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## Market coordination as sustainable development of agricultural market

**Problem` setting.** Feature of a modern agricultural market is that institutional changes forced many market agents (businesses) fight for conditions of existence, which necessitates searching for more effective methods and ways to coordinate their activity in relation to the most influential market subjects.

**Recent research and publications analysis.** Evolution of market relations between market participants has led to the need to analyze the economical realization mechanism efficiency problems of partnership in market conditions.

Fundamentals of researching and using a variety of economic activity coordination mechanisms are planted in works of prominent scientists-economists.

These problems are researched by reputable Ukrainian and foreign scientists, including V. Grazhdan [1], P. Sabluk, P. Gaidutsky [2], V. Geets [4], V. Zinovchuk [3] A. Smit, D. Rickardo, Zh. B. Sey, L. Valras, A. Marshal, J. B. Clark, R. Cantillon, J. M. Keynes, R.Coase [13], F. Knight, O. Williamson [14], J. Schumpeter, F. Hayek, B. Rayzberg [8], J. Hicks, P. Samuelson, T. Veblen, J. Commons, D. Nord, R. Nuryeyev, V. Bazylevych, O. Vikarchuk, V. Geets [4] J. Zhalilo, and I. Mazur [5], S. Mocherny, and others ..

It should be mentioned that the problem of market cooperation (coordination) efficiency and its mechanisms` formation remains valid.

According to this, goal and objectives of this paper emerge, which are: research of the market institution, which is coordination as effective mechanism of relations development between market subjects.

The theoretical and methodological basis of the research is provision of institutional theory

and systematic approach to the knowledge of economic processes of market relations development.

**Main results of the research.** One of the main studied issues of institutional economics is development of market (economic) coordination. In the context of expanding economic relations between market participants, the key question in any sector of economy is coordination, and economical exactly. Nowadays, the issue of market coordination is paid more and more attention by researchers.

Coordination, as an efficient market institution, provides economical agents` mutual ordering through information, creating what is required to do by any economical agent. Reliable information in the market coordination may be provided by market, state, enterprises, etc. Depending on the way it is realized, appropriate forms and types of market coordination are created, based on market agents following the same rules and behavior.

Thus, on condition that all market participants follow existing rules, ability to predict actions is created, and also market mechanisms formation and tools to remove their consequences.

Market subjects expect some reaction from a market environment, according to that they build their behavior, which further leads to the establishment of an efficient and stable structure interactions. As a result, mutual activity of economic subjects is happening, i.e. their coordination.

That is why development and functioning model of market coordination, where market is on the foreground and country is the most effective among other existing coordination forms. It is worth mentioning that the balance between market and state coordination is provided by the existing institutional environment. According to it, a market as a special institu-

tional structure, is unable to fully coordinate economic subjects without interaction (collaboration) with a state, that is, without effective institutional and legal framework. It is in this sense, the existence of market coordination is impossible without legal, cultural, social subsystems of market environment. So, it is indisputable that the market coordination coordinates closely with the established rules and institutions.

For a proper understanding of coordination activity in market environment, it is appropriate to clarify the "coordination" concept.

The term "coordination" is derived from the Latin word ("co" - compatible and "ordinatio" - ordering) - reconciliation, negotiation, interaction, conformation [6].

Dictionary of foreign words, edited by O. Melnychuk defines coordination as harmonization, alignment of, establishing an interconnection between actions, concepts, movements, etc. [7].

Coordination is also recognized as management function, which is extremely important for regulation and constant management system diagnostics [8].

O. Lun'ov stated that coordination means actions' reconciliation and connection for the fastest and the most correct problem solution with minimum force, costs and materials used [9].

In another his interpretation A. Lunev argues that the main features of the coordination is actions' interaction between independent market subjects for the most correct way to solve a problem [10].

E. Karpuhina offers the following definition: "Coordination, as a special apparatus for activity programme conformation to satisfy general priorities. bringing to global goal Z, which is in front of organization in general, local goals z, and it is a complex of units (organizations) that are in front of individual units [11, p. 56].

Prokop'ev V. N. offers considering coordination as "economic process category of separate participants interaction". Author well noted that it is wrong to divide all interaction on two types: market (exchange) and directive (hierarchical) [12, p. 5].

Literature overview provides a conclusion that coordination is special condition for inter-

action, mechanisms aimed on formation and management methods ordering and market subjects operation. Coordination exists to identify and eliminate the causes of economic processes' misalignment, promotes the institutional changes creation and conditions that can effectively influence wa thou institutional system, and to maintain and improve the conditions of equality and universality (efficiency). In other words, build relationships which most effectively contribute to agricultural market's business entities activity.

For many years among scientists dominant opinion that the idea of the existence of efficient market is about demand and supply are coordinated through price only. However, we believe these conditions are not sufficient for market existence. We are supporting R. Coase (1937), who in his work "The Nature of the Firm" argues that in addition to the market it is important to consider the company, where human and material resources are integrated into management process, but not through price as mentioned previously. According to him, the company and the market is an alternative way of organizing economic coordination, which determines which types of activities, which products and what to do in the market [13].

Later, O. Wilyamson (1985) pointed out that the fact that coordination takes place both inside a company and between independent enterprises, because it is a variable decision and that the chosen form of coordination will depend on economic relations each participants' transaction costs. This is due to a number of features, including: behavioral factors, transaction costs and their elimination, imperfect institutional structures and institutions of a market, etc. [14].

Operations on the market and competition between market agents are useful starting point for economic coordination interpretation, also through market's "invisible hand", which coordinates supply and demand through price mechanism on each level of the marketing chain. However, in reality there is no efficient and conscious activity coordination among market participants. Usually they make independent decisions.

According to R. Coase, condition of effective coordination functioning is market and

market subject, and what is important – capital, we would add institutional capital also.

The essence of market coordination is about forming consciously structured relations among all market participants, in order to achieve greater efficiency of their activities, which includes the following:

providing and stimulating investments, in conditions of lack or absence of necessary capital amount;

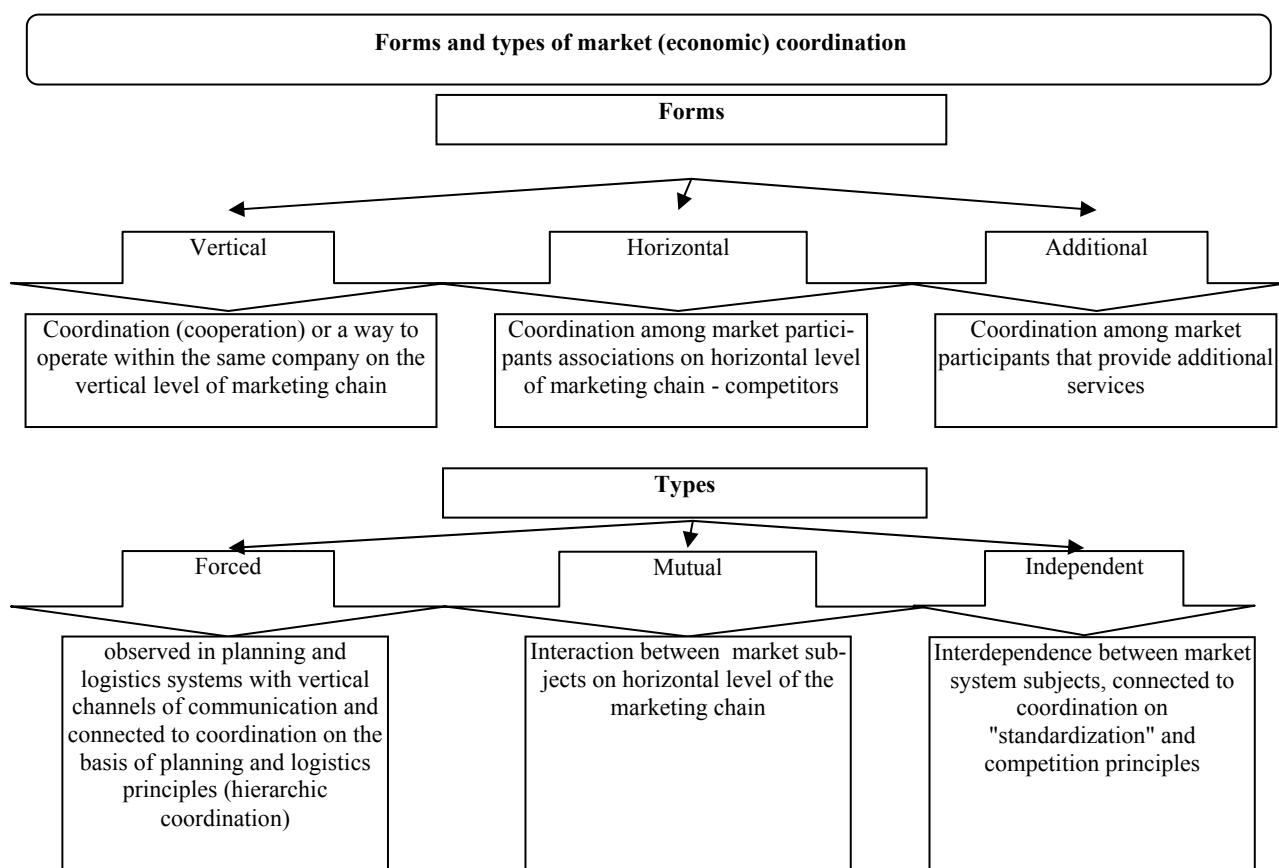
balancing not just goods and services, but also their quality;

significant goods' consignment formation;

making bigger profits;  
market pricing efficiency.

In other words, market (economic) coordination is a joint effort of agricultural market participants, that operate within joint activity limits in order to achieve a common goal. It can happen as an initiative of private market agents for collective cooperation and also may be organized by state institutions.

With this in mind, we have identified the most favorable conditions for economic coordination, which is shown in Fig. 1.



**Figure 1. Classification of forms and types of market coordination**

Source: on the basis of personal research, by author of the paper.

The most effective and efficient in today's economic coordination is cooperation. That is, the ability of market participants cooperation is one form of coordination of economic resources, and is particularly important since it helps clarify and highlight the theoretical and practical approaches to this issue that will determine the mechanisms and conditions for joint activities.

It should be noted that distribution of responsibilities, working conditions require presence of the means to coordinate certain activi-

ties correctly. In case of effective enterprise institution, coordination can be both spontaneous and planned. In case of ineffective economic coordination and its exclusion from agricultural reality, understanding of institutional system functioning in general is distorted.

Introduction of full-scale cooperative partnership is one of the effective modern stages of agricultural sector economic development.

This analysis gives an opportunity to propose unique definition of "coordination" concept.

*The market (economic) coordination – is a system of economic, institutional, organizational relations, which forms agricultural market agents' activity conditions to achieve common goals and objectives.*

In other words, these relations include at least market access, also obligations that market participants take and guarantee their observance and implementation.

These obligations and relations in the economic coordination are:

✓ unilateral commitments (relationship) – economic agent sells or buys on the market products or services to other market participants to meet their temporary needs;

✓ ✓ bilateral - drafting agreements between businesses, with the aim of mutual support, mutual assets transfer, technologies development, etc. The latter include: joint ventures (JV), franchising, subcontracting, etc.

Collaboration between various companies makes it possible to coordinate resources to achieve economic efficiency, economy and cutting transaction costs. It is known – they affect efficiency of both market itself and each market agent in some degree. According to the institutional theory, economic performance of any activity may be determined by level of transaction costs in certain circumstances. This is based on the fact that, in course of business activity a significant fraction of time and money spent on: searching for relevant information, negotiating, contracts drafting, providing competitiveness, social events.

Making to a higher level of development by businesses, caused by scientific and technical progress, globalization, innovation, more actively affects the growth of transaction costs, the level of that in the final products' added cost reaches almost 50%. Relative to that, using market category “economic coordination” becomes the highest value as in evaluating the effectiveness of market processes in market

conditions, market institutions (businesses) functioning efficiency as components of market infrastructure, also in transaction costs cutting.

So, that gives grounds to assert that market coordination and cooperation of all participants at all levels of the agricultural market will allow primarily to cut transaction costs and create conditions for the most effective joint activity.

We will focus on defining of transaction costs concept, which will allow to understand the mechanisms of market (economic) coordination, which determine the creation of institutional market structures, and contribute effectively to coordination (cooperation) in production, distribution and consumption processes. It should be noted that transaction costs can have a special role in market institutions forming, among which is the institution of cooperation, and to be an economic category that can be used in the study of organizational, economic, social, institutional and other operating conditions.

Table shows the analysis of the most significant transaction costs concepts formation.

Analyzing these definitions, it can be argued that variety of transaction costs is caused by variety of ownership forms and management, the types and sizes of business subjects, etc.

It should be noted that any transaction costs and their size occur in the process of each market participant's activity. In order to reduce and assess them, market (economic) coordination is efficient between all institutes and market institutions that will positively affect both the functioning and development of the market and the efficient operation of each of its members.

Exactly the market (economic) coordination will enable them to compete effectively on domestic and foreign markets, resist monopoly formations and significantly reduce emerging transaction costs.

### Most significant transaction costs concepts \*

Definition of transaction costs	Author	Source
The concept of transaction costs has been used to explain the existence of such opposing market hierarchic structures as firm, connected formation of these "islands of consciousness" with their comparative advantage in terms of savings on transaction costs. Specifics of the company operation he saw in the suppression of the price mechanism and its replacement with internal administrative control system.	R. Coase	Coase R. Firm. Market. Law / R. Coase. - Moscow: Delo, 1993. - 192 with.

Specifies the transaction costs as economic system operation costs.	K. Arrow	Arrow K. Possibilities and limits of the market as a mechanism for allocating resources.
Transaction costs "include costs estimates of useful object properties and cost sharing rights and compliance enforcing with them"	D. North	North D. Institutions, institutional changes and economy functioning. M., 1997. P.45.
Transaction costs - costs of estrangement and appropriation of property rights and freedoms created by society	J. Commons	Grishko N.V. Modern concepts of industrial enterprises cost management [electronic resource]. – access mode: <a href="http://lukyanenko.at.ua/ld/2/208.pdf">http://lukyanenko.at.ua/ld/2/208.pdf</a> . P. 35)
Transaction costs - costs of determination and providing of ownership rights.	D.Alen	Myloshyk V. I. Problems of transaction costs definition / V. I. Myloshyk. // Scientific notes. T.18. Economics. Collection. H AUC. P rats National University "Kyiv-Mohyla Academy." - K.: 2000. - P. 46-50. (V. ... 48)
Transaction costs - costs for the firm to adapt to changing market conditions	G. B. Kleiner	Business strategies: analytical directory / G. B. Kleiner. - Moscow: CONSECO, 1998. – 612 p. (ie .235)
Transaction costs - economic costs, including implicit costs (losses), determined by an alternative principle as a set of costs arising from the exchange of property rights, and expenses intended to reduce these costs	S. I. Arhiyereyeva	Arhiyereyev S. I. Transaction costs in terms of market transformation: Author. Tons. Dr. Econ. AUC H: 08.01.01. / S. I. Arhiyereyev / Kharkiv National University of vol. V.N. Karazin. - H., 2002. - 32 p. (V. 4).
transaction costs – the costs of decision-making, development planning and organization of future activities, negotiating on their content and conditions, when two or more participants enter in business relations, cost of plans` changing, revision of an agreement and settlement of disputes, if that is dictated by changed circumstances; ensuring that members adhere to agreements	R. I. Kapelyushnikov	Kapelyushnikov R. Economic theory of property rights (methodology, basic concepts, sphere of problems) [electronic resource] - Access mode: <a href="http://ecsocman.edu.ru/db/msg/4463">http://ecsocman.edu.ru/db/msg/4463</a> (p. 87)
Transaction costs - cost of design, discussion and insurance guarantees of agreement terms; costs related to the poor adaptation to unforeseen events and take place in violation of their implementation compliance mechanism of realization circumstances; institutional and operational costs related to the use of certain governance structures to eliminate conflict situations; insurance costs, related to precise contractual commitments.	O. Williamson	Williamson, O. (1985). Economic institutions of capitalism, Mexico (1985).

\* Systematized by the author through literature analysis.

In practice interest to the market (economic) coordination increases due to increased requirements for supply systems, to combine according to volumes and conformity of consumers` requirements.

This necessity is caused by increased demand for agricultural products from large supermarkets, wholesale markets and other market subjects that are willing to work with large subjects of the market infrastructure.

In our country, economic subjects that provide substantial offers of agricultural products are farms, large commodity companies, including agricultural holdings, corporations, etc.

However, statistics shows that significant share of agricultural products is produced by small and medium-sized subjects of economy, namely agricultural households and farmers. It is exactly in this context we keep the position

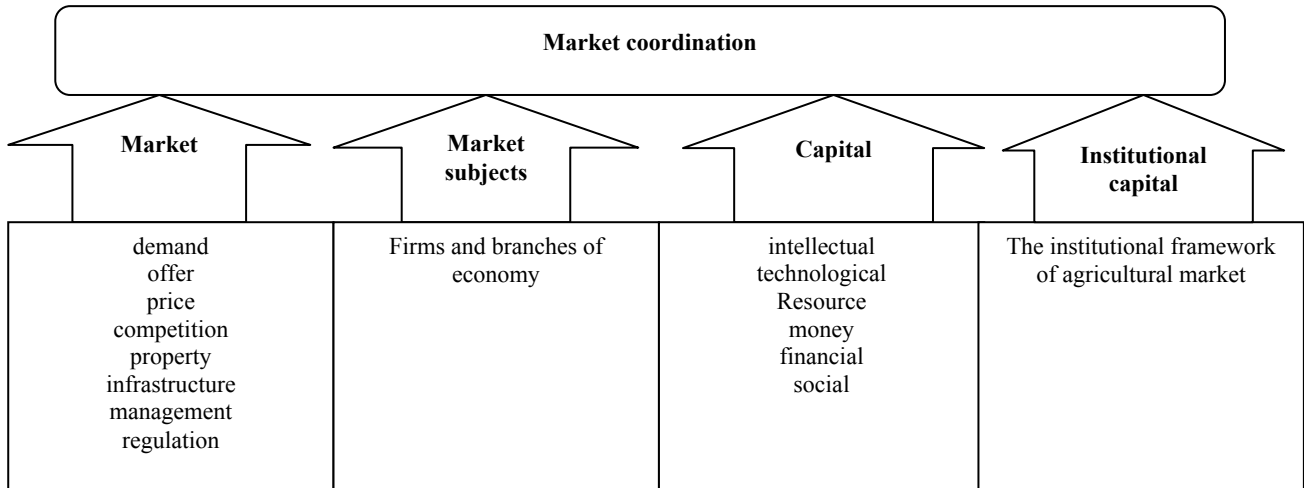
that economic coordination creates effective market instruments and mechanisms, as well as new market institutes and institutions for market subjects (mainly small and medium), which would make impact on industry branch development, production volumes and its quality in joint activity.

Research and monitoring constraints of this collaboration and obtaining reliable information regarding this opportunity will give signals to the state to participate in the process of market coordination.

Information is one of the driving forces that affect the efficiency of market environment activity. Unreliable information makes market subjects uncertain and vulnerable compared to other market participants.

From the stated above, we generated market (economic) coordination algorithm of agricul-

tural market subjects (Fig. 2).



**Figure 2. Market coordination formation algorithm\***

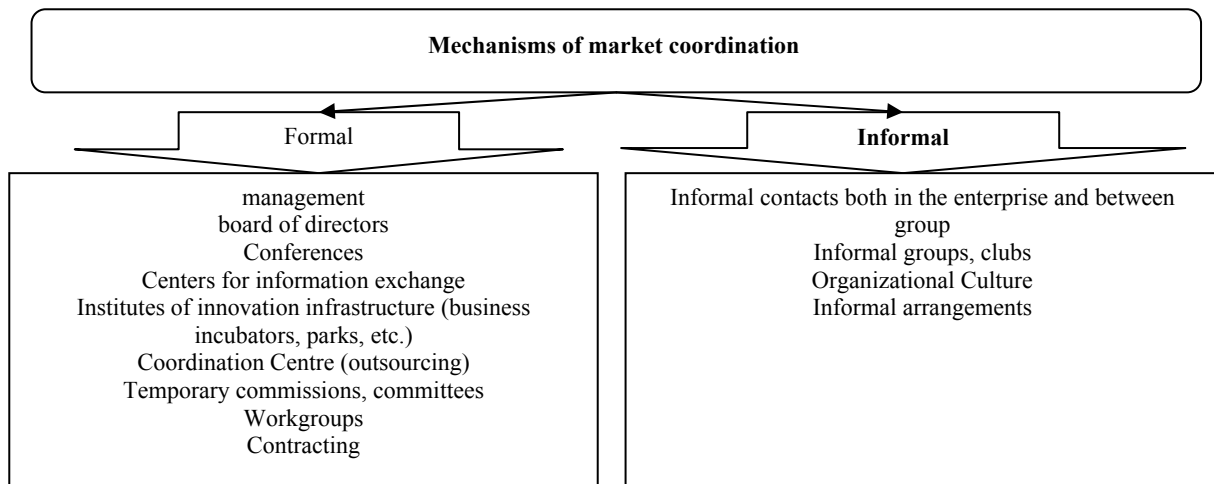
\* Source: author generated.

Summarizing some results, we can say that the main market signals that act as indicators of market coordination formation are data about: demand, proposal, price, pricing, competitiveness, ownership rights and profit.

It should be noted that despite positive aspects in formation and development of market coordination, there are significant difficulties associated with unbalanced nature of development in various regional markets. Market coordination develops chaotically, without any single coordination center, it is poorly integrated with information, financial and other subsystems of the agricultural market.

Above mentioned problems are complicated by market subjects' development, which was carried out separately on various regional markets' types, which reduces their interaction effectiveness within same market environment. It is in this "weak spot" precisely where information, innovation infrastructure institutes and market coordination mechanisms gain significant importance.

Main market coordination mechanisms as combined action for the most effective impact on the market process are shown in Fig. 3.



**Figure 3. Mechanisms of market coordination\***

\* Source: author generated from Shegda, AV Management: Training. Manual / AV Shegda. – K.: Knowledge, 2002. – 583 p.

In the process of market coordination mechanisms formation, special attention should

be paid to existence of obstacles that were caused by the following:

Different managers' guidemarks;  
 Contradictions pits between tasks, programs and strategies;  
 lack of mutual respect among managers  
 state institutes heads' incompetence  
 lack of common vision of economics branches on all levels of country's institutional system.

Summing up and despite the different interpretations of the "coordination" concept we have examined the role and place as well as the problems of market coordination at various levels of the institutional system that gave us capability to form a hierarchic system of agricultural market coordination (Figure 4).

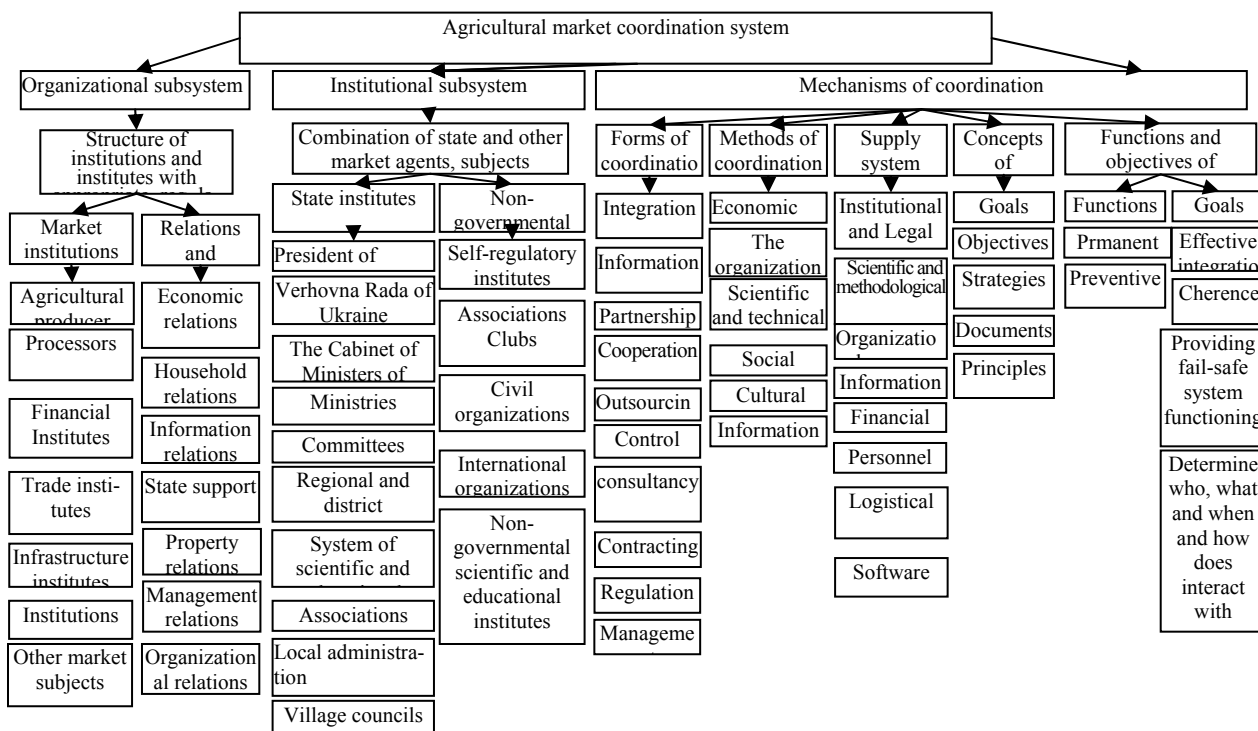


Figure 4. The hierarchic structure of the agricultural market coordination\*

\* Formed by author on own research.

Based on the foregoing, conclusions:

1. Market coordination will be efficient only in systemic interaction of all institutional structures of the agricultural environment.
2. The process of market coordination development have rapid nature in both global, national and regional economies. Market coordination takes special place at the local level,

which proves many agricultural producers' interest to operate through the cooperation institute.

3. Formation of market coordination through the cooperation institute for all regions collaborates to more efficient business activity by market agents.

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## Новини АПК

### Україна та США поглиблюють співробітництво в аграрному секторі

Україна та США планують поглибити співробітництво в галузі сільського господарства. Зокрема, йдеться про двосторонню торгівлю сільгосппродукцією та устаткуванням для аграрного сектору. Найближчим часом у США планують розглянути можливість постачання українських зернових на американський ринок. Про це йшлося на зустрічі Міністра аграрної політики та продовольства України Миколи Присяжнюка та Надзвичайного і Повноважного посла США в Україні Джона Теффта.

Микола Присяжнюк відзначив ефективність та результативність співпраці між Україною і США в аграрному секторі. «Завдяки об'єднанню зусиль нам вдалося досягти тих результатів в аграрному секторі, які ми на сьогодні маємо. Хочу нагадати, що під час візиту до Вашингтону я мав низку зустрічей з потенційними інвесторами, які виявили ініціативу розвивати масштабне інвестування в сільське господарство України. Я переконаний, що це позитивний сигнал», – наголосив Микола Присяжнюк.

Посол США в Україні Джон Теффт подякував за співпрацю двох країн в аграрному секторі. Він наголосив, що співробітництво у цій галузі є перспективним. Зокрема, це стосується як сільгосппродукції, так і устаткування для аграріїв.

Нагадаємо, що товарообіг сільськогосподарської продукції між Україною та США у 2012 році становив 353,05 млн дол., що на 120,4 млн дол. більше, ніж за аналогічний період 2011 року, за три місяці цього року – 126,09 млн дол., на 29,09 млн дол. більше, ніж за аналогічний період 2012 року.

*Прес-служба Мінагрополітики України*