

Development of Agro-Associations in Jordan: Significant Factors, Constraints and Recommendations

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Abstract

Nowadays, there are diverse cooperatives in Jordan, including agricultural sphere. Nevertheless, there is not yet a fully developed cooperative sector in the Jordanian agro-industrial production system. The *importance* of the research lies in the fact that it brings up to date knowledge concerning agricultural cooperatives in Jordan. The *purpose* of this article is to study such a problem as stimulating and constraining factors of development of cooperation in agricultural sphere. The tasks of the study are to reveal the essence of the concepts of “cooperation” and “integration”; identify factors that stimulate or constraint the development of cooperation and integration in agriculture; study the current state of cooperation and integration in agriculture in Jordan, to identify problems hindering its development; develop priority measures to support agricultural cooperatives in Jordan. The *methodology* of the research includes comparative and factor analysis. Having conducted factor analysis, we may *conclude* that Jordanian cooperative and integration relations in agricultural sphere are mainly characterized by the restraining development factors. The shortage of investments, the lack of financial resources, insufficient infrastructure and the lack of cooperation constraints the agro-sector’s ability to benefit from economy of scale. Further *research proposal* is wider development of supportive measures for agricultural cooperatives in Jordan.

Keywords: Cooperatives, Agro-Associations, Stimulating And Restraining Factors, Financing, Constraints, Recommendations, Jordan

Introduction

Increasing the efficiency of production makes it necessary to use a variety of factors – natural, economic, labor, organizational, etc. Among the totality of factors, organizational and economic are of priority importance, which primarily include cooperative and integration relations. The study of the experience of economically developed countries (Belgian..., 2022; Cooperatives..., 2023; Economic..., 2021; Mapping..., 2020; Moraru, 2018) shows that cooperation and integration of business entities along the chain of “production-sale” of agro-industrial products allows to concentrate resources and help producers to obtain the

performance targets set by business plans. This is due to the fact that cooperation and integration contain unlimited potential for improving the organization of production and the realization of economic opportunities.

At the same time, despite the wide range of theoretical and applied research carried out (Bijman et al. 2012; Chiurciu et al. 2022; Frey, 2020; Frey, 2022; Hansen, 2020; Kaza, 2018; Pham, 2022), many actual *problems* of cooperation and integration remain insufficiently studied. These include, first of all, the conditions for the formation and development of cooperation and integration in a market economy; factors affecting the effectiveness of cooperation and integration in new conditions; principles and functions of sustainable development of cooperative integration processes in market conditions; approaches to building a stimulating organizational and economic mechanism of cooperation and integration; methods of corporate management of the production and sales activities within the framework of cooperative and integration structures; mechanisms for preventing monopolization of the activities of cooperative associations, etc. The solution of these issues is important both for the theory and for the practice of effective management, allows for the sustainable progressive development of agro-industrial economy. These issues determine the *relevance* of the study.

The *purpose* of this article is to study such a problem as stimulating and constraining factors of development of cooperation in agricultural sphere. The specific *tasks* of the study are: (a) to reveal the essence of the concepts of “cooperation” and “integration”; (b) to identify factors that stimulate or constraint the development of cooperation and integration in agriculture; (c) to study the current state of cooperation and integration in agriculture in Jordan, to identify problems hindering its development; (d) to develop priority measures to support agricultural cooperatives in Jordan.

The essence and factors of development of cooperation and integration

Cooperation is a form of labor organization in which a certain number of business entities jointly participate in one or more, but related processes (production, processing, sale of products, etc.). Moreover, different entities can maintain their legal and economic autonomy (Gusakoff, 2008).

Integration has the peculiarity that it represents a closer association of economic entities, often with the loss of legal independence, based on the mutual benefit of the final results. It consists of expanding and deepening production and technological ties, sharing resources, pooling capital, creating common conditions for economic activity, removing various administrative and organizational barriers (Vorob'ev, 2013).

The analysis of scientific literature allows us to identify the following factors that contribute to the development and constrain the development of cooperation and integration in agricultural sphere (Afanaseva et al. 2021; Arayesh, 2011; Egorov et al. 2022; Mal'ceva, 2013; Rodionova, 2009; Tur'yanskij, 2010).

Positive factors:

1. Stable market demand and favorable market conditions for the promotion and sale of products. For the effective functioning of integration and cooperative associations, the offer must meet the interests of consumers;
2. Stable relations between partners (suppliers of resources, manufacturers) and the availability of long-term contracts for the supply of products and resources. The image of an agro-association depends on strong partnerships;

3. Sufficient initial capital, availability of qualified specialists and managers, availability of main and auxiliary enterprises along the technological chain of product promotion from manufacturers to consumers;
4. Optimization of production costs in accordance with sales prices. Optimization of costs should not lead to their excessive reduction in order not to hinder the growth of production volumes, product range and quality. This will ensure the sustainability of the income and profit of an agro-association;
5. Improvement of the process of production and marketing of products throughout the technological chain, formation of economic opportunities for expanding the scope of economic activity, diversification of production, development of new sales markets;
6. The ability to quickly analyze and anticipate changes in market conditions, the ability to quickly adapt production to consumer demand;
7. The ability of a cooperative-integration association to create a resource “safety margin” (production, financial, sales, supply, marketing). In the conditions of the complication of market conditions and the appearance of temporary adverse circumstances, this “margin of safety” will ensure the stability of production;
8. The ability of an agro-association to use any favorable opportunities to strengthen its economic position (scale effect of production; optimal ratio of specialization, concentration, diversification and synergy of production; prompt supply of products; price regulation; leveraging; association with partners, etc.);
9. The existence of a regulatory framework that encourages the creation of an agro-association.

Negative factors:

1. Lack of motivation in the work of an agro-association and a strong financial and economic apparatus (remuneration and bonuses, participation in profits);
2. The lack of a clear specialization of production and sales, the lack of priority areas of concentration of capital and resources. Fragmentation of funds;
3. The absence of a leader, a well-coordinated team of managers and qualified personnel in all areas of management;
4. Insufficient product range, production of low quality products, which leads to overstocking, freezing of working capital, inability to support the further reproduction process and, accordingly, dissatisfaction with consumer requests;
5. The lack of a sufficient number of internal structures and divisions of the main and auxiliary profile, which makes it impossible to build a continuous technological chain of product promotion and make the cooperative integration association self-sufficient;
6. The lack of sufficient scale of production and marketing of products, which prevents the formation of income and profit for the sustainable development of the production process;
7. The excessive number of suppliers of products on the market forces them to act in conditions of increased competition, reduce product prices, and incur losses up to bankruptcy;
8. The inability to ensure the innovative development of production, the difficulty of access to economic resources, the low ability to self-invest – all this does not allow to occupy a stable niche in the market infrastructure;
9. Absence of a clear strategy and policy for the development of an agro-association, as well as detailed business planning.

Thus, an assessment of the factors contributing to the development and hindering the development of cooperation and integration allows to conclude that cooperation and integration are similar concepts of the same unifying processes – consolidation of opportunities, interaction of resources, consistency of corporate policy on asset management.

At the same time, we have established that cooperation is a process of economic interaction between enterprises and commodity producers regarding the consolidation and concentration of resources, labor and capital in priority areas of management, which can have a variety of forms and types, cover all types of economic activity, spread both horizontally and vertically, provide for maximum efficiency of economic activity to ensure the required independence of enterprises and commodity producers (Skoropanov et al. 2011).

Integration is a kind of cooperation, which has various forms of concentration of resources, labor and capital in economically advantageous areas of management, has a pronounced vertical distribution, causing a restriction of the degrees of freedom of the business entities included in the association in order to promote products along the technological chain from the grassroots production links to the final consumers of finished products in order to maximize the total efficiency of the economic activity of the entire association.

Consequently, the factors contributing to the development of cooperative-integration relations and hindering their sustainable functioning, allow us to know the true nature of cooperative-integration relations and the conditions of their functioning, to respond in a timely manner to emerging contradictions when achieving the target result.

Current state of agro-associations in Jordan

Jordan is a country with extremely limited natural resources and great water scarcity. Agricultural land in Jordan is only 11.6 percent of the total land area, of these 8.1 % is agricultural irrigated land (data for 2020 year). Agriculture's direct contribution to GDP has been around 4.5 % in the last decade. The country faces challenges in achieving progress related to sustainable agriculture and food security. The development of agricultural sphere is a strategic goal to provide *food security*, ensure *employment in rural and remote areas*.

Jordanian farmers suffer from excessive *soil salinity*, *water scarcity* and *the problem of nutrient*. In 2014 the Agricultural Cooperation for Development program (AC4D) has been launched in Jordan Valley. The aim of the program is to help farmers to overcome these problems. Different technologies, like, for example, large-scale hydroponics, combined with low cost implementation mechanisms have become available for local farmers.

Cooperation in the development of agriculture in Jordan is also important. Jordan Cooperative Corporation together with the International Labor Organization launched the National Cooperative Strategy (2021-2025) with the aim to develop cooperative relations in Jordan. Nowadays, there are diverse cooperatives in Jordan, including agricultural sphere. However, there is not yet a fully developed cooperative sector in the Jordanian agro-industrial production system, represented by structures operating on the basis of principles proven by world practice. Even though there were reforms in 2016–2018, the *access to finance* for Jordanian farmers is still one of the major obstacles for the growth of the agricultural sector. In this regard, it should be noted that the Agricultural Credit Corporation (ACC) is the main official source specializing in financing of agricultural activities (Table).

Table represents the latest data on credits granted by the agricultural lending institution by fields of agricultural activities, terms (dependent on a formula for the interest rate computation) and gender.

Table

Loans granted by the agricultural lending institution in 2020, JOD

	Reconstruction and exploitation of agricultural lands	Development of animal production	The development of water sources and the use of modern	Manufacturing and agricultural marketing projects	Projects of agricultural production	Projects of mechanization, modern machinery	Rural finance program	Total **
Fields	4277638	12094417	7436732	7619533	3873800	1036300	2371700	38710120
Terms*	Utility	Long-term		Medium term		Short-term	Seasonal	38710120
		1143500		25822760				
	Murabaha	Medium-term and long-term				Short-term		
		7228000				3873800		
Gender	Females 7848287				Males 30861833			38710120

Source: Compiled by the author based on the Open Government Data License (Loans Data, 2021)

Notes:

* Loan types in ACC are interest rate formula and Islamic Murabaha formula

** Number of beneficiaries are 6434 in 2020.

Table shows that the number of fields for credit of agricultural activities in Jordan is rather diversified with the predominance of the interest rate terms (71.3 % of the total loans granted) versus Islamic Murabaha terms (28.7 % of the total loans granted). However, despite some financial support, farmers still bear a large financial burden associated with agricultural sector's activities. Additionally, the *lack of cooperation* constraints the agro-sector's ability to benefit from economy of scale.

The shortage of investments, the lack of financial resources and *insufficient infrastructure* (for scaling, transportation, sorting, packaging, etc.) results in low quality control of Jordanian agricultural products, especially fruits and vegetables. Besides insufficient number of modern facilities, many of them are *located inconveniently*, being far away from the markets, *not fully automated* or *outdated*. Those facilities are mainly dedicated for certain kinds of crops belonging to large farms. Exported agricultural products are inspected by the Ministry of Agriculture and have compulsory health certificates. However, *quality standards are inconsistent* with consumers' requirements.

As another problem, that should be mentioned, the situation with *refugees* in Jordan is very alarming. Their presence creates additional environmental burden and worsens *food security* issues in the Kingdom. Syrian refugees residing in remote areas of Irbid and Mafraq (north of Jordan) are involved in agricultural products collection in facilities installed by the Italian

Cooperation, aimed to support the agro-sector in environmentally stressful and water scarcity areas. International donor organizations try to contribute to decreasing the environmental stress caused by refugees but “a drop in the ocean” is these efforts.

The study of the legal norms and practices of the functioning of agricultural cooperatives in Jordan made it possible to identify the main *problems* hindering their development:

- Insufficient awareness of agricultural formations and the population in matters of cooperation, misunderstanding of the advantages of cooperation, as well as the mechanism of its functioning;
- Poor development of agricultural marketing cooperatives;
- Lack of sufficient production resources necessary to establish effective management;
- Insufficient raw material base to load facilities;
- Inefficiency and insufficiency of state support and state regulation of agriculture;
- Insignificant financial support of the state for agricultural cooperation;
- High bank interest rates and unavailability of preferential loans due to the high collateral rate;
- High cost of agricultural production;
- A significant reduction in the rural population, a serious shortage of qualified specialists and managers;
- Low professional training of management personnel and lack of technologists;
- The constantly deteriorating state of the social infrastructure of rural areas, the impossibility of its support by economically weak agricultural enterprises, including production cooperatives.

Having conducted factor analysis based on criteria from the Table, we may conclude that Jordanian cooperative and integration relations in agricultural sphere are mainly characterized by the negative (restraining development) factors. The support for agricultural cooperatives by the government is rather declarative.

In this regard, it is important to emphasize that the *absence of the necessary legislation and institutional framework* (criterion 9 from the list of “negative factors”) creates certain *advantages* in Jordan for *large agro-associations* that would almost not feel economic restrictions. The favorable situation for the corporate sector is formed due to cheap labor in rural areas, the absence of serious obstacles to entering and exiting agricultural production, weak and low efficiency of antimonopoly legislation. Also, the availability of its own financial resources is a weighty argument in the relationship of agricultural holdings with creditors and investors.

Based on the above, *measures* are proposed to support agricultural production cooperatives, among which *priority* ones are identified:

- ✓ Legislative recognition of the priority role and place of agricultural production cooperatives in the economy and social sphere of rural areas;
- ✓ Strengthening the material and technical base of agricultural production cooperatives;
- ✓ Involvement of agricultural production cooperatives in agricultural consumer cooperation;
- ✓ Taking measures to strengthen control over the activities of agricultural production cooperatives and protect the rights and legitimate interests of their members.

Also, farmers’ unions together with the Jordan Cooperatives Corporation may help to optimize agro-sector’s productivity and efficiency, as well as to improve employment situation in rural areas.

Conclusion

To sum up, the main distinguishing features of cooperation and integration are that cooperation is the interaction of commodity producers on the basis of voluntary consolidation of labor, resources and property, based on the economic mutual benefit of legally independent enterprises and organizations (commodity producers). The integration is a stricter organization of commodity producers not only on a voluntary basis, but also on the basis of synergy the whole set of management factors, including the formation of a unified management (administrative), service, sales and regulatory systems. In the first case, it is more an economic association with a certain autonomy of legal relations for labor and resources, in the second – more organizational and economic consolidation with a targeted rejection of the autonomy of the constituent parts and the formation of an integral economic mechanism.

The factors contributing to the development of cooperative-integration relations and hindering their sustainable functioning, allow us to know the true nature of cooperative-integration relations and the conditions of their functioning, to respond in a timely manner to emerging contradictions when achieving the target result.

Nowadays, there are diverse cooperatives in Jordan, including agricultural sphere. Nevertheless, there is not yet a fully developed cooperative sector in the Jordanian agro-industrial production system. The access to finance for Jordanian farmers is still one of the major obstacles for the growth of the agricultural sector. The shortage of investments, the lack of financial resources and insufficient infrastructure results in low quality control of Jordanian agricultural products. The lack of cooperation constraints the agro-sector's ability to benefit from economy of scale.

Having conducted factor analysis, we may conclude that Jordanian cooperative and integration relations in agricultural sphere are mainly characterized by the negative (restraining development) factors. The support for agricultural cooperatives by the government is rather declarative. Having applied priority measures for the development of agro-associations, farmers' unions together with the Jordan Cooperatives Corporation may help to optimize agro-sector's productivity and efficiency, as well as to improve employment situation in rural areas.

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