

THE REPUBLIC OF AZERBAIJAN

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**PROBLEMS OF IMPROVING THE ECONOMIC
MECHANISM
OF THE CONSUMER MARKET IN THE AGRARIAN
SECTOR**

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Applicant: **Nizami Jalal Gafarov**

ABSTRACT

of the dissertation for the degree of Doctor of Economics

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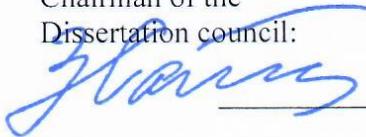
The dissertation has been accomplished at the Centre for Agrarian Research under the Ministry of Agriculture of the Republic of Azerbaijan.

Scientific supervisor: Professor, Dr. of Economy
Honored scientist
Bayali Khanali Atashov

Official opponents: Professor, Dr. of Economy
Isa Huseyn Aliyev
Professor, Dr. of Economy
Rasul Anvar Balayev
Professor, Dr. of Economy
Xatira Mail Huseynova
Professor, Dr. of Economy
Pari Amirahmad Hasanova

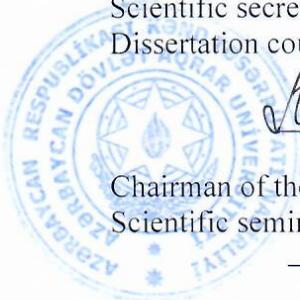
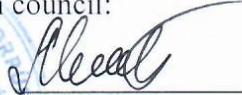
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Professor, Dr. of Economy,
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Ziyad Aliabbas Samadzadeh

Scientific secretary of the
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Doctor of Philosophy in Economics,
associate professor
Parvin Elman Mukhtarova

Chairman of the
Scientific seminar:



Professor, Dr. of Economy,
Honored worker of agriculture
Islam Haji Ibrahimov

INTRODUCTION

The actuality of the subject. The main goal of the country's economic development is to fully meet the socio-economic needs of the population. Therefore, the comprehensive development of the agrarian sector, especially the improvement of the economic mechanism of the agrarian consumer market formed in our country, serves the stated purpose. Thus, its comprehensive research is one of the most pressing problems of our time and is especially relevant.

The consumer goods market, which is a complex and diverse system, forms the basis for the formation and development of the commodity market. In this respect, scientific research and study of the processes occurring in the agrarian consumer goods market is always a necessity. The agrarian consumer goods market should be studied and analyzed in the context of interaction with other stages of social reproduction, because the agricultural consumer goods market is one of the most important factors influencing socio-economic development.

Analyzing the development of the country's economy, we see that in our country, there is a need to study issues such as the production of agricultural consumer market products, the import and export of retail goods and to identify solutions to problems. Thus, the effective implementation of economic mechanisms in the agricultural consumer goods market, the structure, volume, balance of supply and demand, protection of the rights of producers and consumers in the consumer market, the formation and development of a competitive environment between parties represents a complex system in which the relationship between agricultural producers and the processing industries, which are commodity producers, and trade will be formed. It is necessary to study this process for each period and has a special relevance. In this context, it is necessary to study and solve the problem from a scientific point of view to achieve the effective development of the agricultural consumer goods market.

The issue is also relevant because it is closely related to the global problem of food security. Therefore, the main purpose is to understand the essence of the formation and development of the

economic mechanism of the consumer market in the agrarian sector in our country, to generalize the concepts and theories that exist in this process, to analyze the current state of the agricultural consumer market, to study the means and methods of regulating the economic mechanism of the consumer market in the agrarian sector, to scientifically evaluate ways to improve the economic mechanism of the consumer market and to develop concrete results and recommendations in terms of the overall process.

In spite of the facts that 20 percent of our territory has been occupied by Armenian vandals for nearly 30 years, regional development programs have been successfully implemented under the leadership of President Ilham Aliyev, as well as agricultural development and sale of agricultural products, the adoption of state programs on regulation of raw materials and food markets, and regulatory measures have significantly improved the agrarian situation in the economy by adapting the elements of the economic mechanism to difficult economic conditions and the purposeful nature of change.

The “Strategic Roadmap for the National Economic Perspective of the Republic of Azerbaijan” approved by the Decree of the President of the Republic of Azerbaijan Ilham Aliyev dated December 6, 2016, defines strategic goals and objectives in these areas, as well as evaluation and funding mechanisms for the proposed activities.

In this regard, the development of theoretical and methodological approaches to the transformation of the economic mechanism, as well as the identification of the characteristics of the country and the regulation of the consumer market in the agrarian sector by economic means are very relevant and of great theoretical and practical importance today. Therefore, there is no doubt about the relevance of the research topic.

In recent times, the development of the economic mechanism of the agrarian sector and various efficiency problems have been the subject of research by many scientists. Problems of development of the agrarian sector, as well as related to the various elements of the consumer market and its economic mechanism have been researched by Azerbaijani economists, such as Z.A.Samadzadeh [38,98], E.A.Guliyev [78,79,80], B.Kh.Atashov [32,33,34], E.R.Ibrahimov

[52], I.H.Ibrahimov [53,56], S.V.Salahov [95,96], H.A.Khalilov [51], I.H.Aliyev [28,29,30], V.H.Abbasov [26,27], R.Balayev [39], F.F.Fikratzadeh [46], M.J.Huseynov [48,49], T.N.Aliyev [45], A.F.Abbasov [24], A.E.Guliyeva [73,74], E.M.Hajizadeh [47], E.Y.Mammadov [85,86], N.H. Ahmadov [41], A.Ch.Verdiyev [101], A.H.Aliyeva [43], as well as foreign scientists, such as N.A.Borkhunov [109], Z.K.Gerasimova [120], M.Q.Lapaeva [138], N.I.Lukashev [140], E.S.Maskin [144], V.V.Maslova [145,146], A.S.Narinbayeva [150], P.Q.Nikolenko [151], D.A.Polzikov [156], A.B.Smirnov [163], L.B.Sulpovar [166], A.E.Chusova [177], L.B.Schastlivchevz [167], N.N.Tereshenko [170,171] and others.

The works of these authors formed the theoretical basis of the research. Also, there is a need to study a number of theoretical, methodological and scientific-practical issues on the formation of an effective economic mechanism of the consumer market that meets the requirements of sustainable development of modern agricultural production in accordance with today's requirements. The choice of research topic was motivated by this need.

The natural resources of the liberated areas, especially their agricultural potential, are important for the future economic development of our country. The potential of these areas is very high. Although the occupiers have destroyed everything of material and moral value in these territories for 30 years, every inch of these lands is our wealth. It is obvious that Karabakh lands with its beautiful nature, underground and surface resources will bring great dividends to our economy. After the construction work, the return of people to those lands, the cultivation of lands, the creation of socio-economic infrastructure, we will see how much these regions will give a positive impetus to our development.

The object and the subject of the research. The object of research is the enterprises and organizations for production, processing, trade and infrastructure services that ensure the sustainable development and management of the consumer market in the agrarian sector. The subject of the research is the organizational and economic relations, regulation methods, principles and regularities that arise in the process of functioning of the economic mechanism of the

consumer market in the agrarian sector.

The purpose and the objectives of the research. The purpose of the study is to develop theoretical and practical proposals and recommendations to ensure the sustainable development of the agro-food market, based on the substantiation and development of theoretical and methodological provisions for improving the economic mechanism of the consumer market in the agrarian sector.

To achieve the goal, the following tasks are solved:

- to reveal the content elements and essence of the economic mechanism of the consumer market in this field by researching the theoretical and methodological problems of the study of the economic mechanism of the consumer market in the agrarian sector;

- to study the existing concepts and theories of the consumer market in the agrarian sector, to confirm the need for the formation of the infrastructure of the consumer market and to determine the features of its development;

- to examine the development of the consumer market in the agrarian sector and the provision of the population with food products, to analyze and evaluate the current state of the consumer market and to research the possibility of using international experience in the formation of the consumer market;

- to examine the price policy and tax mechanism in the macroeconomic regulation of the consumer market in the agrarian sector, to research the mechanisms of price regulation of agricultural products in the consumer market, to determine ways to support the consumer market and entrepreneurship with the price mechanism;

- to substantiate the effectiveness of the use of tools to regulate the economic mechanism of the consumer market in the agrarian sector, including credit, insurance and investment;

- to study the problems of improving the economic mechanism of the consumer market in the agrarian sector, to analyze the state support for the import and export of agricultural products, to determine opportunities to increase the competitiveness of consumer market products and access to foreign markets;

- to develop proposals on increasing state support and improving the mechanism of implementation and management of green agro-

food supply chains, as the main directions of improving the economic mechanism of the consumer market of the agrarian sector, which provides stimulation of agricultural production.

Research methods. The theoretical, methodological, and practical provisions of the dissertation are based on the combined application of systematic, logical and dialectical approaches, which allow to form a holistic view of the functioning of the economic mechanism in the agrarian sector.

Scientific research methods such as systematic approach and analysis, grouping and comparison, expert assessment and observation, economic-statistical and correlation-regression analysis, organizational and graphical modeling has been used in a complex way during the research.

The methodological and theoretical basis of the research is the basic studies of local and foreign scientists on the economic mechanism, normative-legislative acts, program documents and subjects of the competent authorities of the Azerbaijan Republic, regulating the use of economic mechanisms. The main research basis is the materials of scientific and educational institutions in the field of agriculture and the works of scientists.

The main provisions to be defended.

1. Recognizing the main elements of the concept of "economic mechanism" as a set of tools, its role in the economic system is defined. Also, existing concepts and theories of the consumer market in the agrarian sector have been considered, the peculiarities of the formation and development of the infrastructure of the agricultural consumer market have been studied, and the possibility of creating the necessary conditions in this direction has been proved.

2. The current state of the agricultural consumer market has been examined, the experience of modern models of the economic mechanism of the agrarian consumer market of foreign countries has been analyzed by identifying the problematic points and tools of progressive activity in the context of the formation of the consumer market and directions of implementation have been indicated.

3. The tools and methods of effective economic regulation of the economic mechanism of the consumer market in the agrarian sector

have been determined, the main features of the pricing policy and tax mechanism have been identified, the role and importance of the price mechanism in supporting agrarian entrepreneurship have been substantiated and the priority directions of tax and price policy have been indicated.

4. The current state of the lending mechanism in the economic regulation and development of the consumer market in the agrarian sector has been analyzed and evaluated, and the international experience in lending has been summarized and its implementation opportunities in Azerbaijan have been examined.

5. The importance of insurance in the economic mechanism of the consumer market in the agrarian sector and ways of its use have been analyzed, the need for its widespread implementation has been substantiated and the importance of efficient use of investments and ways to improve its implementation have been determined.

6. The aspects of promoting and supporting the export of the main types of agro-food products, increasing the competitiveness of the country's agricultural producers, and accessing the products to the international consumer market have been improved.

7. Ways to improve the implementation and management of green agro-food supply chains, as the direction of developing state support for the economic mechanism of the agricultural consumer market have been indicated, and the need for agrarian sector clusters for the development of the green agro-food supply chain and directions for their development have been proposed.

Scientific novelty of the dissertation is the development of theoretical and methodological provisions and practical recommendations for improving the economic mechanism of the consumer market in the agrarian sector. The most important issues that characterize the scientific novelty of the dissertation are:

- First-time, the content elements and essence of the economic mechanism of the consumer market have been determined by generalizing the theoretical and methodological aspects of the study of the economic mechanism of the consumer market in the agrarian sector.

- Generalizing the existing concepts and theories on the consumer market in the agrarian sector, the points of their use have

been determined, and the features of the formation and development of the infrastructure of the consumer market in the agrarian sector have been identified

- Issues such as the development of the consumer market in the agrarian sector and the provision of the population with food products have been examined, the current state of the consumer market has been analyzed and evaluated, and opportunities for the use of international experience in the formation of the consumer market have been researched;

- Issues of macroeconomic regulation of the consumer market, price policy and tax mechanism in the agrarian sector and mechanisms of price regulation of agrarian products in the consumer market have been studied. Also, the ways to support the consumer market and entrepreneurship through the price mechanism have been identified, and the model of using the price mechanism has been indicated.

- The effectiveness of the use of tools of regulating the economic mechanism of the consumer market, including credit, insurance and investments in the agrarian sector has been substantiated, and proposals have been made on the basis of concrete results.

- The problems of improving the economic mechanism of the consumer market in the agrarian sector have been researched, the state support for the import and export of agro-food products has been analyzed, and the opportunities to increase the competitiveness of consumer market products and directions of access to foreign markets have been determined.

- The methods for improving state support and the application and management of green agro-food supply chains have been presented as the main directions of improving the economic mechanism of the consumer market of the agrarian sector, which provides stimulation of agricultural production. Proposals have been prepared for the formation and development of agrarian clusters for the development of the green agrarian food supply chain.

Theoretical and practical significance of the research. The theoretical significance of the research is that theoretical-methodological provisions and the complex practical measures implemented as a result of the research will allow to increase the

effectiveness of state policy aimed at improving the sale of quality food products to the population in the consumer market of the agrarian sector of the economy and improving the living standards of the population.

Specific proposals and recommendations for improving the economic mechanism of the consumer goods market in the agrarian sector can be used at both macro and micro economic levels of the country.

The practical significance of the dissertation is that in the preparation of targeted economic programs for the development of the agrarian sector, the possibility of applying the recommendations of the republican and regional executive authorities to improve the economic mechanism has been included.

The proposed methodology and the system of indicators presented to assess the effectiveness of the economic mechanism can be used to regulate the management decisions and program measures adopted by the governing bodies of the agro-industrial complex at the national and regional levels. The model developed for the organization of wholesale and distribution centers can create favorable conditions for agricultural market partners, especially agricultural producers, to increase the profitability of their activities.

The scientific results of the dissertation can be used by employees of research institutions, as well as in the training and retraining of highly qualified personnel, and in professional development of specialists in the teaching of relevant subjects at economic universities.

Approbation and implementation of the research.

The main content of the dissertation has been reflected in 5 theses and 18 scientific articles published, the total volume of which is more than 10 printed pages. These includes articles published in authoritative journals of Azerbaijan and foreign countries, such as “Factors contributing to the increase of economic efficiency in the agrarian sector” (Moscow, 2016), “Priorities for the development of the agrarian sector” (Baku, 2017), “Features of price formation in the agrarian sector” (Austria, Vienna 2017), “Ways for increasing local production in the agrarian sector” (Baku, 2017), “Principles of a

systematic approach to the formation of the consumer goods market” (Baku, 2017), “Main aspects of economic regulation of the agrarian consumer market” (Baku, 2017), “Development problems of agrarian consumer market” (Baku, 2018), “Scientific-theoretical bases of formation and development of economic mechanism of agrarian consumer market” (Baku, 2018), “Methodological approach to the economic analysis of the development of the consumer market” (Baku, 2018), “Foreign experience in the formation and functioning of the economic mechanism of the agrarian sector” (Baku, 2019), “Development and expansion of the consumer market in the agrarian sector (Baku, 2019), “Barriers and drivers of the implementation and management of green agro-food supply chains in Azerbaijan” (London, 2020), “Features of the formation and development of the agro-food market in Azerbaijan” (Belgorod, 2020), “The price mechanism for ensuring the competitiveness of export-import operations” (Manchester, Great Britain 2020), “Complex assessment of factors determining the dynamics of prices in the agro-industrial market” (Kiev, 2021), “Methodological issues of determining the integrated indicators of the economic mechanism in the agrarian sector” (Baku, 2021), “Methodological issues of determining the integrated indicators of the economic mechanism in the agrarian sector” (Baku, 2021), “Features of the implementation of the agrarian sector risk insurance mechanism in modern conditions” (Baku, 2021), “Improving the use of existing investment potential in the agricultural sector”(Baku, 2021) and theses published in international conference proceedings, such as “Aspects of regulation of integration processes in the effective functioning of the agro-food market” (Baku, 2017), “Ways to improve production-economic relations in the agro-food sector in modern conditions” (Baku, 2018), “Improving measures for state regulation of the consumer market in the agrarian sector” (Baku, 2018), “Ways of providing the consumer market of Azerbaijan with agro-food products” (Poltava, 2020), “Necessity and directions to facilitate access of agricultural producers to the international consumer market” (Rome, Italy 2021), which held in different countries.

Some provisions of the dissertation have been used as auxiliary

materials in the teaching process of related subjects in Azerbaijan Cooperation University.

The main provisions and results of the dissertation have been accepted for implementation by Consulting and Supply Services LLC (№-13, reference dated September 2, 2021).

The organization in which the dissertation has been accomplished. The Centre for Agrarian Research under the Ministry of Agriculture of the Republic of Azerbaijan.

The total volume of the dissertation. The total volume of the dissertation consists of 276 pages (456401 characters) including table of contents, introduction (19912 characters), 5 chapter (Chapter I - 79978 characters, Chapter II - 64109 characters, Chapter III - 68915 characters, Chapter IV - 81073 characters, Chapter V - 85044 characters), conclusion (19612) and 237 bibliographies used (32408 characters). The total volume of work, excluding tables, figures, diagrams, bibliography, is 420374 characters. The dissertation contains 43 tables, 5 figures, 3 schemes and 21 graphs.

OVERVIEW OF THE DISSERTATION

In the introduction of the dissertation, the actuality of the subject, the object and the subject, the purpose and the objectives, methods of research, the main provisions to be defended, scientific novelty of the dissertation, theoretical and practical significance, approbation and implementation of the research, and the total volume of the dissertation have been explained in detail.

In the first chapter of the dissertation “**Theoretical and methodological problems of studying the economic mechanism of the consumer market in the agrarian sector**”, the content elements of the economic mechanism of the consumer market in the agrarian sector and their essences have been examined, various scientific views have been analyzed, approaches and the objective necessity of the evolutionary process have been studied. Also, the main elements and views on the existing concepts and theories of the consumer market in the agrarian sector have been considered by determining the role of this mechanism in the economic system. Features of the formation and

development of the infrastructure of the consumer market in the agrarian sector, as well as the impact of state regulation on its key elements have been researched.

The concept of “economic mechanism” has been studied in detail by scientists working on agricultural economics. It is concluded that the economic mechanism consists of a set of interrelated prices, budgets, credit, taxes, insurance, and customs-tariff subsystems that ensure the functioning of agriculture. These mechanisms have an important role in solving the problems that hinder the sustainable development and efficient operation of the consumer market.

The study shows that currently the subsystems of the economic mechanism are of great importance in regulating the relations between the subjects of the agrarian market. In each of the subsystems, it is possible to influence the financial and economic situation of agricultural producers and the agro-industrial complex and ensure parity. Due to the fact that the main task of the economic mechanism in the current situation is to ensure food security and import substitution in the consumer market, it is very important to take economic mechanisms seriously.

The study of the consumer market in the agrarian sector requires the study of appropriate methods of influence from each agrarian production enterprise, agrarian producers, and its commercial intermediaries, with the help of agility and the ability to adapt to action on objective market factors and various complex research methods¹.

Based on international experience, it can be concluded that the modern consumer market allows to meet the needs of production and consumption, having a significant impact on strengthening the financial system and expanding the activities of producers. As a result, the quality of consumer goods produced by commercial firms increases with the application of new innovative technologies and the attainment of the reduction in turnover costs².

¹ Diversification of the structure of agrarian production (on the example of Ganja-Gazakh economic region) / M.J.Huseynov, V.T.Amrahov, A.M.Gasimov, A.F.Hasanov, N.A.Narimanov - Baku, Science Development Foundation. 2016. p - 168.

² Problems of formation of the consumer market in the conditions of transition

The special weight and role of the consumer market in ensuring the livelihood of the population is very high. The market balance of demand and supply of goods and services is ensured through the consumer market. The formation and activity of any consumer market depends on the structure of the relationship between producer-consumer and demand-consumption, the structure of income and consumer characteristics, and the share of savings in income and so on.

According to E.Y.Mammadov, *“The consumer market includes a relatively independent set of elements (food and non-food market, catering market, service market, etc.) that act as a subsystem in terms of a systemic approach. The properties of the elements determine their place in the system and are realized in the relevant functions (market functions)”*³.

In economic research, different authors have different conceptual approaches to the interpretation of the nature of the consumer market, the regularities of its operation and the determination of development factors.

We believe that, the consumer market should be considered as a set of economic relations between sellers and consumers of food and non-food products and paid services based on personal consumption and within the boundaries of administrative-territorial units.

The functions of the consumer market have an important role in the development of the country's economy:

- provides various needs of the population (as final consumers) with goods and services purchased during the exchange of commodity and money;
- forms and regulates prices based on supply and demand, and cost of goods;
- regulates production and consumption mismatches between regions and sectors of the country's economy;
- balances the volume and structure of supply and demand;

economy in Azerbaijan / N.H.Ahmadov. Abstract of the dissertation submitted for the degree of Doctor of Economics. - Baku, 2006, p - 48.

³ Consumer market management. Textbook // E.Y.Mammadov. - Baku: Azerbaijan State University of Economics, - 2019. p - 204.

- stimulates the development of the economy and industry through the application of scientific and technological progress to improve the quality of goods and services and reduce their production costs;

- informs economic entities about current prices, assortments, quality of goods and services;

- accelerates the development of more advanced and competitive enterprises in the consumer market.

The implementation of the above functions of the consumer market depends on some factors that affect its formation and development.

Of all the factors, the following are considered the most important:

1) The needs of the population. According to J. Halbright, in the best economic system, "... *people are provided with what they need the most ...*"⁴. Based on this provision, we can conclude that the source of development of all social systems is the needs of the individual acting as the precondition and result of the reproduction process and the activity to meet them. Therefore, it is necessary to determine the needs of individuals, which is one of the main factors affecting the formation and development of the consumer market.

2) Living standards of the population. This factor allows to assess the social consequences for different groups of the population, determining the nature and direction of changes in the consumer market. Consequently, the law of demand in the consumer market is assumed to be a function of living standards, not a function of price: $C = f(\text{Sh})$.

3) Based on this provision, it is necessary to create conditions for the formation and successful development of the consumer market to increase the income of the population and reduce their differentiation.

4) Development of consumer goods production in the domestic market. On the one hand, the supply of goods with a certain size,

⁴ Economic theories and goals of society / J.K. Galbraith. - M.: Progress, -1979. p - 480.

composition and structure is formed in the consumer market. On the other hand, new jobs are created, incomes of the population increase and solvent demand is stimulated.

5) Import of consumer goods. The equilibrium of the consumer market is achieved not by a single domestic production, but by a balance in the quantity and structure of imports relative to the total turnover.

6) Development of consumer market infrastructure. The infrastructure is designed to promote the delivery of goods to the end user between the subjects and structural elements of the consumer market and to provide interoperability by ensuring a sustainable reproduction process.

We think that in the context of a certain development of the consumer market, attention should be paid to the analysis of development trends and characteristics of each group of factors and to determine the degree and direction of activity of each factor.

The formation of market infrastructure plays an important role in the socio-economic life of the country. Infrastructure has a crucial role in the effective organization of material production, increasing production, preventing losses, ensuring quality, normal functioning of economic entities, accelerating trade turnover between producers and consumers, increasing economic efficiency and high final result.

At the current stage, the main approaches to the formation and development of market infrastructure in the food consumer market are as follows:

- supporting modern information support systems, including the development of e-commerce system of food products;
- ensuring the interaction of local producers with wholesalers in order to reduce costs in the sales system and increase the competitiveness of local agribusiness;
- applying of logistics systems to minimize the costs of formation and use of food stocks;
- developing marketing activities of commodity producers and processing enterprises to expand the production and sale of products.

We consider that the development of high-level infrastructure in the agro-food market, such as warehouses and refrigerators,

communication systems, social infrastructure services, leasing services, will serve to increase the competitiveness of local producers and improve the welfare of the population.

Professor I.H.Ibrahimov notes that in the conditions of formation of entrepreneurship, the issues of organization of agro-food market infrastructure include logistics services, transport services, agro-technical services, agrochemical and plant protection services, financial services, marketing services, cleaning services, veterinary services, irrigation services, information and consulting services⁵.

Technological modernization of the existing infrastructure is required based on the formation of effective inter-regional food relations and the integration of the local trade and transport subcomplex into the world trade system and the harmonization of the country's legislation with international requirements and international standards. To solve this problem, we need to implement the following measures:

- creation of a single regulatory framework for the formation and regulation of economic relations between all participants in the infrastructure of the wholesale food market and economic entities;
- organization of a system of movement of food, financial and information flows regulated by government agencies based on a harmonious combination of interests of all market participants;
- insurance and licensing of certain types of activities requiring state regulation.

In the first chapter of the dissertation “**Analysis and assessment of the current state of the consumer market in the agrarian sector**”, the development of the consumer market in the agrarian sector and the provision of the population with food products have been researched, the need for the formation of the consumer market in the agrarian sector and the existing international experience in this field have been studied, and the current situation has been analyzed and evaluated.

Analyzing any local market in the country creates a basis for the market to function effectively. This analysis consists of a step-by-step study of the impact of the macro and micro environment on the market,

⁵ Agrarian economics. Monograph / I.H.Ibrahimov. - Baku: - 2016. p - 655.

local production supply, commodity specialization, and development patterns arising from the competitive market position to plan and forecast the market situation in the long and short term.

Assessing the state and development of the consumer market has a complex structure, but it is very important.

In recent years, the volume of agricultural production in Azerbaijan has increased significantly. This has an important role in solving the problem of food security of the country's population.

Food security is an integral part of the national and economic security of any state. Thus, food security is closely related to the socio-economic development of the country. Therefore, the development of agro-industrial production and the provision of the population with food products that comply with physiological norms are one of the most important problems of the country.

Food self-sufficiency means the physical availability of food at the required level in terms of safety, quality, and quantity at any time.

Table 1 provides information on meeting the population's demand for some agricultural products.

Table 1. The level of self-sufficiency of the population of Azerbaijan in crop and livestock products in 2010-2020, as a percentage

Name of products	2010	2014	2015	2016	2017	2018	2019	2020
Wheat	48,9	60,6	64,5	63,8	66,3	74,1	67,3	57,1
Legumes	65,8	76,5	69,3	68,4	73,7	72,0	76,1	60,3
Potato	100,5	89,7	89,1	85,5	89,2	90,8	87,8	90,6
All kinds of vegetables	97,6	103,4	103,4	105,4	115,2	115,0	112,0	110,4
Tomatoes		112,1	113,7	119,0	130,9	138,0	132,5	131,0
Melon products	100,0	100,4	100,0	100,2	100,2	99,7	100,8	100,8
Fruits and berries	107,9	120,1	113,7	116,4	122,4	123,2	123,1	116,3
Walnuts and hazelnuts		151,4	132,5	141,9	152,9	130,0	138,2	138,0
Pomegranate		103,5	103,7	105,2	104,5	106,3	110,7	112,0
Grapes	90,4	97,9	93,1	89,2	93,4	92,5	94,3	95,8
All kinds of meat and meat products	87,7	92,4	94,7	87,9	84,7	82,7	82,5	84,5
Milk and dairy products	70,4	76,3	84,3	87,7	86,1	86,7	86,3	83,5
Eggs	97,9	99,7	99,7	98,8	100,5	101,5	101,8	100,0
Fish and fish products	76,6	72,8	77,6	82,3	81,2	83,1	82,2	81,7

Source: [222] www.azstat.org. *Food balances of Azerbaijan*. Baku, 2021, p.75,79.

Based on the figures in Table 1, it can be considered that food self-sufficiency is not satisfactory. Thus, in 2020, the country did not provide a level of self-sufficiency in wheat, legumes, potatoes, grapes, all types of meat and meat products, milk and dairy products, fish and fish products. It is clear from the indicators of other products that in 2020 there was an increase compared to previous years.

While a small part of the demand for beef and dairy products depends on imports, most of the feed needs of poultry and livestock are met through imports. This makes the feeding of animals in the country dependent on foreign currency.

From the figures in Table 2, it is seen that the level of dependency on cereals, potato and poultry meat imports remained high in 2010-2020.

Table 2. The level of dependence of Azerbaijan on imports of certain types of food products in 2010-2020, as a percentage

Name of products	2010	2015	2016	2017	2018	2019	2020
Cereals	43,5	35,5	36,5	33,7	25,9	32,7	32,7
Potato	6,8	14,8	18,1	16,5	9,2	12,2	12,2
All kinds of vegetables	7,0	3,4	5,1	3,8	-	-	-
Fruits and berries	22,4	9,6	12,6	12,7	-	-	-
Milk	29,6	16,0	12,6	14,6	13,3	13,7	13,7
Beef	5,5	8,8	6,6	13,8	14,9	13,9	13,9
Mutton	0,3	0,7	1,3	2,4	11,9	2,4	2,4
Poultry	29,8	1,4	20,9	20,5	24,1	25,4	25,4
Egg	2,1	0,3	1,2	0,0	-	-	-

Source: [222]. www.azstat.org – official website of the Statistical Committee of the Republic of Azerbaijan

According to the data in the table, in 2018, 2019 and 2020 the country's population depended on food imports, except for vegetables, fruits and berries and eggs.

Considering the urgency of healthy food ration and calorie intake in today's world, reducing dependency on imports and providing the population with quality food products through local production should be a priority. Analysis and research in this direction should focus on the environmental safety of a balanced diet.

In this regard, professor B.H.Atashov's opinion is interesting. He notes: *“Not only quantitative indicators, but also quality parameters of food products play a decisive role in ensuring a healthy lifestyle and*

creating conditions for their longevity. In this sense, a national strategy should be implemented for the ecological safety of consumed food”⁶.

Factors that characterize the economic situation of the country and affect the capacity of the market as a whole are of particular importance in food security. These include economic indicators such as the volume of gross domestic product and national income, the volume of gross product and national income per capita, the country's rate of economic development, price level, inflation rate, unemployment rate, access to credit, investment in the country's economy and etc.

Analyzing influence of population incomes on the volume of agro-food products is very important from the point of view of marketing research.

Economic analysis of the agrarian consumer market allows solving a complex of analytical problems.

Ensuring food security in the country is possible mainly by increasing local production, improving quality and reducing dependence on imports. Therefore, by analyzing the relationship between the consumer market and food security, we can determine the impact of trade on increasing production.

In fact, the consumer market, which is affected by the sectoral structure of economic development, has a direct impact on key variables such as production, prices, employment and government revenues. In the long term, it also affects the competitiveness of the consumer market, infrastructure development and the expansion of marketing channels and distribution networks.

At present, the volume of the consumer market in Azerbaijan tends to increase in 2015-2019. Thus, in 2019, compared to 2015, the volume of the consumer market increased by about 1.5 times, including the retail trade turnover by more than 1.5 times, the catering turnover by about 1.55 times, and the volume of paid services provided to the population by 28% (Table 3).

⁶ Actual problems of food security / B.Kh.Atashov. - Baku: Elm, - 2005. - 336 p.

Table 3. The main indicators of the consumer market in Azerbaijan

Indicators	2015	2016	2017	2018	2019	2020
Consumer market - in total, in billion manats	34,3	39,2	45,3	47, 8	50,7	47, 9
compared to the previous year, in percent	109,7	100,9	102,2	103,1	103,6	91,9
total, as a percentage	100,0	100,0	100,0	100,0	100,0	100,0
including: retail trade turnover	25,7	30,2	35,3	37,1	39,4	40,2
compared to the previous year, in percent	110,9	101,5	102,5	103,0	103,6	98,7
as a result, in percent	75,0	77,0	77,8	77,7	77,7	83,9
catering turnover	1,1	1,2	1,4	1, 5	1,7	0,8
compared to the previous year, in percent	114,0	100,1	103,4	106,8	106,7	45,4
as a result, in percent	3,2	3,1	3,1	3,2	3,3	1,7
paid services provided to the population	7,5	7,8	8,6	9, 1	9,6	7,0
compared to the previous year, in percent	105,1	98,9	101,2	103,0	103,1	72,1
as a result, in percent	21,8	19,9	19,1	19,1	19,0	14,4

Source: [23], [222]. The table has been designed by the author based on data of the Statistical Committee of the Republic of Azerbaijan

It is clear from the data in the table that in 2020, due to the pandemic in our country, there was a decrease in the size of the consumer market. Thus, due to the restrictions imposed on COVID-19 in 2020, the volume of consumer market decreased by 8.1%, including retail trade turnover by 1.3%, catering turnover by 54.6%, paid services rendered to the population by 27.9%.

To assess the impact of the consumer market on GDP, a correlation analysis of the dependence of the level of consumption of households in the context of GDP, consumer market sectors and regions has been realized.

It is also clear from research that the development of the consumer market has a significant impact on agricultural production. In order to reduce the negative impact on the consumer market in the country's regions, local executive authorities should strengthen the control mechanism to support local producers and to implement antitrust measures, considering the sales interests of large retail chains.

In the third chapter **“Issues of macroeconomic regulation of**

the consumer market in the agricultural sector”, the tools of state regulation of the consumer market in the agrarian sector, prices, taxes and their implementation options, the experience of developed countries in this sector, as well as the mechanisms of price regulation of the consumer market in the agricultural sector have been examined. Also, the importance of state support has been emphasized, the role, opportunities and importance of the price factor in supporting entrepreneurship in the agrarian sector have been assessed and the ways to effectively apply the improved sales system have been researched.

The main purpose of the state regulatory impact on the consumer market is to optimize the needs and interests of market participants and to activate them through the stimulating effects of fiscal, monetary and subsidy policies.

Because economic relations in the agrarian consumer market have been formed in modern times on the basis of completely new principles, the problems arising from each of its stages should be regulated and resolved. These problems include the internal economic relations of the agrarian consumer market, economic relations between the agrarian consumer market and other sectors of the economy, the improvement of the forms of organization of agrarian consumer market enterprises, the establishment of their public associations, the improvement of relations with government agencies and so on. Strengthening the role of the price mechanism and implementing this problem within the agricultural consumer market requires the gradual improvement of the price formation mechanism.

Optimization of the "producer-consumer" route of agricultural products is also important in this regard. Because ‘the general direction of marketing policy in the agricultural sector is to "adjust consumer prices to costs and provide affordable prices for producers”.

We consider it necessary to take the following measures in order to establish an improved sales system, or rather a system that balances the interests of the “producer-consumer”:

- 1) The state should regulate prices in some areas of the agricultural market, including determining the maximum amount of rent and service fees for storage of products in cold storages at various

trade points - fairs, wholesale centers of agricultural products and retail outlets. The public and agricultural producers should be informed about these prices through the media.

2) Various bureaucratic obstacles to the free access of agricultural products to domestic and foreign markets should be prevented by the strictest administrative measures.

3) In order to increase the direct access of agricultural producers, especially small entrepreneurs, to final consumers, it would be appropriate to establish a network of agricultural sales kiosks covering large areas, based on the example of organizing agricultural fairs. The establishment of kiosks can be organized by local government bodies and municipalities, and it would be appropriate to determine the permit and service fees by the Ministry of Agriculture. To prevent kiosks from becoming a fraudulent network, the Ministry of Agriculture may set up a targeted distribution system at the request of farmers – a system that allows a particular farmer or his representative to trade at each kiosk. The virtual information system also provides the necessary transparency in this area.

4) In order to prevent monopolies in agricultural processing enterprises, wholesale centers, chain stores, etc., it is very important to create the necessary legal framework and implement the strictest administrative measures to prevent the administration, which seriously harms the interests of both producers and consumers.

All this depends on the proper formation of production economic relations in the agro-industrial system and the proper use of advanced means of regulation.

All of these areas require the use of certain economic mechanisms and tools to implement the state's regulatory policy. At the current stage of economic development, the systematic and comprehensive use of economic instruments of state regulatory policy, such as price, monetary, budget, tax, insurance, customs and tariff systems, is one of the main directions that promote the sustainable development of the consumer market.

At the same time, tax relations are of special importance in the development of the agrarian consumer market and the regulation of economic relations in the country. Taxes are primarily assessed as the

most important factor of state regulation of the economy and a source of budget revenues. It is used as a stimulus for the revival of entrepreneurship, the economy of the underdeveloped regions, and the increase of the country's export potential.

The current tax system does not yet fully prevent the outflow of income from the sale of products and services of agricultural consumer enterprises to various channels and the deterioration of their financial situation. In addition, it does not sufficiently ensure the financial interests of workers in the results of production, in increasing production and efficiency.

In our opinion, it would be more useful to centralize taxation in the agricultural consumer market under one item. This will eliminate the complexity, diversity and ambiguity of the tax system, and simplify accounting and statistics, as well as prevent tax evasion, provide the state and local budgets with a stable income, regulate the growth of production and stabilize the financial condition of enterprises. The effectiveness of price regulation and coordination of market mechanisms is largely determined by the new information economy in the context of the development of markets in different countries⁷.

In the economic literature, there are different approaches to the formation of a new economic system of the information society. We can summarize them as follows:

- The application of modern information systems leads to the development of intersectoral relations between commodity producers and other commercial structures;

- In the new electronic environment, the value principle of labor products is changing and this process is determined by a possible information network. In a networked information environment, a number of processes related to the reduction of fixed and marginal costs occur, and the time interval for the transmission of information from the producer to the consumer is reduced;

- The networked information systems increase the activity and interest of employees in joint work, as well as the motivation of

⁷ Гулиев, Э.А. Modern realities and trends of global food security // Russian entrepreneurship. - 2018. - Volume 19. - № 7. - p. 1963- 1978.

managers and marketers. This activity also depends on the results of commercial and entrepreneurial structures.

If we apply these issues to the consumer market of the agrarian sector, it turns out that the analysis of the market and comprehensive information about it are very important for the consumer. According to professor, honored scientist B.Atashov, *“With this information, producers and exporters can adapt to changes in market opportunities in a timely manner. The economist is convinced that there are two elements – 1) market information and 2) the necessary legal framework and market infrastructure) for the conclusion of commercial transactions between producers and consumers in the country’s economy”*⁸.

One of the important issues in the analysis of price changes is to correctly determine the base period. In our opinion, taking into account the ongoing processes in the world economy and the fundamental changes in the development of Azerbaijan over the past 20 years (2000-2019), it would be expedient to adopt the year 2005 (the beginning of the period of economic stabilization) as the base period for the analysis.

In order to determine the impact of changes in prices of agricultural products on the attractiveness of the agricultural sector as a whole and the growth of income of agricultural enterprises, it is necessary to examine the cost dynamics. As a result of the study, it became clear that the basis of costs is material costs. The main share of material costs - 36-59% - is used up seeds and planting materials, mineral fertilizers (10-20%) and payment for services (25-32%).

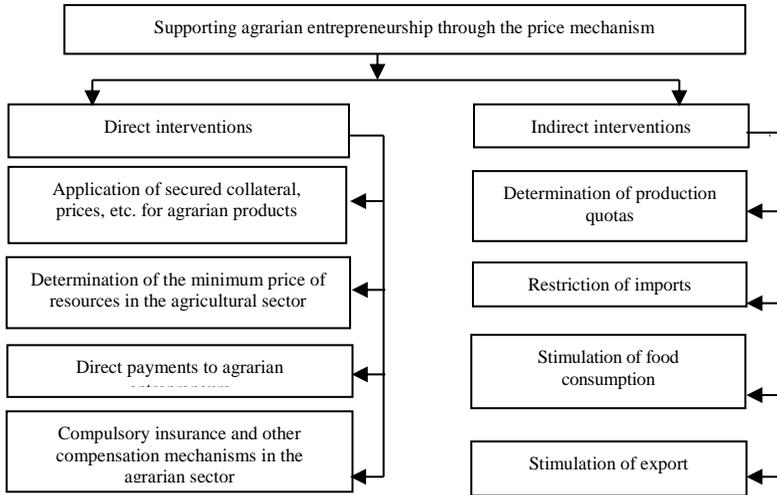
When determining the overall situation for different products, it is appropriate to use the cost of the product instead of price changes for each resource⁹.

The need for price regulation in the agricultural consumer market stems from the need to ensure more general efficiency - private and social efficiency. The system of measures to eliminate price

⁸ Structural and efficiency problems in the agrarian sphere (theory and practice) / B.Kh. Atashov. - Baku: - Cooperation, - 2017. - 536 p.

⁹ Formation and peculiarities of development of agrarian food market of Azerbaijan/ N.J.Gafarov - Belgorod: Russian Economic Bulletin, - 2020. – 54-60 p.

disparities is quite diverse. This system of measures can be schematically described as follows (Scheme 1).



Scheme 1. State support in the agrarian consumer market through the price mechanism (Source: Designed by author)

There is no need for a detailed analysis of each element of this measures system. Problems can be solved with the direct and indirect intervention of the state.

In the **fourth chapter “Means of regulating the economic mechanism of the consumer market in the agrarian sector”**, opportunities for effective use of credit instruments in the regulation and development of the consumer market, and forms and sources of realization of the lending mechanism in the agricultural sector have been indicated. Also, the specific advantages of the leasing system, as well as the importance of the state's credit policy, subsidies and assistance have been emphasized. In this chapter, the current state of the mechanism of lending to the agricultural sector in Azerbaijan has been explicated, information on the average loan allocations of the EDF (Entrepreneurship Development Fund) in various sectors of the economy in 2011-2020, the distribution of soft (concessional) loans allocated by the state by economic sectors, the dynamics of loans for the agrarian sector and the dynamics of short-term and long-term

credit investments in agro-industrial enterprises have been analyzed.

In addition, the importance of insurance in the economic mechanism of the consumer market and the experience of developed countries have been studied, the need for a efficient agrarian insurance system has been substantiated, as well as opportunities for efficient use of investments in the consumer market and sources of attracting foreign investment to the country's agrarian sector have been researched.

The results of the analysis show that as the EDF's assets increase, its share in lending to the agricultural sector also increases.

Research conducted on the EDF report materials shows that the number of projects financed by the state through soft loans was 19.6 thousand in 2011-2015, but in 2016-2020 this figure increased more than 1.8 times and reached 36.2 thousand. During the analyzed period, the share of the agrarian sector in the number of these projects was around 95-97 percent (Table 4).

Table 4. Distribution of projects financed by concessional state loans by economic sectors

	2011-2015 years		2016-2020 years		The ratio of 2016-2020 to 2011-2015, %
	total, thousand pieces	specific weight, %	total, thousand pieces	specific weight, %	
Total	19,6	100,0	36,2	100,0	184,6
including agrarian sector	18,8	95,7	34,9	96,6	186,4
various sectors of industry and others	0,8	4,3	1,3	3,4	145,8

Source: [235] Compiled based on the report materials of the Entrepreneurship Development Fund.

According to the distribution of the amount of soft loans allocated by the state by economic sectors, the figures in 2016-2020 increased by 1.8 times compared to 2011-2015 and amounted to 2418.7 million manat. 67.9% of this amount is in the agrarian sector (Table 5).

In 2019-2020, by means of EDF, 301.9 million manat soft loans were allocated for 2481 investment projects worth 1035.6 million

manat and 8.1 thousand new workplaces were created due to these loans.

Table 5. Distribution of soft loans allocated by the state by economic sectors

	2011-2015 years		2016-2020 years		The ratio of 2016-2020 to 2011-2015, %
	total, million manats	specific weight, %	total, million manats	specific weight, %	
Total	1329,7	100,0	2418,7	100,0	181,9
including agrarian sector	849,9	63,9	1642,2	67,9	193,2
various sectors of industry and others	479,8	36,1	776,5	32,1	161,8

Source: [235] Compiled based on the report materials of the Entrepreneurship Development Fund.

In 2020, compared to 2010, the amount of soft loans for the processing of agricultural products increased by 2.2 times, and the amount of loans for the production of agricultural products increased by 4.4 times and amounted to 15.8 and 56.5 million manats, respectively.

The amount of loans provided by banks to agrarian enterprises in our country is very small, and interest rates are very high.

In pursuance of the Decree of the President of the Republic of Azerbaijan dated August 19, 2019 “On the implementation of the Law of the Republic of Azerbaijan “on Agrarian Insurance” and the establishment of the Agrarian Insurance Fund”, the Cabinet of Ministers of the Republic of Azerbaijan adopted a Decision on “Agrarian Insurance Rules” on October 30, 2020.

Following the implementation of the rules, the risks of agricultural producers have been reduced. They have ample opportunities to eliminate damages and losses, to increase the attractiveness of investment in agriculture, to create a stable business environment in agriculture, to develop agricultural insurance and to regulate the mechanism of state support in this sector.

However, in the current situation, the level of use of insurance services by agricultural enterprises is very low.

The main purpose of the agrarian insurance system is not to

increase the income of insurance companies, but to stabilize the income of agrarian entrepreneurship. We believe that there is a need for fundamental reforms in order to introduce an effective insurance system in the country's agriculture. In this regard, first of all, the best international practice on agrarian insurance should be examined and appropriate options should be applied in Azerbaijan.

In order to create such an important agrarian insurance system, it is expedient to implement the following measures:¹⁰

- Establishment of a compulsory insurance system for agricultural products, through legislative initiatives and amendments;
- Establishment of a Reinsurance Fund for agricultural products in the country;
- Establishing a mechanism that will secure agricultural producers' product loss risks and price conjuncture risks;
- Advertising and awareness-raising activities on the importance and necessity of uninterrupted insurance among agricultural (insured) producers.

According to the dynamics of investments in fixed assets and its structure for the development of the agricultural sector, the volume of investments in the development of the agrarian sector in 2019 amounted to 769.5 million manats. This is 2.2 times more than in 2015. (Table 6).

This growth rate is significantly higher than the growth rate of fixed capital investment in the country in the corresponding period (16.2%).

The share of the private sector in capital investments in agriculture for the analyzed period increased by 14% and increased from 39.1% in 2015 to 53.1% in 2020.

In 2015-2020, the volume of investments in fixed assets of organizations with the participation of foreign capital in the country's economy decreased by 17.8%, and the volume of such investments in industry decreased by 23.2%, but the volume of such investments in agriculture increased by 85.5%.

¹⁰ Features of application of agrarian sector risk insurance mechanism in modern conditions // N.J.Gafarov - Baku: Silk Road journal, - 2021, - №2.

Looking at the structure of investments made in the sectors of the economy of the Republic of Azerbaijan in the last fifteen years, it seems that the share of investments in the agrarian sector is 3.1 percent on average.

Table 6. Investments in fixed assets for the development of the agrarian sector (in million manats)

Indicators	Years					
	2015	2016	2017	2018	2019	2020
Investments in fixed assets, total	15957,0	15772,8	17430,3	17244,9	18539,5	17226,1
growth rate, in percent	88,9	78,3	102,8	95,7	105,5	92,9
Investments in fixed assets for agrarian development, mln. manats	355,5	325,1	617,8	764,4	769,5	520,6
growth rate, in percent	95,8	88,0	177,3	119,7	98,8	67,7
Ratio of asset investments in agriculture to total asset investments, %	2,2	2,1	3,5	4,4	4,2	3,0
including: state, in mln. manats	216,6	253,1	324,1	360,6	358,2	234,8
state, in percent	60,9	77,9	52,5	47,2	46,6	45,1
non-state, in mln. manats	138,9	72,0	293,7	403,8	411,4	285,8
non-state, in percent	39,1	22,1	47,5	52,8	53,1	54,9

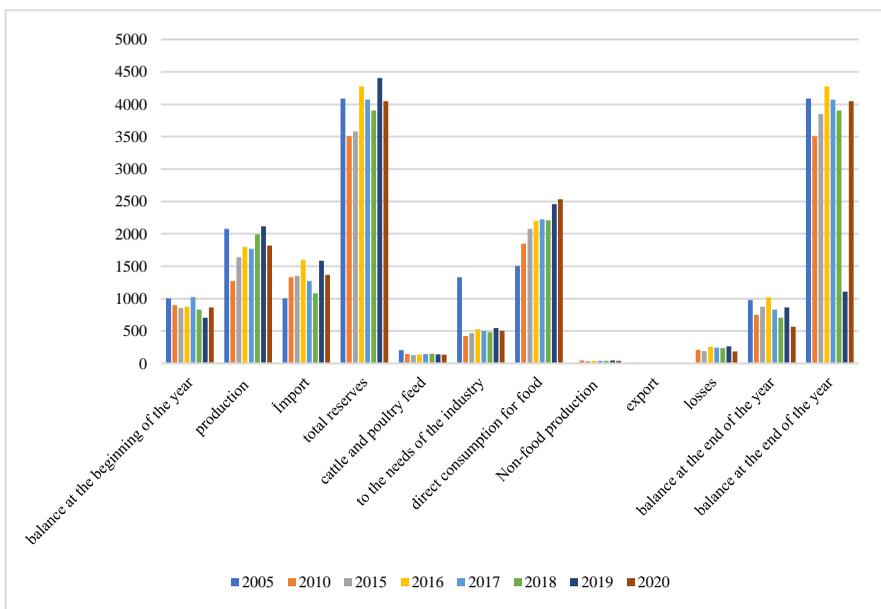
Source: [222]. www.azstat.org – official website of the Statistical Committee of the Republic of Azerbaijan

Attracting investment in the agricultural sector of the Azerbaijani economy requires an appropriate mechanism that really takes into account all the socio-economic, technical, technological, biological and other features of this sector.

In the fifth chapter “Ways to improve the economic mechanism of the consumer market in the agrarian sector and access to international markets”, statistical indicators on import and export of food products in the consumer market environment have been analyzed, ways of state protection and support of the development of the sector have been studied, directions on increasing the competitiveness of consumer market products have determined on the basis of scientific researches. Also, the directions of accelerating the access of consumer market products to the foreign market have been indicated, the importance of expanding agro-parks has been noticed, ways to improve the implementation and management mechanism of green agro-food supply chains in Azerbaijan have been researched and in this direction, international experience has been studied. In this

chapter, the importance of agrarian clusters has been emphasized and a model of the competitiveness of the agrarian sector within the implementation and management of green supply chains has been indicated.

It is useful to review the food balance in the country over the years. While the total import of wheat, which is a strategic product, was 1006.1 thousand tons in 2005, this figure increased by 593.5 thousand tons and reached 1599.6 thousand tons in 2016. Although wheat imports decreased in 2018, there was an increase of 46.6 percent in 2019 compared to 2018. This is not enough to fully meet the needs of the country's population. Although the cultivation area increased by 31.1 percent for the analyzed periods, production decreased by 14.8 percent and imports increased by 26.7 percent due to non-fulfillment of necessary needs (Graph 1).



Graph 1. Wheat stocks and uses (thousand tons) (Source: [222]. www.azstat.org – official website of the Statistical Committee of the Republic of Azerbaijan)

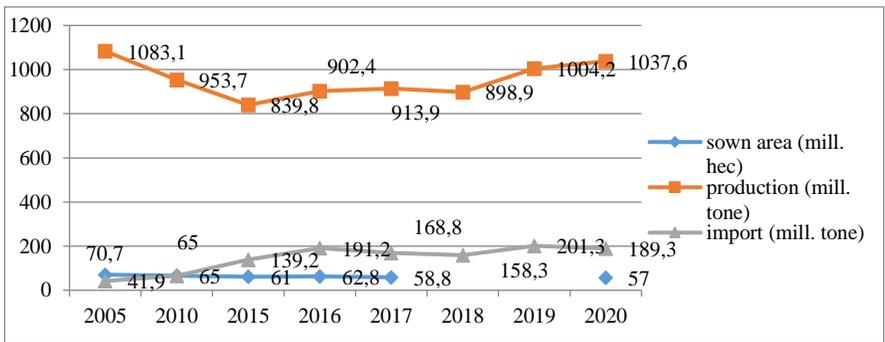
Therefore, we believe that in order to increase production, it is important not only to expand the cultivation areas, but also to increase productivity.

Significant progress was also made in potato exports in 2017 and 2018. In 2019, there was a decrease of 7.4 percent, potato exports from the country fell to 61.8 thousand tons. At the beginning of 2020, the balance was 864.0 thousand tons, and at the end of the year the balance was 567.4 thousand tons.

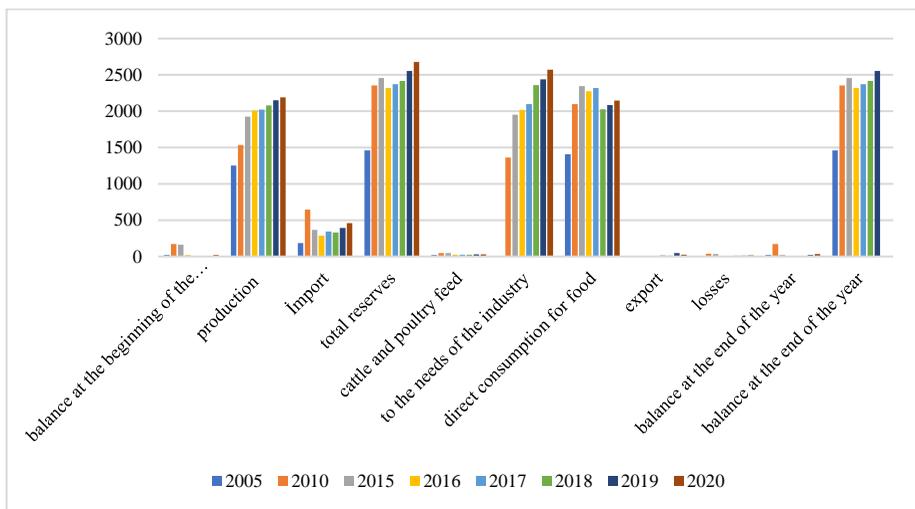
Although there has been a slight decrease in the cultivation areas of potato in recent years, there has been a relative increase in crop production since 2016 (Figure 2).

The main reason for this has been increased productivity. According to the food balance, despite the increase in milk and dairy products production in the country until 2017, there is no decrease in their imports to Azerbaijan (Graph 3).

As can be seen from the food balance data, despite the increase in the production of milk and dairy products in the country by 2020, there is no decrease in their imports to Azerbaijan (Graph 3).



Graph 2. Cultivation area, production and import of potato
 (Source: [222]. www.azstat.org – official website of the Statistical Committee of the Republic of Azerbaijan)



Graph 3. Stocks and consumption of milk and dairy products (thousand tons) (Source: [222]. www.azstat.org – official website of the Statistical Committee of the Republic of Azerbaijan)

The same situation can be observed in 2018-2019. Thus, although milk and dairy products production increased by 6.2 percent in 2019, imports also increased by 14 percent.

In general, the value of total agricultural products in actual prices in 2019 amounted to 7836.7 million manats. Of this, 4085.5 million manats has been spent on livestock and 3751.2 million manats on crop production.

Compared to the previous year, agricultural production increased by 7.2%, including 11.7% for crop products and 3.5% for livestock products. As a result, the share of crop production in agricultural production increased from 45.4% to 47.9% and the share of livestock decreased from 54.6% to 52.1%¹¹.

In the export review compiled by the Center for Economic Reform Analysis and Communication, export indicators for 2017, 2018 and 2019 years has been indicated. According to the indicators,

¹¹ www.economy.gov.az – Official website of the Ministry of Economy of the Republic of Azerbaijan.

Global Export Fruits LLC, Sun Food LLC, Natural Fruit LLC, Azerbaijan Sugar Production Association LLC, P-Agro LLC take the first places in the ranking of non-state exporters in the agricultural sector in 2019. Agrarian food companies, such as Azerpambig Agrarian Industrial Complex LLC, STS-Agro LLC, Azertutun Agrarian Industrial Complex LLC are represented among the state companies engaged in export operations.

In order to increase the export potential of agricultural products in the Republic of Azerbaijan and to bring competitive and high-quality products to foreign markets, it would be expedient to take measures in the following areas:

1. To increase the production of agricultural products through the efficient use of available domestic resources and to improve the mechanism for stimulating local producers.

2. To strengthen incentives (credit, tax, customs, etc.) for the establishment of processing enterprises, the introduction of new technologies and the development of competitive products.

3. To achieve growth in exports by improving the quality of agricultural and agro-industrial products.

Development of export potential, stimulation of import-substituting production, improvement of equipment and technology for high competitiveness and professional development of personnel are among the main directions in improving foreign economic relations in our country.

Intensive production, transportation, storage and sale of agricultural products are largely due to the increase in the number of currently operating agro-parks and their proper functioning.

As a result of digitalization, the creation and application of the EAIS (Electronic Agricultural Information System) involves the formation of modules covering all business processes from the first stage to the last stage in order to ensure transparency and efficiency. The system has the ability to collect and create Big Data.

Logistics infrastructure needs to be developed as the main locomotive of the implementation and management of green agri-food supply chains. The lack of cooperation between information technology and agricultural producers for the management of modern

warehouses, transport infrastructure and supply chains are negative factors that hinder the development of the sector.

The management system of the green agro-food supply chain in Azerbaijan is characterized by the following features:

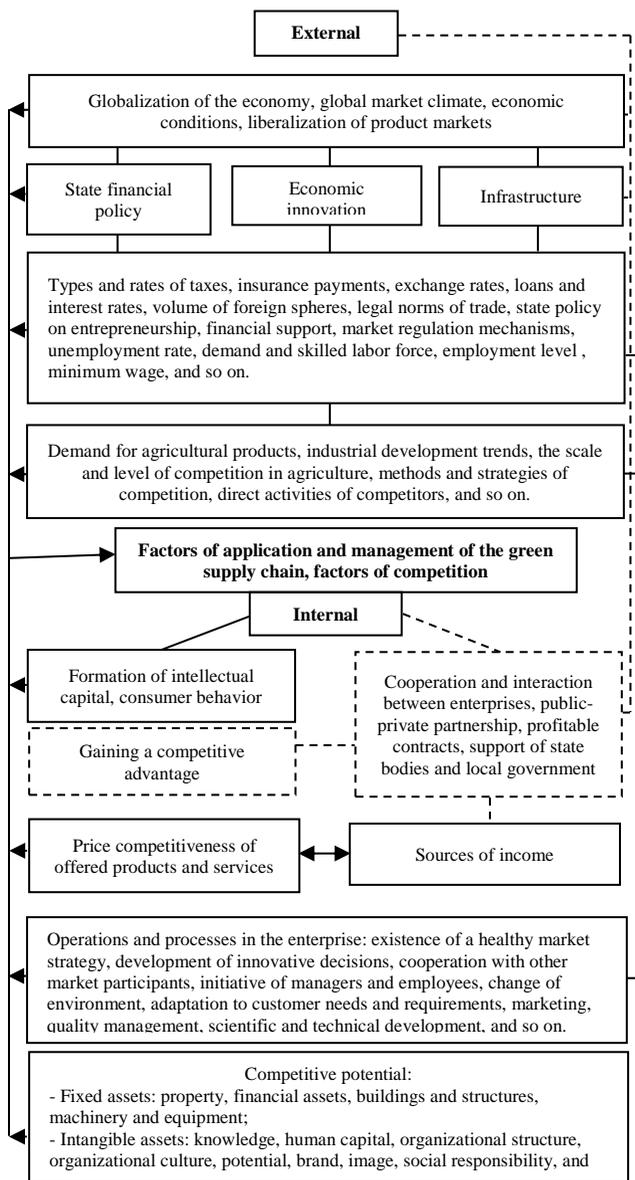
- warehouse infrastructure not suitable for modern conditions;
- deterioration of the road due to overloading of vehicles, which leads to an increase in delivery time;
- non-compliance of logistics processes with modern requirements and standards;
- poor cooperation of farmers to form sales lots and reduce logistics costs.

The creation of agrarian clusters is one of the ways to develop logistics infrastructure as a factor in the implementation of advanced supply chains in the agricultural sector. In order to form a market for high quality agro-food products, it is necessary to develop and strengthen service structures (refrigeration, packaging and transport), as well as to apply the philosophy of green supply management, to examine the quality of marketing services and goods and to develop the activities of intermediary firms that provide information to commercial banks serving commercial enterprises and insurance companies.

Based on this research, an agrarian enterprise competitiveness model for the application and management of green supply chains has been developed (Scheme 2).

There are the following needs to create and develop agrarian clusters:

- To implement green supply chain management at all levels of management;
- To develop consumer cooperation in rural areas and to apply agrarian contracts guaranteeing the sale of manufactured products;
- Establishment of large-scale production and distribution structures should be based on the construction of cluster networks based on production and service cooperatives, farms, and small agricultural enterprises. This will allow more efficient use of resource potential;
- To improve information support in supply chain management;



Scheme 2. Competitiveness model of Agrarian enterprise within the framework of application and management of green supply chains (Source: *Designed by author.*)

- To improve consulting services as a mediator between scientific institutions and manufacturers that allow more efficient use of the investment potential of the industry, promote the application of advanced technologies, and the production and sale of environmentally friendly products.

During the pandemic in Azerbaijan, state control has been strengthened and preventive measures have been taken to ensure the safety of the food chain and these processes are still being taken.

We believe that in the near future, improving the development of green agro-food supply chains through state regulation, the effective organization of their management mechanism and the high position of products at the international level should continue to be regarded.

As the problems of ensuring the efficiency and safety of the food chain are quite relevant, many problems should be addressed, especially in the post-pandemic period.

Some of the main results, new scientific approaches, suggestions and recommendations

1) The economic mechanism is the most active element of the economic system, including the agrarian sector, which has the function of influencing the sustainable development in the required direction. It covers economic mechanisms such as price, budget, credit, tax, insurance and customs tariff systems. This elucidation forms the basis of the functioning of the economic mechanism in the economic system and emphasizes its detailed expression. The most important function of economic mechanisms is to create favorable conditions for the development of the agrarian sector and to ensure large-scale reproduction. Subsystems of the economic mechanism are of great importance in regulating the relations between the subjects of the agrarian market. Each of the subsystems has sufficient power to influence the financial and economic situation of agricultural producers and agro-industrial enterprises and to achieve equivalence. These mechanisms have an important role in solving the problems that hinder the sustainable development and efficient functioning of the consumer market.

2) Based on the comparison of the main theories and concepts of the formation and functioning of the consumer market, a number of directions of development and organization have been determined:

- improvement of the economic process, which allows to increase the efficiency of interaction between market structures and economic entities of the country's economy;
- organization of services based on legal and commercial-economic practices and determination of the most suitable forms of economic relations;
- formation of a market system based on the priority of consumer interests;
- selection of efficient channels of trade turnover according to the type of consumer market;
- optimization of logistics, material, information and financial processes and development of material and technical base of consumer market infrastructure;
- selection of priority areas for the development of the consumer market on the basis of identified factors affecting development.

3) Considering the following aspects in the development of the agrarian consumer market is useful in the dynamic development of the industry:

- continuous strengthening of the legal framework for the deepening and development of agricultural production and control over the implementation of existing mechanisms for the implementation of existing laws;
- stimulating local agricultural producers and protecting the internal market;
- maximum provision of the domestic market with local agricultural products
- creating state supply and reserve fund for strategic agricultural products;
- continuous improvement of the tax and customs system to protect the agricultural market from negative external influences.

4) To ensure the interests of producers in the consumer market and in the field of food production, it is expedient to take a number of measures on a regular basis:

- facilitating access of producers to domestic and foreign markets;
- further increase in the production of competitive products;
- creating a reliable food supply or improving the existing reserve system;
- minimizing losses during the production, transportation, procurement and processing of products;
- researching the demand for the country's products in international markets;
- establishing an international electronic database to inform local producers in the regions.

5) At the current stage, the main approaches to building and improving infrastructure in the food market include:

- support for modern information support systems, including the development of e-commerce systems for food products;
- enabling local producers to interact with wholesalers in order to reduce costs in the sales system and increase the competitiveness of local agricultural enterprises;
- wide application of logistics systems to minimize the costs of formation and use of food stocks;
- development of marketing activities of commodity producers and processing enterprises to expand the production and sale of products.

6) In modern conditions, the organization of agricultural producers to deliver their products to commercial organizations without intermediaries and to sell them in other consumer markets is not yet at the required level. This is mainly due to several reasons:

- lack of opportunity for agricultural producers to sell their products without intermediaries;
- monopolization of agricultural markets and fairs by intermediaries (brokers).
- insufficient supply of wheat, meat and dairy products for general needs, although of strategic importance for the state;

- costly and perishable agricultural products, inability to bring high profits from sales, high additional processing and transportation costs.

7) The effectiveness of a comprehensive study of the consumer market depends on the available statistics and other information about market participants. Consumer information as the most important subjects of market relations is more important. When there is no demand for goods by consumers, other actors of the consumer market lose their importance in the system of relations. It is very important to have information about preferred places to buy goods and services, frequency of purchase and other consumption conditions.

8) State regulation of the agrarian sector is a set of effective interventions by the state in the production, processing, sale of agricultural products and in the production-technical and material-technical system of raw materials, food and agro-industrial production. It provides a reliable food supply directly from the country's domestic sources. The main purpose of state regulatory influence on the consumer market is to optimize the needs and interests of market participants and to stimulate them through fiscal, monetary and subsidy policies.

9) Implementation of the following measures to create an improved sales system for the sale of agricultural products, or rather a system that regulates the balance of "producer-consumer" interests is useful:

- In some parts of the agricultural market, prices must be regulated by the state if necessary. These prices should be announced to the public and agricultural producers through the media;

- Various bureaucratic obstacles to the free access of agricultural products to domestic and foreign markets should be prevented by strict administrative measures;

- A network of agricultural sales kiosks, which can cover a large area, should be established by the Ministry of Agriculture, based on the example of the organization of agricultural fairs to increase the direct access of agricultural producers, especially small entrepreneurs, to end consumers.

- Improving the necessary legislative framework to eliminate monopolies in agricultural processing enterprises, wholesale centers, chain stores and to prevent administration that seriously harms the interests of both producers and consumers should be kept in focus.

10) There is a price difference in the country market for agricultural products, especially crop products. The price mechanism does not fully meet the requirements of market relations and does not stimulate the necessary level of development of the industry. The solution to the problem is to prevent monopolies in many fields, especially in imports and some industrial production, to improve the organization of agricultural products trade, especially retail trade, to accelerate the formation of sales cooperatives, and to strength state aid to the agricultural sector. In this respect, it is even more important that state aids to the agricultural sector are implemented on a scientific basis.

11) Considering the difficulties experienced in the agrarian sector, especially in the agriculture, a number of options for taxation are offered. We believe that it would be more beneficial to centralize taxation in the agricultural consumer market on the basis of standard articles. This will eliminate the complexity, diversity, ambiguity of the tax system, simplify accounting and statistics, as well as prevent tax evasion, provide state and local budgets with stable revenues, and affect the regulation of production growth and the stabilization of the financial condition of enterprises.

12) At the current stage of economic development, the existing lending mechanism in the agrarian sector does not create the necessary conditions for socio-economic development, and the incentive quality of lending to commercial banks is weak and does not meet the requirements of economic development. The level of risk in loans given to the agrarian sector is high. According to the specifics of the agricultural sector, credit investments should be mainly long-term in order to increase material and technical provision. Agricultural entrepreneurs in all economic regions of the country should be provided with long-term bank loans at low interest rates.

All necessary measures should be taken to reduce the interest rates of entrepreneurship loans. The Central Bank should implement a

credit policy that provides incentives for commercial banks to provide soft loans for entrepreneurial purposes.

13) The main purpose of the agrarian insurance system is not to increase the income of insurance companies, but to stabilize the income of agrarian entrepreneurship. In order to establish such an agricultural insurance system, it is necessary to implement the following measures:

- establishing a compulsory insurance system based on legislative initiatives and changes in agrarian products;

- adding many types of fruit and vegetables, animals and poultry to the product range, of which 50% of the insurance premium is covered by the state budget;

- improving the rules of insurance of agricultural products and repeatedly reducing insurance rates;

- realization of reinsurance in the international markets and establishment of the Reinsurance Fund for agrarian products in the country;

- establishment of a mechanism to insure agricultural producers against both product loss risks and common price conjuncture risks.

14) The state policy on attracting investments in agriculture should be based on the need to address the target policy, such as the use of limited budget funds for the development of this sector. This task can be accomplished in two ways using different regulatory methods.

- 1) direct - creation of public investment infrastructure, subsidies for certain sectors of agriculture, state funding of targeted republican and regional programs, state support for preferential lending of priority investment projects of economic entities;

- 2) indirect (state regulation) - enabling economic, legal and organizational investment processes.

15) In order to increase Azerbaijan's foreign exchange earnings, it is necessary to export agricultural and agro-processed products. It is especially important that processed products have a large share in exports. To implement all this, first of all, it is necessary to study the foreign market, increase agricultural production and exports, and strengthen the economic security of the agrarian sector in order to

expand economic ties. In the agrarian sector, it would be expedient to provide the following measures in this direction:

- accurate assessment of export potential and development in the field of agrarian sphere;
- determination of the real demand for imports;
- research of development aspects and perspectives of import-substituting spheres;
- inclusion of foreign financial resources in the development of the agrarian sector;
- development of rapid and large-scale agricultural integration mechanisms, and so on.

Also, increasing the competitiveness of local products in domestic and foreign markets is a necessary condition for the sustainable development of the country's agro-food market and ensuring food security. For this to happen, the production of competitive products, the development of entrepreneurial activities and increasing the competitiveness of agro-industrial enterprises should be a priority of the state's economic policy.

16) The results of research prove that the export of agrarian products is an important aspect of interstate integration in the context of globalization. Mechanisms for the effective development of foreign economic relations in the context of market relations, ways to stimulate the agricultural sector and the production of export-oriented products are as follows:

- study of the regularity of production, export and promotion of agricultural products in the conditions of market relations and entrepreneurship formation, international experience in this field;
- systematization of factors affecting the formation of agricultural production and export potential;
- assessment of opportunities for export-oriented agrarian production in the country;
- determination of factors that decelerate production and trends in their development;
- determination of the priority development directions of the country's agrarian market and related foreign trade relations;

- formation of an effective infrastructure to ensure efficient export of agricultural and agro-industrial products.

17) Import duties should be imposed at a scientifically on goods produced in low-productivity industries at the lowest level and other goods more productive for the country or population at a scientifically substantiated level. It is also necessary to set high limits on import customs tariffs that will ensure the economic security of the agricultural-industrial sector to be protected.

18) Supply chain management is a management philosophy. Therefore, the application of green supply chain management technologies and the use of the latest developments in science and technology require government support. Azerbaijan uses the best practices of other countries (for example, China) in the implementation of agricultural modernization programs and cooperates closely with international organizations. The experience of developed countries should be used in this direction.

19) To create and develop agrarian clusters for the development of the green agro-food supply chain, the following are needed:

- implement green supply chain management at all stages of management;

- - to promote the development of small and medium enterprises in order to increase employment in production processes and improve the welfare of the population. Budget expenditures should be focused only on areas that can create a synergistic effect of economic growth in this sector;

- to develop consumer cooperation in rural areas and expand the implementation of contracts guaranteeing the sale of manufactured products;

- to create large-scale production and distribution structures and to establish cluster networks based on production and service cooperatives, farms and small agricultural enterprises. This will enable each cluster participant to use their resource potential more efficiently;

- to improve information support in supply chain management;

- to develop consultancy services as an intermediary between scientific institutions and manufacturers that will enable more efficient use of the investment potential of the industry, the application of

advanced technologies, and the production and sale of environmentally friendly products in great demand.

We believe that (especially in the case of the European Union) the competitive advantages of green supply chains will be:

- increase the attractiveness of the processing industry by attracting environmentally sensitive customers;
- increase the profitability of the sector through effective logistics management (transport, warehousing, storage, repair, reduced leisure time and environmental pollution fine);
- minimize waste and apply energy-saving technologies, including waste recycling;
- new agricultural technologies will be implemented, the efficiency of human resource use will be increased and environmental protection will be provided more.

The main content of the dissertation is reflected in the following 22 scientific publications:

1. Factors contributing to the increase of economic efficiency in the agrarian sector. An International Journal of Economics and Entrepreneurship ISSN 1999-2300. Moscow, 2016, №10 (ch.3), p. 902-907. (original in russian)

2. Priority directions of agrarian development. // “Cooperation” scientific-practical journal, Baku, 2017, №1 (44), p.112-115. (original in azerbaijani)

3. Directions of increasing local production in the agrarian sphere // “Cooperation” scientific-practical magazine, Baku, 2017, № 3 (46), p.37-42. (original in azerbaijani)

4. Directions of increasing local production in the agrarian sphere // “Cooperation” scientific-practical journal, Baku, 2017, № 3 (46), p.37-42. (original in russian)

5. Directions of regulation of integration processes in the effective functioning of the agro-food market. Materials of the international scientific-practical conference dedicated to the 70th anniversary of Akif Musayev, professor, Dr. of Economy, corresponding member of ANAS, Baku, October 12, 2017, p. 215-220. (original in azerbaijani)

6. Principles of systematic approach to the formation of the consumer goods market. // Institute of Economics of ANAS. Scientific works. Baku, 2017, №6, p. 203-209. (original in azerbaijani)

7. The main directions of economic regulation of the agrarian consumer market. // Scientific-theoretical journal "Scientific Works" of the Scientific Research Institute of Agricultural Economics. Baku.2017, №4, p. 123-132. (original in azerbaijani)

8. Development problems of agrarian consumer market. // "Cooperation" scientific-practical journal, Baku, 2018, №1 (48), p.109-117. (original in azerbaijani)

9. Scientific and theoretical bases of formation and development of the economic mechanism of the agrarian consumer market. // Scientific-theoretical journal "Scientific Works" of the Scientific Research Institute of Agricultural Economics. Baku, 2018, № 2, p. 21-33. (original in azerbaijani)

10. Ways to improve production and economic relations in the agro-food sector in modern conditions. Materials of the international scientific-practical conference dedicated to the 100th anniversary of the Azerbaijan Democratic Republic. Baku, 1-2 June 2018, p. 379-382. (original in azerbaijani)

11. Methodological approach to the economic study of the consumer market development. // "Azerbaijan Agrarian Science" scientific-theoretical journal. Baku, 2018, №5, p. 15-22. (original in azerbaijani)

12. . Improving measures for state regulation of the consumer market in the agrarian sector. Materials of the international scientific conference dedicated to the 60th anniversary of the Institute of Economics of ANAS. Baku, 2018, p.391-394. (original in azerbaijani)

13. Foreign experience in the formation and functioning of the economic mechanism of the agrarian sector. // "Azerbaijan Agrarian Science" scientific-theoretical journal. Baku, 2019, №4, p. 13-20. (original in azerbaijani)

14. Development of the consumer market in the agricultural sector and directions of its expansion. // Scientific-practical journal

"Cooperation", Baku, 2019, № 04 (55), p. 111-120. (original in azerbaijani)

15. Ways to ensure the consumer market of Azerbaijan with agro-industrial goods. International scientific-practical conference on "Actual problems of economics, region, management and law." Poltava, September 16, 2020 p. 26-28. (original in russian)

16. Barriers and Drivers of the Implementation and Management of Green Agri-Food Supply Chains in Azerbaijan. // International Journal of Supply Chain Management (IJSCM). Exceling Tech Publishers, Великобритания, Лондон, 2020, Vol 9, № 4, 527-535 p. (original in english)

17. Formation and peculiarities of development of the agrarian food market of Azerbaijan. // Russian Economic Bulletin. ISSN 2658-5286 Belgorod, 2020, p.54-60. (original in russian)

18. Price mechanism to ensure the competitiveness of export-import operations. // "Scientific collection interconf". Science and practice: implementation to modern society. Manchester, Great Britain. december 2020, №3 (39), c. 1580-1590. (original in russian)

19. Necessity and directions of facilitation of access of agrarian producers to the international consumer market. I International scientific-practical conference "Theory and practice of science: key aspects". Rome, Italy. February 19-20, 2021 №42, p. 1001-1009. (original in russian)

20. Complex assessment of factors determining the dynamics of prices in the agro-food market. // Economics and Power 2021, №5, Kiev, p.62-69. ISSN 2306-9806. (original in russian)

21. Methodological issues of determining the integrated indicators of the economic mechanism in the agrarian sector. // Journal of Agricultural Economics. Baku, 2021, №2.p.44-50. (original in azerbaijani)

22. Implementation features of agrarian risk insurance mechanism in modern conditions. // Silk Road Journal. Baku, 2021, №2.p.78-87. (original in azerbaijani)

23. Improving the use of existing investment potential in the agricultural sector. // Statistical news scientific-practical journal. Baku, 2021, №3.p.16-25. (original in azerbaijani)

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