

JEL Classification:  
F63; O31; Q12; Q13

UDC  
330.341.424:001:631.11

DOI: 10.30857/2415-  
3206.2020.8

**FEATURES OF THE INFLUENCE OF THE  
MARKET ENVIRONMENT ON THE  
INNOVATIVE DEVELOPMENT OF  
AGRICULTURAL ENTERPRISES**

**L. HANUSHCHAK-YEFIMENKO<sup>1</sup>**

<sup>1</sup> *Kyiv National University of Technologies and  
Design, Ukraine.*

**Introduction.** Research and analysis of the theoretical foundations allowed to determine the relationship between scientific and technological progress, innovation processes in the economy. The dominant role in economic development is played by scientific and technological progress, the core of which is innovation. The variety of types, forms and definitions of innovations necessitates the study of the essence of innovative development of agricultural enterprises, their main features and role in a market economy.

**The hypothesis** of the research is to substantiate the recommendations and proposals for improving the efficiency of innovation of agricultural enterprises as a priority sector, taking into account the European integration vector of the state.

**The purpose** of the study is to substantiate the peculiarities of the influence of the market environment on the innovative development of agricultural enterprises.

**The methodology** of scientific research is general and special research methods: dialectical – for analysis and understanding of the essence and content of the categorical series "innovation", "innovation process", monographic – in highlighting the views of scientists on the research issues; strategic analysis – to determine the priority areas

for intensifying the innovative development of agricultural enterprises.

**Conclusions and prospects** for further research. Based on the concept of growth cycles, it can be concluded that in a market environment, the organization of innovation is associated with the division and cooperation of labor, providing the necessary resources, selection and implementation of procedures for effective implementation of the innovation cycle. Therefore, the peculiarities of the influence of the market environment on the innovative development of agricultural enterprises, in our opinion, should be considered in terms of innovation systems. Factors that create a favorable market environment that allows the surveyed enterprises to be able to make significant upgrades, determine the four attributes of the country: the conditions for the factors; state of demand; related and supporting industries; stable strategy and structure. They each and all together form the basis of the country's competitive advantages, the space that each state creates and maintains for its industries.

**Keywords:** innovations; innovative development; competitiveness; innovation cycle; agricultural enterprises.

<b>NUMBER OF REFERENCES</b> 10	<b>NUMBER OF FIGURES</b> 1	<b>NUMBER OF TABLES</b> 0
---------------------------------------	-----------------------------------	----------------------------------

JEL Classification:  
F63; O31; Q12; Q13

УДК  
330.341.424:001:631.11

DOI: 10.30857/2415-  
3206.2020.8

## ОСОБЛИВОСТІ ВПЛИВУ РИНКОВОГО СЕРЕДОВИЩА НА ІННОВАЦІЙНИЙ РОЗВИТОК СІЛЬСЬКОГОСПОДАРСЬКИХ ПІДПРИЄМСТВ

Л. ГАНУЩАК-ЄФІМЕНКО<sup>1</sup>

<sup>1</sup> Київський національний університет технологій  
та дизайну, Україна.

**Вступ.** Дослідження і аналіз теоретичних основ дозволили визначити взаємозв'язок науково-технічного прогресу, інноваційних процесів в економіці. Домінуючу роль в економічному розвитку відіграє науково-технічний прогрес, стрижнем якого виступає інновація. Різноманітність видів, форм і визначень інновацій обумовлює необхідність дослідження сутності інноваційного розвитку підприємств аграрної сфери, їхніх основних ознак і ролі в ринковій економіці.

**Гіпотеза наукового дослідження** полягає у обґрунтуванні рекомендацій та пропозицій щодо підвищення ефективності інноваційної діяльності підприємств аграрної сфери як пріоритетної галузі з врахуванням євроінтеграційного вектору держави.

**Метою дослідження** є обґрунтування особливостей впливу ринкового середовища на інноваційний розвиток підприємств аграрної сфери.

**Методологією наукового дослідження** є загальнонаукові та спеціальні методи дослідження: діалектичного – для аналізу та осмислення сутності і змісту категоріального ряду «інновація», «інноваційний процес», монографічного – при висвітленні поглядів науковців на досліджувану проблематику; стратегічного аналізу –

для визначення пріоритетних напрямків активізації інноваційного розвитку підприємств аграрної сфери.

**Висновки та перспективи подальших досліджень.** На основі концепції циклів зростання можна зробити висновки що в ринковому середовищі організація інноваційної діяльності пов'язана з розподілом і кооперацією праці, забезпеченням необхідними ресурсами, вибором і реалізацією процедур ефективного здійснення інноваційного циклу. Тому, особливості впливу ринкового середовища на інноваційний розвиток підприємств аграрної сфери, на наш погляд, слід розглядати з точки зору інноваційних систем. Чинники, які складають сприятливе ринкове середовище, що дозволяє досліджуваним підприємствам бути здатними до істотних оновлень, обумовлюють чотири атрибути країни: умови для факторів; стан попиту; поріднені і підтримуючі галузі; стійка стратегія і структура. Вони кожній окремо і всі разом складають основу конкурентних переваг країни, той простір, який кожна держава створює і підтримує для своїх галузей.

**Ключові слова:** інновації; інноваційний розвиток; конкурентоспроможність; інноваційний цикл; підприємства аграрної сфери.

**Problem statement.** The natural environment for the intensification of investment and innovation activities of agricultural enterprises is the real sector of the economy with appropriate legal, socio-economic regulators and infrastructure.

In the agricultural sector of Ukraine, the external environment of operation and development of enterprises does not fully meet the requirements of a market economy. As is known, for the most part, a characteristic feature of the current economic state of the national economy is the insensitivity of agricultural enterprises to innovation. Factors that hinder the innovative activity of agricultural enterprises in Ukraine can be divided into two main groups – economic and industrial.

Among the economic difficulties are insufficient cash flows, insufficient state financial support, significant and inflated cost of innovations, low solvent demand for new products, high economic risk, and so on. Among the most unfavorable production factors are the low innovative potential of agricultural enterprises, lack of information about new technologies, lack of information about markets, insufficient opportunities for cooperation with other enterprises and organizations, the outflow of qualified personnel and more.

**Analysis of recent research on the problem** of the market environment on the innovative development of agricultural enterprises is devoted to scientific works of such domestic and foreign researchers as O. Alimov, O. Amosha, Y. Bazhal, P. Belenky, V. Geets, N. Goncharova, O. Lapko, B. Malytsky, L. Fedulova, D. Chervanyov, T. Yefimenko, A. Pryhozhyn, N. Alter, D. Archibudzhi, D. Arthur, S. Baker, R. Burgelman, T. Burns, P. Drucker, M. Porter, R. Nelson, E. Roberts, D. Tees, M. Tushman, B. Twiss, S. Winter, S. Harrison and others. At the same time, the intensification of innovation activity of agricultural enterprises should be based on the generally accepted innovation theory, and not be replaced by various alternative concepts.

**The purpose of the study** is to substantiate the peculiarities of the influence of the market environment on the innovative development of agricultural enterprises.

**Presentation of the main material** In the modern world on the concentration of innovations the first places are occupied by the USA, Japan, China and others. According to M. Porter (2000), the competitiveness of a nation depends on the following factors: the ability of a particular nation's industry to innovate and modernize; the company's ability to achieve competitive advantage through innovation; known creation of competitive advantages through innovation; awareness that there is only one way to maintain the achieved competitive advantage – to constantly improve them; the presence of four attributes of competitive advantage "diamond rules".

Thus, M. Porter clearly correlates the competitive advantages of the company and its ability to conduct and implement innovations, ie to organize innovative business as a key factor in success in competition.

The author M. Porter studied the competitiveness of ten sufficiently influential countries in the world market: Britain, Germany, Denmark, Italy, Korea, Singapore, USA, Switzerland, Sweden and Japan. He questions the established explanations for the nation's competitiveness:

- macroeconomic (for example, low budget deficit and bank loan rate - in South Korea, the opposite);

- cheap local labor in export industries (not so in Germany, Sweden, Switzerland);

- surplus of natural resources (not so in Korea, Japan);

- government intervention in the economy (on the contrary in Italy and Taiwan). The only reasonable explanation for the competitiveness of individual nations is the presence in these countries of firms that have managed to use their distinctive advantages to create competitive advantages. The most promising method of achieving such benefits is innovation.

Once a company achieves a competitive advantage through innovation, it can only maintain it through continuous improvement. Almost any achievement can be repeated (Porter, 2000). Competitors will immediately and inevitably bypass any company that stops improving and implementing innovations. Sometimes the initial benefits, such as customer relationships, economies of scale in existing technologies, or the reliability of sales channels, are sufficient to allow an inert company to maintain its position for years or even decades. However, sooner or later more dynamic competitors will find ways to circumvent these advantages based on their innovations. There are factors that make up a favorable market environment that allows companies to be able to make significant upgrades. These are the four attributes of the country, the attributes that each and all together form the basis of the country's competitive advantages, the space that each state creates and maintains for its industries. Here are the attributes:

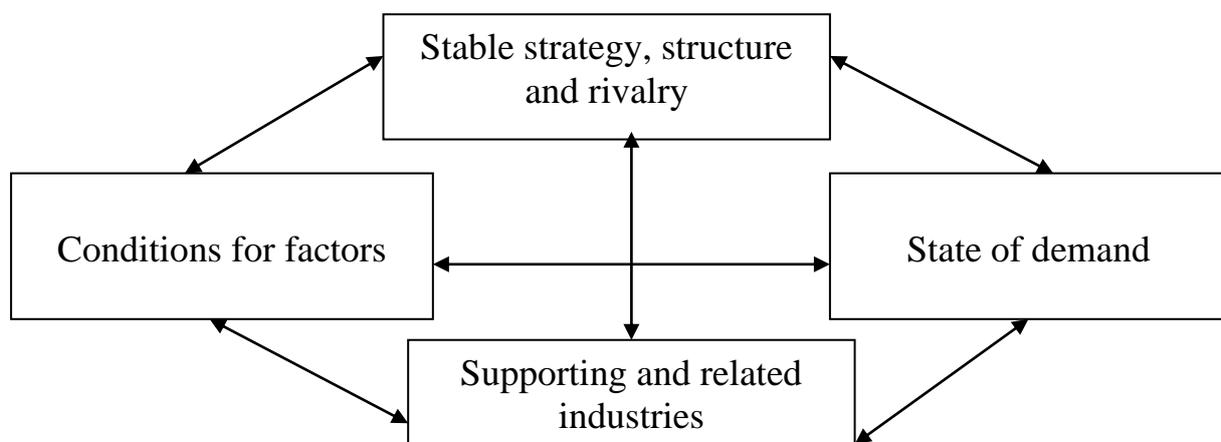
- 1) conditions for factors. The country's position in factors of production, such as the availability of skilled labor, or infrastructure, to compete in this area;

- 2) the state of demand. The nature of domestic demand for an industry product or service;

- 3) related and supporting industries. The presence or absence in the country of supplier industries or other supporting industries that are competitive internationally;

- 4) stable strategy and structure. The existing conditions in the country for the creation, organization and management of companies, as well as the nature of internal competition. These factors determine the emergence of a national

environment in which companies are born and learn to compete (Fig. 1). Each of the vertices of the diamond shown in the figure – and the whole of it as a whole – illustrates the components for success in competition: the availability of resources and skilled labor are necessary to ensure a competitive advantage in the industry; information that shapes the opportunities that companies experience and the areas in which they use their resources and employee skills; the purpose of owners, managers and individual employees; and, importantly, the pressure that a company experiences that forces it to invest and innovate (Porter, 2000).



*Fig. 1. Rhombus M. Porter*

Each of these four components of success determines the appropriate place on the diamond of competitive advantage of the country; the action of one of the components often depends on the condition of the other three. In general, a weak position in any of the components limits the ability of this industry to progress and renew.

However, the positions in the rhombus also have the properties of mutual reinforcement; they make up the system. Two elements, internal competition and geographical concentration, are particularly strong in the transformation of the rhombus into a single system – internal competition due to the fact that it stimulates improvement in all other key positions, and geographical concentration – due to the emergence and strengthening of interaction between the four factors. Another effect of the systemic nature of the rhombus is that countries rarely have only one competitive industry; the rhombus rule forms an environment that supports clusters of competitive industries. Competitive industries are not scattered in the economy unsystematically – they are usually connected to each other by vertical (buyer – seller) or horizontal (general consumers, technology, channels) links. Such groups do not disperse physically: they tend to concentrate geographically. One competitive industry helps the

emergence of another in the process of mutual strengthening. Once the cluster is formed, there is mutual support for all industries in the group. The benefits extend forward, backward and horizontally. Aggressive competition in one industry extends to other industries within the cluster – through technology transfer, market position development and diversification of existing companies. Market entry from other industries in the middle of the cluster accelerates modernization, stimulating research approaches and promoting the introduction of new strategies and skills. Through the channels of suppliers and consumers, in contact with many competing companies, there is a free dissemination of information and innovation. The benefits of clusters in innovation and productivity growth over an isolated location may be more important than the benefits in current performance. Firms in the cluster are often able to respond more adequately and quickly to customer needs.

Participation in the cluster also provides benefits in accessing new technologies or methods of work.

Agricultural enterprises in the cluster quickly learn about advances in technology, the availability of new components and equipment, new concepts in service and marketing, etc. Cluster membership makes it possible to directly monitor the activities of other enterprises. In contrast, an isolated firm has worse access to information and is forced to pay more; it also has a growing need to allocate resources to achieve new knowledge within its own structure. The potential advantages of clusters of agricultural enterprises in creating opportunities for innovation are very large. The company within the cluster is much faster to find sources for new components, services, equipment, as well as the elements necessary for the introduction of innovations, regardless of what these elements are – a new production line, a new process or a new supply model.

These and other innovation-driven benefits are exacerbated by direct pressures – competitive pressures, equalization pressures, and ongoing comparisons. The similarity of the main environment in which firms exist (for example, the cost of labor, similar aids), together with the presence of a large number of competitors, forces them to be creative in the question of their difference. M. Porter's fundamental work and his theory of innovation clusters became the theoretical basis for further applied research. Thus, based on the theory of clusters, the concept of growth cycles appeared, which allows a new look at the dynamics of competition in the modern market environment, and calls into question the classical economic theory of marginal cost (Porter, 2000).

This concept states that large companies that are developing aggressively and have a competitive advantage of innovation, face, above all, the problem of maintaining their growth and the smooth operation of the innovation pipeline. The results of many applied studies suggest that large companies are creating

new markets in which there are virtually no rivals, and are able to maintain a competitive advantage for a long time.

This is a paradox in terms of classical microeconomics, which argues that it is impossible to constantly achieve outstanding results. The situation is the same with traditional strategic schemes: they are not very useful in understanding the dynamics of new markets and ways of their active formation by companies to ensure their own advantage. The existence of industries with ever-increasing profitability refutes the traditional view that industry markets are quick to respond to declining profitability in the struggle of companies for access to limited resources. The stronger the competition, the faster the return on additional investment decreases. Firms will soon reduce their investments to a level that allows them to receive average industry profits, after which the structure of the industry will stabilize. However, in industries with ever-increasing profitability, the return on additional investment does not decrease, but increases. Some companies continue to increase investment, their profitability is growing, and as a result, one or two firms dominate the market, while others can not withstand the investment race.

**Research Findings and Prospects.** In today's knowledge-based global economy, there are many markets in which growing profitability has played a significant role for a long time. First, if competing companies are unable to provide the same scale of investment in innovation, the increase in profitability of individual firms can continue long enough, which determines the results of the industry as a whole.

Secondly, the marginal cost of production of many knowledge-based goods is zero, and in such cases, obtaining additional market share leads to a disproportionately large increase in profits. Third, profitability is rising periodically around the world as companies seek to benefit from the globalization of the economy and enter more and more large-scale regional markets. An efficient market environment allows for the mobilization of significant funds and maintain the smooth functioning of the financial source.

Based on the theory of innovation clusters and the concept of growth cycles, we can conclude that in a market environment, the organization of innovation in agricultural enterprises is associated with the distribution and cooperation of labor, providing the necessary resources, selection and implementation of procedures for effective innovation cycle.

#### **References:**

- Ansoff, I. (2004). *Strategicheskoe upravlenie* [Strategic management]. Translation from English. Scientific edition and author's foreword by L.I. Evenko. Moscow: Ekonomika. 489 p. [in Russian].
- Ivanov, Iu.V. (2001). *Sliianiiia, pogloshcheniia i razdelenie kompanii: strategiia i taktika transformatsii biznesa* [Mergers, Acquisitions and Divestitures: Strategies and Tactics for Business Transformation]. Moscow: Alpina Publisher. 244 p. [in Russian].

- Dodgson, M., Rothwell, R. (Eds.). (2001). Handbook of Industrial Innovation. Edward Elgar Publishing. Incorporated.
- Porter, M. (1993). Mezhdunarodnaia konkurentciia [International competition]. Moscow: Mezhdunarodnye otnosheniia. 580 p. [in Russian].
- Porter, M.E. (1998). Clusters and the New Economics of Competition. *Harvard Business Review*. November-December. P. 77–90.
- Posibnyk z klasternoho rozvytku [Handbook of cluster development]. Retrieved from: [www.sme.ukraine-inform.org.ua](http://www.sme.ukraine-inform.org.ua) [in Ukrainian].
- Tcikhhan, T.V. (2003). Klasternaia teoriia ekonomicheskogo razvitiia [Cluster theory of economic development]. *Teoriia i praktika upravleniia = Management theory and practice*, No. 5, P. 74—81 [in Russian].
- Porter, M.E. (2000). Konkurentciia [Competition]. Kyiv: Williams [in Russian].
- Burgelman, R.A., Maidigue, M.A. (2004). Strategic Management of Technology and Innovation. Homewood, Illinois. IRWIN.
- Cardoza, G. (2003). Learning and innovation paths in East Asia. *Science and Public Policy*, 2003, August.

#### AUTHOR (S) BIOSKETCHES



*Hanushchak-Yefimenko Liudmyla*, Doctor of Economics, Professor, Vice-Rector for Research and Innovation, Kyiv National University of Technologies and Design, Ukraine.

<https://orcid.org/0000-0002-4458-2984>

Scopus Author ID: 35758920800

Researcher ID: Q-2309-2016

E-mail: [glm5@ukr.net](mailto:glm5@ukr.net)

#### COPYRIGHTS

©2020 The author(s). This is an open access article distributed under the terms of the Creative Commons Attribution (CC BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, as long as the original authors and source are cited. No permission is required from the authors or the publishers.

#### HOW TO CITE THIS ARTICLE

Hanushchak-Yefimenko, L. (2020). Features of the influence of the market environment on the innovative development of agricultural enterprises. *Management*, 2(32): 111–118. <https://doi.org/10.30857/2415-3206.2020.2.8>.