

Theoretical Aspect of Development of Market Environment in Grain Farming

Sergey Aleksandrovich Zhidkov

Michurinsk State Agrarian University, Internatsionalnaya Str., 101, 393760, Michurinsk, Russia

Abstract

The purpose of the study is to develop theoretical provisions for development of the market environment in grain economy. During the research, the following methods were used: observation, logical representation, functional analysis, synthesis and scientific abstraction. The article considers the problem of formation of market environment in the grain economy, including in conditions of cyclical economic development. The economic space is a system of relations for placement of many economic entities on the territory, formation of scientifically based forms of their integration and the organization of interaction between them. It includes the environment for implementation of economic ties, including market relations. The market environment covers all spheres of the national economy of a country, experiencing the overlapping of specifics of each of the branches that make up its structure while preserving its universal attributes. With regard to its functioning, it is important to emphasize that within the framework of any market it is concretized by a limited set of rules (institutions) operating in the certain branch of national economy. This, on the one hand, imposes specific features of market relations in each technological chain of food subcomplexes of agro-industrial complex, and on the other, unifies the principles of organization of interaction in them. The market environment of the grain economy develops under general economic conditions and is subject to the effects of those economic trends that develop at the macroeconomic level. At present, they include: 1) adjustment of prices for raw materials (downward) and agricultural products (upward) in world markets; 2) volatility and cheaper national currency; 3) rejection of direct economic protectionism in relation to the productive sphere of national economy (this is one of the mandatory conditions of the World Trade Organization). Studying the theoretical positions of the existence of the market environment allowed concluding about its dualism: it is simultaneously a catalyst for development and its result. In general, market environment in the grain economy, forming economic ties between economic entities of related sectors of the economy, although it unites the grain market into a single whole, its heterogeneity requires the need for adjusting the interaction between them, especially in determining the proportions of distribution of the final cost of the product. In this regard, there is an objective need to influence the market from outside and within (from the side of the participants) in order to ensure fairness of the rules of management, the safety of existence and internal stability of all parties involved.

Keywords: External environment; organizational potential of the market; Cluster; Grain economy, Market environment; Grain market; Organizational and economic mechanism.



CC BY: [Creative Commons Attribution License 4.0](https://creativecommons.org/licenses/by/4.0/)

1. Introduction

The presence of high economic potential in market relations was emphasized by many economists. This, first of all, is connected with the possibilities of implementing entrepreneurial initiatives in the organization of economic interaction in the cross-sectoral sphere. However, practice has shown the excessive simplicity of interpretation of provisions of the economic theory of the market. With the problem of low level of received effect in comparison with the volume of capital involved for its obtaining, all branches of the national economy of the country collided. Within the agro-industrial complex of Russia, there are 10 food chains, so-called farms (grain, vegetable growing, dairy and others), which include resource-producing, agrarian and commodity-supporting structures. In scientific research a farm is treated as 1) a subject of economic activity; 2) a complex of elements of reproduction process; 3) a set of commodity producers specialized in creating the final product. But, unfortunately, scientific papers do not emphasize the existing types of economic relations that arise between participants in economic food subcomplexes, including grain crops. They form the main part of environmental factors of influence on the success of functioning of economic entities. At present, one should talk about the existence of external and internal market environments for the functioning of grain-complex organizations. The latter is involved in the structure of the former and has dynamically changing boundaries. This is determined by the strength of action of barriers, both the economic and administrative ones. Due to the fact that macroeconomic factors of the external environment in the economy exert systemic influence on each other and economic entities regardless of their sectoral affiliation, both narrowing and expanding of economic activity space occur. First of all, it affects the so-called market environment, which includes all business entities.

2. Methods

The applied methods of economic research made it possible to identify and prove the existence of the market environment of economic entities. These include the method of observation, logical representation, functional analysis, synthesis and scientific abstraction.

3. Results and Discussion

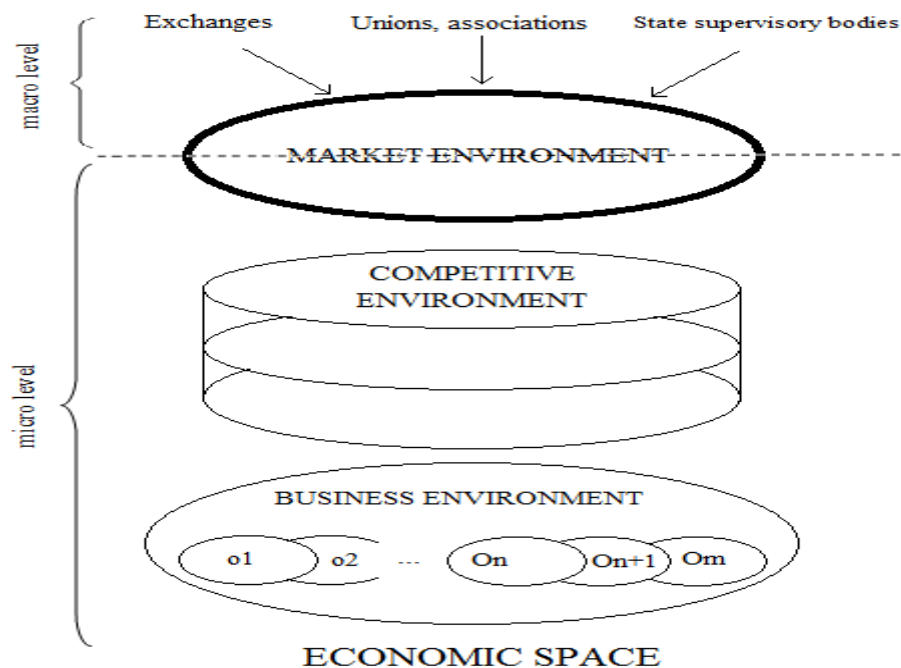
In the theory of management, the definition of "external environment" has settled. It is understood as the totality of economic, political, scientific and technical, natural-geographical, social and other conditions that affect the functioning and development of economic systems from outside and having a diverse impact (direct, indirect) (Agafonova, 2007); (Tukhvatulina, 2013). The division of the external environment into macro and micro levels makes it possible to differentiate the economic space by the criterion of the direction of the impact. In fact, a micro level, which includes suppliers, buyers, competitors, economic entities, representing the infrastructure sector of economy, financial and credit services organizations, state and municipal institutions, forms the business environment that encompasses all subjects of relationships. The links between them (both actual and potential) within the commodity-money flow of resources and products create a field of market environment. Thus, business environment at the first stage of formation of market environment has the primary origin; at the second - the indirect influence of economic interests of economic entities determines the quantitative and qualitative characteristics of ties in the economic field; at the third stage, when economic ties become stable, business environment becomes only the background of practical activity. In the scientific context, one should speak about the allocation of horizontal (including the role groups of participants in the economic field) and vertical (based on the branch and economic tiers of the organization of economic relationships and relations) planes of micro level of the external environment of production units of the economy.

The economic space is a system of relations for the placement of many economic entities on the territory, the formation of scientifically based forms of their integration and organization of interaction between them. It includes the environment for implementation of economic ties, including market relations.

The market environment is a system of ties that is formed in the field of management between its constituent entities (state, business organizations, households), with the purpose of forming, maintaining and developing interaction between them aimed at satisfying social and economic interests, as well as incrementing the operation potentials for the resource ensuring the achievement of strategic prospects for each of them through establishing equilibrium between supply and demand of particular product (in this case grain).

The author considers it possible to single out one more element of the external environment of managing - the market environment. In fact, it consists of three layers, which determine the existence of each of them: 1) business environment of the organization (regardless of industry); 2) sectoral market environment; 3) macroeconomic market environment formed by mega-instruments of the scale of the Central Bank of Russia, etc. The sectoral market environment represents the sum of connections formed both at intra- and inter-branch levels of the national economy within the business environment of each that is within the scope of the research of production unit. The macroeconomic market environment is created to implement the overall socio-economic policy of the country and is based on the principles of seeing the most effective model for organizing the national economy. Schematically, the formation of the market environment in the economic space is shown in Figure 1.

Figure-1. Formation of market environment in economic space



The competitive environment formed both at the input of production system (between resource suppliers) and at its outlet (between sellers of the final product-commodity), has great importance in the formation of the market environment in the economic space of the country and any subcomplex of the national economy. In the context of

modern ideas about the economic structure of national economy, it represents, on the one hand, the framework conditions for functioning of economic entities "in accordance with the rules of fair competition" in the process of fighting for the advantage of participation in exchange operations [Danilov and E. \(2010\)](#); [Kovalenko \(2010\)](#); [Rau \(2013\)](#); and on the other - a set of potential economic ties that may arise between them in relation to acquisition of resources, creation of a new product, its promotion to consumer and which contribute to the acquisition of additional benefits or strengthen market positions. The real competitive environment is formed at the micro level of economic functioning, nominal - it is created and maintained by legislation at the macro level.

The market environment covers all spheres of the national economy of the country, experiencing the overlapping of specifics of each of the branches that make up its structure while preserving its universal attributes. These include:

- existence of a form of market economy of development carried out under the influence of the aggregate effect of demand, supply, price and competition;
- priority of socio-economic goals over the purely economic ones to form the balance of domestic sources of resources to ensure the sustainable and progressive development of the country;
- advantage of realizing public interests over individual in the process of forming capital funds in the distribution of the value of final product created in the national economy of the country;
- availability of mechanisms for "soft" regulation of market mechanisms by the state.

One of strategically important for the livelihood of the population of the country is the agro-industrial complex, along with other spheres of the economy involved in market conditions of management. The following are common features of the market environment in Russia's agro-industrial complex:

- high economic activity of business entities, regardless of organizational and legal form, size of the organization, the scope of activity;
- multistrukture of the economy, which allows ensuring the evolutionary development of modern forms of ownership and management;
- possibility of self-employment in business (mainly developed in agriculture);
- combination of small, medium and large-scale activities specialized in different types of agribusiness activities.

With regard to the market environment of functioning, it is important to emphasize that within any market it is concretized by a limited set of rules (institutions) operating in a certain branch of the national economy ([Zhidkov, 2006](#)). This, on the one hand, imposes specific features of market relations in each technological chain of food subcomplexes of the agro-industrial complex, and on the other - unifies the principles of organization of interaction in them (Table 1).

Table-1. Some features of market relations in food subcomplexes of agro-industrial complex*

Product subcomplex of agro-industrial complex	Features of the organization of interbranch economic relations on market principles
Grain (cereal products)	- protection against market fluctuations in prices of sales; - possibility of long-term storage of grain; - high export potential; - breadth of directions of grain use.
Potato products	- moment of realization coincides with the moment of harvesting; - possibility of limited storage; - stability of demand (potatoes - traditional (basic) food product of population of Russia); - wide range of sellers of small lots (up to 2 tons).
Beet Sugar	- limited monopsony; - stability of demand for final products (sugar); - possibility of diversifying sugar purchasing channels; - limited market capacity.
Oil and fat	- sharp competition in the market of agricultural raw materials and oil; - reference to domestic consumption; - narrow direction of use of oilseeds; - possibility of limited storage.
Fruit and vegetable canning	- price segmentation of the market; - limited availability of raw materials; - possibility of limited storage of part of the harvest of fruits and vegetables; - wide range of finished products.
Vodka and winery	- strict state regulation; - insufficiency of domestic grape raw materials base; - high capacity of wine and vodka market; - Lack of storage of raw materials and need for long-term aging of wines and cognacs.
Meat	- imbalance in types of meat and territory of the country;

	<ul style="list-style-type: none"> - potential to increase actual market capacity; - emphasis on quality characteristics of meat; - clear portrait of the consumer does not exist.
Dairy	<ul style="list-style-type: none"> - disorganization of raw zones; - high degree of competition in the market of agricultural raw materials and finished products; - high market capacity; - lack of storage.

* Developed by the author

Among the principles of organization of interaction of economic entities in the food market are:

- partnership;
- permanent interaction;
- interdependence;
- economic interest;
- maximum involvement.

Analysis of Table 1 shows that market environments formed in different food markets are characterized by varying degrees of dynamism and stability. The least resistant from these points of view are vodka and winery and dairy markets, the most - grain. However, there are also a number of problems affecting the process of forming the optimal market environment. First of all, the limited value of final product of the grain economy and economic protection of the agrarian sector of the economy involved in production of grain and consumers of bread and bakery products narrows the field of financial maneuver in establishing inequitable distribution proportions of participants in the spheres of storage, processing and trade that overestimate the profitability of their activities. In these conditions, the most vulnerable point of grain-derived subcomplex is made by bread-baking plants. The limitation of their solvency, on the one hand, and the socially necessary product they produce, on the other, form an economic contradiction in the market environment of the grain economy.

The second not less important problem of the market environment of the grain economy is accumulated debt obligations of its participants, diverting financial resources for servicing loans and borrowings from the productive sphere of activity. Here, it is necessary to allocate borrowed funds attracted for 1) servicing current activities to provide resources purchased at inflated prices and tariffs; 2) implementation of innovation and investment development projects. If the first group of loans arose due to the accumulated disparity of prices for agricultural products and consumed resources created in industry and fuel and energy complex, and, in fact, is unproductive, the second group, on the contrary, is productive in nature, since it involves financing activities aimed at increase of efficiency of activity. For example, in agriculture, in order to buy 1 ton of diesel fuel in 1991, it was required to sell 0.4 tons of grain, in 2001 - 2.5 tons, in 2011 - 4.1 tons, in 2015 - 2.9 tons. Load for 1 combine harvester in 1991 was 152 hectares of grain crops, in 2001 - 212 hectares, in 2011 - 354 hectares, in 2015 - 422 hectares. In relation to the normative value for this parameter, the excess in 1991 was 108.1%, in 2015 - 3.5 times. The updating of the fixed capital of grain production is not going on actively. In 2015, the value of this indicator was 5.3% for harvesters, 3.9% for cultivators, 3.9% for sowing equipment. Comparing them with standard values (for example, 14% harvesters, cultivators - 8.3%) allows concluding that the fleet of specialized machinery and equipment of the industry will grow older. The reason for this is the unjustified withdrawal of capital from the agrarian sector over the past 20 years, and in general, the imbalance in the market environment of the grain market (the author's calculations based on the data of the Single Interdepartmental Information and Statistical System (SISS)).

At present, the market environment of the grain market faces the monopoly of transport infrastructure actors, namely, economic difficulties arise when the grain mass is transported over long distances and, above all, by rail. Thus, the rise in the cost of grain when exported for export at the expense of transport costs alone is on the order of 23-25% (on average for 2013-2015) (Delz, 2011); (Mitko, 2015); (Rau, 2013). The presence of grain receiving points, transshipment sites, the specialized rolling stock is at the stage of supply deficit, despite the existing state control over the use of the property of transport companies and ports. This becomes a deterrent to increasing in export trade operations in the grain market, which narrows the market environment of the agricultural sector of the economy (Zhidkov, 2011).

All of the above problems of the grain market development are exacerbated during the economic crisis in the country, and particularly the changes affect its market environment and subsequently affect the stability of financial situation of economic entities in it (Zhidkov, 2014).

The market environment of the grain economy develops under general economic conditions and is subject to the effects of those economic trends that develop at the macroeconomic level. At present, they include: 1) adjustment of prices for raw materials (downward) and agricultural output (upward) in world markets (Glazyev, 2016); (Guliyev and Musatafinov, 2015); (Minchenko and Galitsky, 2015). 2) volatility and cheaper national currency (Zayats and Volkov, 2014); (Zinisha and Khanzhyan, 2015); 3) rejection of direct economic protectionism in relation to productive sphere of national economy (this is one of the mandatory conditions of the World Trade Organization) (Naumkin, 2012). Many researchers affirm the existence of crisis phenomena in the Russian economy, without denying the need to support and develop market relations, and therefore, the market environment.

Within the framework of economic theory in the 20th century, the concept of cyclic development was formed, the founder of which was N.D. Kondratiev. Its provisions are elaborated in more detail and are the basis of the works of L. Aftalion, S.Yu. Glazyev, J. M. Keynes, G. Kleiner, S.S. Kuznets, V. Mayevsky, K. Marx, U. Mitchell, P.

Samuelson, J. Sisoni, I. Fisher, F. Hayek, A.L. Chizhevsky, E. Hansen, J. Hicks. These researchers identified various reasons for the onset of crises in the economic field and indicated the different frequency of their offensive, but were unanimous in the principled approach to justifying the dynamics of economic development. The history of the world and national economy proves the correctness of treatment of the cyclical principle of their development, and its imposition, in particular on the grain subcomplex of the agro-industrial complex of Russia, allows determining the degree of significance and level of manifestation of rules and norms for the formation of market environment in it (Table 2).

The crisis in the economy is a state that is contiguous with a critical situation that allows the inadequate behavior of market subjects with a high degree of probability and increase in the risk of loss of resources to the limiting size of their economic and financial "survival". In fact, crisis can provoke violations in the market environment, and maybe, on the contrary, it is caused by it. In both cases, there is a violation of reproductive processes and, as a consequence, decrease in efficiency of functioning of traditional economic systems. Deforming the market environment always leads to complication of transactions between participants and the rise in the price of the final product. In other words, the market environment can act as a "transfer mechanism" in the formation of crisis phenomena (1998, 2008, 2014), or perhaps their starting point (1991). G.B. Kleiner identified four stages of economic development in the cycle (Kleiner, 2011):

They are universal in nature, but they have a temporary specificity of manifestation. For example, with respect to the grain economy, one can talk about the crisis manifestation delayed for one season, which is determined by the gap between the time of investment and the receipt of products for the period of at least 6 months. However, the application of the methodology of discounting (or reducing) their value in relation to the single date did not reveal any significant economic benefits for the agricultural sector. But in the circumstances of tightening credit and fluctuating the deposit conditions of financial institutions in the direction of reducing bank interest, preserving capital in the commodity mass is the most appropriate direction for agricultural commodity producers. During the post-crisis phase of the economic cycle, the greatest impact on the economic state of micro level entities of the external environment of grain market is the losses that occur during the crisis and are primarily related to the financial and economic aspect of the activity. The restoration of the grain economy to the pre-crisis level may be prolonged, and the reduction of this period without external support of resource provision is usually impossible. The state acts as such a subject. But it is this condition, creating the precedent of team cooperation between it and agribusiness allows ensuring the stable development of the grain market in the future and smoothing out the severity of further changes in the grain economy and the market environment in it.

Table-2. Degree of significance and level of manifestation of the principles of functioning of market environment in the Russian grain economy in conditions of economic development cyclicity*

Stages of economic development	Crisis stage	Post-crisis stage	Stage of intensive development	Pre-crisis stage
Principles of market environment				
1. Significance level	secondary	derivative of depth of decline	primary	
2. Stability of grain market structure (subject preservation)	low		high	middle
3. Principle of market equality of economic entities	principle of solidarity	principle of team collaboration		principle of individual protection of interests
4. Level of economic balance of the market environment	low	middle	high	High with desire for imbalance
5. Time frame of manifestation	deferred	prolonged	moment	smoothed
6. Principle of the direction of changing the market environment	stable condition	number of participants increasing	stable condition	circle of participants is narrowing

* Developed by the author

Perceiving economic development as the expansion of a variety of opportunities for economic entities and increasing their production and resource potentials against the backdrop of increasing complexity and the results of their activities, it can be concluded that the market environment is one of the main factors determining qualitative transformations in the economic field of the country's economy.

Market environment of the grain market has a number of quality characteristics, including:

- stability - instability;
- simplicity - complexity;
- certainty - uncertainty;
- sensitivity - indifference.

Each of them is conditioned by other characteristics. Thus, stable demand for food on world markets is observed with respect to traditional food products produced without GMOs and excessive use of chemical additives (characteristic of simplicity), which adds certainty in forecasting the main market parameters for the future. This

reason was the basis for the high demand for Russian grain and Russia's largest share (15%) in the structure of grain sales in the context of exporting countries. In addition, the criterion of market sensitivity is largely determined by the price factor. The possibility of selling Russian grain at the high discount before October-November reduces the average annual export price by 29.2% compared to similar products in the United States and by 24.8% - France (2015) and forms additional competitive advantages of domestic agriculture on the global scale.

In many respects, this causes the search for a new equilibrium state in the period of price fluctuations and determines the increase in the degree of dynamism, and consequently, the sensitivity of the grain market. Such an acute seasonal dependence between the characteristics of the market environment is most characteristic of food markets.

Studying the theoretical positions of the existence of the market environment allowed concluding about its dualism: it is a catalyst for development and its result simultaneously.

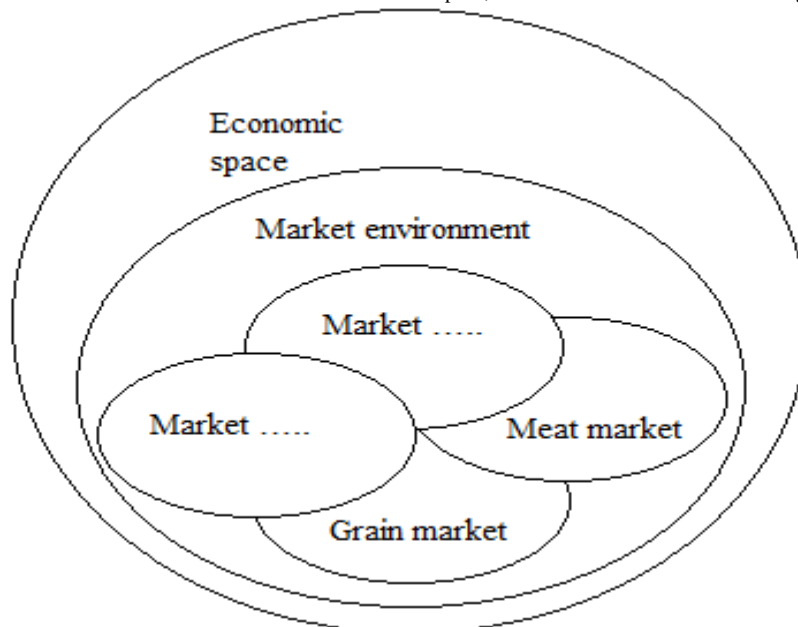
Having combined the specific characteristics of the functioning of the grain economy with theoretical provisions of the market environment, the author considers it advisable to perceive the market environment as a set of economic ties that arise and are subsequently supported by the economic interest of the interacting parties aimed at maximizing the effect of using grain raw materials. The "starting point" of formation of high effectiveness of its functioning is the observance of the condition for the need for expanded reproduction by all participants in eliminating the possibilities of unreasonably withdrawing the created surplus value of the final product at each subsequent stage of product movement.

For this, the limiting factor of growth in the opportunities for increasing the scale of activity in the grain market is of particular importance. For example, in agriculture, it is the maximum share of arable land, which can be allocated for the sowing of grain crops without risk of loss of soil fertility (for the Central Black Earth region of Russia this figure should not exceed 60%); for the sphere of grain storage - investment in the facilities of elevator economy, the total capacity of which should not exceed 1.2 times the average annual gross grain harvest; the transport component according to the capacity of rolling stock of grain carriers must correspond to the maximum parameters of volumes of transported goods along domestic and foreign routes, including the capacities of transshipment points of ports. The composition of elements of the grain economy is relatively stable and is determined by the economic feasibility of existence of each business unit (Martin, 2016).

The economic relations and connections between them are also subject to stochastic factor, but, experiencing its influence to a greater extent, they are capable of more flexible adaptive maneuver by changing only the nomenclature of interaction counterparts without affecting the deep transformations of organizational structure as a whole. This rule does not apply to the implementation of economic relations with the state. For example, in respect of compliance with tax discipline, there is a strict rule of paying taxes on time and in full. Otherwise, the levers of administrative responsibility come into force.

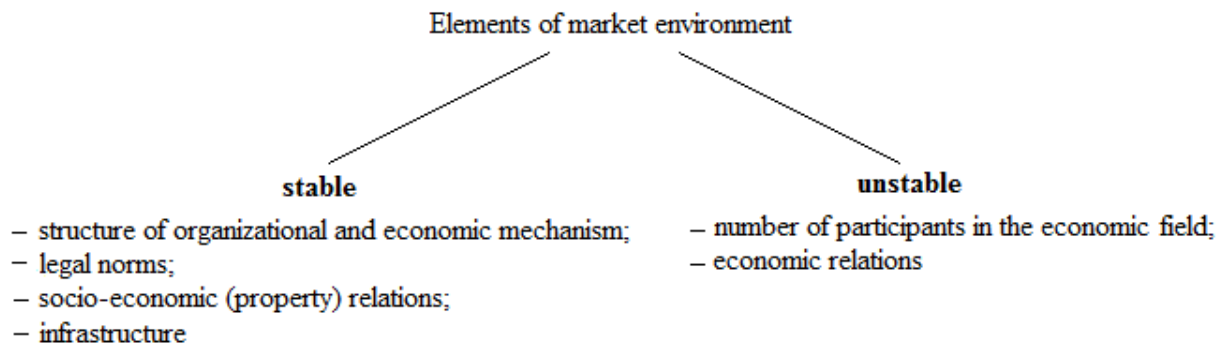
Figure 2 presents a diagram of the structural interconnection of economic space, the market environment and the grain market proper.

Figure-2. Scheme of structural interconnection of economic space, market environment and the actual grain market



In general, the author considers it necessary to distinguish two groups of elements of the market environment, systematized by us according to the criterion of stability of their manifestation in the economic space (Figure 3).

Figure-3. Elements of market environment



In this context, stability is seen by the author as the ability to maintain the constancy of the internal structure over time in order to ensure the sustainability of spatial stability due to reserves of flexibility in response to external influences. In the formula form, this can be presented as follows (1):

$$\left\{ \begin{array}{l} S_t \rightarrow \max, \\ \Delta(a_i - a_{i-1}) \rightarrow \min \end{array} \right. \dots\dots\dots(1)$$

where a_i is the state of the element of the market environment at the i-th time moment;
 S_t - level of stability of the market environment.

All these elements of the market environment are universal in nature, but at the same time, they are influenced by specifics of the branch of the national economy in which they originated. The author believes that the problem of the need to stabilize the market environment should be given close attention of the state through minimizing the administrative barriers to entry to the market of any commodity, including grain.

Thus, forming economic unity between the material objects of grain economy through the market environment, one faces with a complete formation - a grain market that has all the characteristics of system (goal-oriented, orderly elements and links between them, regulation of inputs and outputs, a set of priorities and criteria for assessing development effectiveness, possibility of separating subsystems) (Znamensky, 2016).

The goal of the grain market's goal orientation is to find such economic position of the overwhelming majority of its participants, which will be able to provide stable positions in the market in combination with an increment of potentials of both producers and consumers. If in relation to the former, one should speak of an increase in the proportion of their presence on trading floors and increase in the profitability of agribusiness, the second one is about meeting the requirements of processing plants in agricultural raw materials in full quality and saving costs when buying. Only in stable conditions for the realization of individual interests of participants can one talk about achieving the common goal that is of public scale. In this study, this is satisfaction in bread and bread products of the country's population. The greatest cumulative effect and, accordingly, the accelerated achievement of the set goal will be ensured with the minimization of product losses during its movement along the chain "production - storage - transportation - processing".

For example, at the expense of this source in 1990-2014 the grain market received an additional 1.3 million tons of this type of agricultural products annually, which amounted to about 0.1% of the gross grain harvest. From this, it follows that the orderliness of the elements and the links between them is one of the most important properties of the grain market.

In many respects, the completeness of the set of elements of economic entities that represent both the production sphere of the economy and trade is determined by factors of its conformity to the technology of growing grain crops, and also by the degree of its preservation in drying, refinement, transportation, storage proper processes. In other words, the orderliness of the elements and the tightness of the links between them determine the possibility of achieving a high level of efficiency in the functioning of the grain market as the system as a whole. The systemic representation of the grain market, in turn, requires emphasis on its species in the typology of systems. Being the economic macro subsystem, the grain market is open to influence from the outside. This applies to all types of flows, direct or indirect effects, and also regardless of the nature of occurrence (both material and informational). In addition to input parameters, there are output values, usually having normalized characteristics. They are strictly regulated and specialized. So, in the grain market, there is the order of attracting material resources, determined by time constraints (agrotechnical timing of agricultural work), use of information (the quality level depends on the qualifications of the staff), organization of movement of commodity mass (availability of logistics directions of relocation, transshipment points). In fact, the openness of the economic system, which is the grain market, is determined by an infinite number of inputs of various types of flows, and the degree of its isolation is the marginal rate of their internal processing and the adoption of adequate administrative decisions aimed at maximizing the return financial mass.

In other words, any economic system is aimed at obtaining the greatest value of profit or income from its activities. From this setting follows the need to determine the priorities for its development.

The author considers it necessary to rank the tasks of grain market development in terms of the importance of their solution in time. The author grouped them as follows:

- strategic tasks aimed at maintaining the best development conditions and assuming: 1) ensuring the proportionality of constituent elements of the market; 2) formation of economic mechanism that stimulates increase in effectiveness of interaction among participants in related industries of the agro-industrial complex; 3) increase in the structure of exports of grain and products of its processing share of products with high added value. In particular, strategic priorities in the grain market include expanding the infrastructure, increasing the export potential, increasing the capacity of the domestic market, increasing grain yields using selective achievements in mass production of grain and restoring soil fertility (Long-term strategy for development of grain complex of the Russian Federation for 2016-2025 and for the future until 2030. 2016, 2016`).
- tactical tasks aimed at implementing the strategy for development of the grain market at each point in time, taking into account the specific conditions and assuming: implementation of comprehensive program to combat major pests, diseases, as well as widespread quarantine grain crops in the Russian Federation; increase in the level of material and technical support for the grain production sector; decrease in volatility of internal market of grain and leguminous crops, including by improving the measures of state regulation and support (Zhidkov, 2017);
- operational tasks to solve problems arising in the current order. In the grain market, they are often associated with the need to adjust the price parameters of the exchange between the fuel and energy and agro-industrial complexes.

Progressive development of the grain market as an economic system is possible with sufficient resource supply to timely solve each of the emerging problems, as well as an integrated approach to financing measures to improve the sustainability of its functioning at each moment of time. In this regard, there is a no less important question about the criteria for assessing the effectiveness of development of the entire system and each of its constituent subsystems (Zhidkov, 2018).

The efficiency category shows the measure of the ratio of the result obtained to the costs of its production (or sale). One of the most informative indicators of business performance is its level of profitability. If its value in any industry or sphere of the national economy exceeds (100% + percentage of price growth), then it can be said about the effectiveness of the activity (Pilipuk, 2016).

The results of the study were discussed at the II International Scientific and Practical Conference "Social and Economic Problems of Food Security: Reality and Prospects" on March 30, 2017 (Michurinsk, March 30, 2017), international scientific and practical conference "Prospects for Development of Science and Education "(Tambov, December 30, 2017).

4. Conclusion

In general, the market environment in the grain economy, forming the economic ties between economic entities of related sectors of economy, although it unites the grain market into the single whole, its heterogeneity requires the need for adjusting the interaction between them, especially in determining the proportions of distribution of the final cost of the product. In this regard, there is an objective need to influence the market from outside and within it (from the side of participants) in order to ensure fairness of rules of management, the safety of existence and internal stability of all parties involved.

References

- Agafonova, M. S. (2007). Economic relations of the firm with various subjects. *Journal of Economic Theory*, 4: 162-63.
- Danilov, I. and E., V. (2010). Theoretical aspects of competition, Retrospective analysis and modern domestic and foreign interpretation. *Bulletin of Chelyabinsk State University*, 2: 122-27.
- Delz, S. (2011). Logistical approaches to evaluation of efficiency of logistics schemes for delivery of export grain. *Logistics*, 8: 44-46.
- Glazyev, S. Y. (2016). About strategy of modernization and development of the Russian economy in conditions of global depression. Available: http://www.glazev.ru/econom_polit/269/
- Guliyev, I. and Musatafinov, R. (2015). Review of forecasts of changes in the weighted average oil price. Scientific notes of petrozavodsk state university. *Social And Human Sciences*, 7(152): 113-14. Available: http://www.eurasiancommission.org/ru/Documents/APK_ing_n.pdf
- Kleiner, G. B. (2011). *Mesoeconomics of development*. Science: Moscow. 805.
- Kovalenko, A. I. (2010). On competition of theory of competition. *Contemporary Competition*, 6: 107-16.
- Long-term strategy for development of grain complex of the Russian Federation for 2016-2025 and for the future until 2030. 2016 (2016`). Available: http://www.mcx.ru/documents/file_document/v7_show/34595.133.htm/
- Martin, S. (2016). *Storage matters, Managing grain, securing finance, and building markets*. Waterloo, Ontario: Canada. 259.
- Minchenko, L. and Galitsky, S. (2015). Analysis of changes in the cost of nutrition in the Russian Federation. *Scientific journal of NIITMO. Series Economics and environmental management*, 1: 147-54.

- Mitko, O. A. (2015). Organizational and economic problems and prospects for development of transport and logistics process of grain market. News of higher educational institutions. *The Volga region. Social Sciences*, 2(34): 163-72.
- Naumkin, A. V. (2012). Improving the forms and methods of state support for agricultural development in the context of Russia's accession to the WTO. *Economics Of Agricultural And Processing Enterprises*, 3: 33-36.
- Pilipuk, A. V. (2016). Development of scientific theory of effective competition. *Contemporary competition*, 2(56): 46-81.
- Rau, V. V. (2013). Russia in the customs union, Agrarian aspect. *Problems of Forecasting*, 1: 102-11.
- Tukhvatulina, L. R. (2013). The concept of external environment in modern management. *Bulletin of Siberian Science*, 1(7): 207-12.
- Zayats, S. and Volkov, A. (2014). Modeling the dynamics of implied volatility of options. *Scientific Review, Economic Sciences*, 1: 104-05.
- Zhidkov, S. A. (2006). Recommendations for regulating the production and market of grain, Sugar, Beef, Pork, Poultry, Milk.; Monograph. Perm, Gnu vniiesh. 183.
- Zhidkov, S. A. (2011). Russian grain exports, State and development prospects. Aic, Economy, Management. Moscow. *Editorial Board of journal Agribusiness, Economics, Management*, 4: 52-56.
- Zhidkov, S. A. (2014). *Role of infrastructure in formation of developed market of food grains in Russia*. *Bulletin of Michurin State Agrarian University*. Publishing house of Michurinsky State Agrarian University: Michurinsk. 6: 57-61.
- Zhidkov, S. A. (2017). Features of state regulation of the Russian grain market at the present stage. Economics of agricultural and processing enterprises. Moscow. *Editorial Board of journal Economics of Agricultural and Processing Enterprises*, 6: 57-60.
- Zhidkov, S. A. (2018). *Priority directions of grain market development in Russia*. OOO BIS: Michurinsk. 313.
- Zinisha, O. and Khanzhyan, A. (2015). Volatility of ruble in conditions of European sanctions. *Economy And Society*, 6(19).
- Znamensky, V. V. (2016). Analysis of the economy as a nonequilibrium, Self-developing, Open system. Available: <http://uecs.ru/marketing/item/3949-2016-05/>