt, use and improve new technology in order not to fall behind. This puts a great deal of pressure on firms' technological capabilities. Moreover, innovation is not just a matter of new products or new processes and ways to produce them, but also better organization and management techniques, and better business models which facilitate doing business. An example of what is essentially a very simple innovation is containerized cargo, which has greatly facilitated shipping manufactured products and dramatically cut down freight costs. An example of business innovation is the development of consumer product companies such as Dell, which subcontract production according to their design and specifications to third parties, eliminate distributors,

and sell directly to the final consumer. Another example of a business innovation is Wal-Mart's monitoring of consumer demand from points of sale through electronic cash registers, linking that information to central ordering directly to producers all around the world, thereby eliminating intermediaries in production and distribution.

The implication of this for companies is that they have to make greater efforts to keep up with new technologies and new forms of business organization and production and distribution networks. This requires more investment in their technological capability to search for, acquire and adapt technology to their needs and in managing production and distribution systems. For those that are closer to the frontier, it means that they need to put more effort into real cutting edge innovations in technology and business.

Technological advance is very complementary with higher skills and more education. As a result, education and skills are becoming more important in international competitiveness. MNCs make their location decisions partly based on the education and skills of the local workforces. This means that countries need to make more investments on increasing education and skills. Globally, there has been an increase in average educational attainment. There has been a strong increase in the number of persons with higher education. Because of the knowledge revolution, there is a need for people to learn a diverse range of new skills.

This implies that developing countries need not only to expand primary education, but that they also need to expand the access and quality of secondary and tertiary education. They also have to make more effective use of distance education technologies, particularly the potential of internet based education and training services which can be delivered anywhere, anytime at any pace.

Logistics, transportation, and distribution becoming more important. In this new context of increased globalisation, rapid technical change, and shorter product life cycles, modular production and outsourcing, and the need to get components and products to the customer quickly, logistics (transportation, distribution channels, and warehousing), which connects manufacturing and retailing, is becoming another critical factor for competitiveness. Therefore, transportation infrastructure – roads, railroads, airports, seaports and transportation companies, with coordination enabled by IT – is critical for countries to participate effectively in the global market. The implication of this for many developing countries is that, even if they can produce competitively, it may still be very difficult for them to get into global value chains because of high transport costs. Typically, developing countries have very poor transportation infrastructure. In addition, they frequently do not have the volume to warrant bulk transport systems nor the frequency of service required to make the transportation costs competitive. This works against small countries far from the main markets. Most countries in Africa have very poor shipping or air links with the rest of the world, and few of these have direct links with key markets. This means that there are usually many stops and several transhipments before products get to their final destination. This increases both transportation costs as well as the inventory costs for goods in transit.

Part of the cost advantage of China is not just low wages and that it has over 200 million underemployed workers in agriculture that can be brought into industrial production, but that it has developed large scale and low cost transportation infrastructure. Combined with frequent shipping and air service to major world markets, it can place its goods virtually anywhere, for a fraction of the costs of most other developing countries.

Information technology is becoming a fundamental enabling infrastructure of the new competitive regime. «Supply chain management requires speed across global space to accomplish what a factory accomplished internally with the assembly line. Information and communications technologies (ICT) are the tools that allow flexible accumulation to function». ICT is a critical part of what enables the organization and coordination of global production networks and the integration of global supply chains. It is also an essential element for monitoring what the consumers are buying and what they want, and passing that information seamlessly along to producing units which often are not even owned by brand name manufacturers. This real-time information on the changing needs of the market, indeed even direct interaction with the consumer (as in the examples of made to order computers or automobiles), as well as internal electronic exchange and management between different departments and division within firms and among firms, their suppliers and distributors, are becoming essential new ingredients of the global economy.

There are several implications for developing countries. At the national level, there needs to be modern and low cost communication systems as well as good training in the skills necessary to use these networks. At the level of the firm, investments in training and hardware as well as in restructuring business processes are also necessary in order to take advantage of the reduction in transactions costs and time that can be obtained through these technologies.

The enabling environment consists of the government regulations and institutions that facilitate the operation of business and the economy. It includes the basic institutions such as government, rule of law, efficiency of capital and labor markets, ease of setting up or shutting down business. It also includes the ability of the government to create consensus and the ability to help people who fall through the cracks in the system.

Some other factors that have changed the mechanism of competition are:

1. Changing the key factors through which competitive advantages are achieved. Traditional sources of competitive advantages such as low labor costs, availability of raw material production factors

began to lose its value. New technologies lead to a permanent reduction in the share of direct labor costs in total costs. According to D. Bell «in the postindustrial economy among the limiting factors are not land, labor or capital, but information, whereby the economic and political power concentrated in the hands of its producers».

2. More complicated mechanism of international competition as a result of the deeper international division of labor. Internationalization of all stages of the reproductive cycle, enhances the international division of labor.

3. Creation and coordination of global production systems and networks. Today dominates the competition not between individual companies but between entire systems - clustering, business networks of firms. At the micro-level cooperation is manifested in the implementation of contractual forms of investment (licensed manufacturing, franchising, contracting manufacturing), creation of joint ventures. Recently become widespread strategic alliances - trusting long-term mutually beneficial relationships between companies, allowing each of them and ensure long-term goals, coordinate and optimize the use of common resources and minimize transaction costs.

4. Strengthening inter-sectoral competition. Today there is a significant intensification of inter-sectoral competition between firms for access to natural resources, capital, labor on a planetary scale. With five hundred largest multinationals, no more than 6% work in one field. For example, the oil multinationals have become consumer complexes with a large proportion of chemical production. In turn, chemical multinationals launched operations in metallurgy, machine building, textile industry and other industries.

5. Short cycles of development and sales. Global competition is forcing to reduce production costs and time for development and marketing of new products - on the one hand, and on the other - constantly improve the quality of goods and services. R&D feature acceleration at the present stage of development of world economy is that, along with accelerated development cycles and developing new products to markets, their complexity is increased too, as evidenced by the study of American scientists.

Thus, the trends identified modification of the mechanism of competition show that innovation - the introduction in the production process of new technical knowledge and technology - have become a defining characteristic of market competition and the main source of competitive advantage in today's environment.

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