

Инновационная система фермерских кооперативов для оптимизации экспортных возможностей

Бададян Лусине Вагановна[✉]

Донской государственный технический университет (ДГТУ), 344065, город Ростов-на-Дону, страна Россия,
преподаватель кафедры менеджмента и бизнес-технологий ✉ E-mail: l-b-v@bk.ru, ORCID iD: 0009-0008-0865-9199,
Scopus ID: 57213838315

Аннотация. Данная система представляет собой инновационную модель кооперативного объединения фермеров, направленную на оптимизацию их экспортных возможностей. Основная идея заключается в объединении усилий мелких фермерских хозяйств для более эффективного выхода на международные рынки сбыта. **Цель исследования:** данная система представляет собой инновационную модель кооперативного объединения фермеров, направленную на оптимизацию их экспортного потенциала. **Материалы и методы:** в статье рассматривается метод качественного анализа, анализируются вторичные данные, а также статистика по объему экспорта сельскохозяйственной продукции, финансовые отчеты и исследования, используется сравнительный метод оценки эффективности различных кооперативных моделей и их влияния на результаты экспорта, рассматривается метод случайного исследования, изучаются количественные и качественные методы. **Научная новизна:** основная идея заключается в объединении усилий мелких фермерских хозяйств для более эффективного выхода на международные рынки. **Результаты:** неопределенность спроса на продукцию, изменение законодательства, колебания валютного курса и инфляция — все эти аспекты могут оказывать существенное влияние на устойчивость и прибыльность аграрного сектора. Предлагаемые автором меры по снижению рисков включают систематическое проведение маркетинговых исследований для оценки текущих рыночных тенденций, а также внедрение эффективных систем контроля качества на всех этапах производственного процесса. В статье в ходе анализа наглядно видно, что в совокупности принимаемые меры обеспечивают создание благоприятных условий для увеличения доходов от реализации экспортируемой продукции, потенциальных субсидий и дотаций, а также возможности сотрудничества с другими кооперативами.

Ключевые слова: агропромышленный комплекс, государство, поддержка, технологии, прогресс, автоматизированные процессы

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Innovative Farmer Cooperative Association System to Optimize Export Opportunities

Badadyan Lusine Vaganovna✉

Don State Technical University (DSTU), 344065, city of Rostov-on-Don, country Russia, lecturer of the department of management and business technology

✉E-mail: l-b-v@bk.ru , ORCID iD: 0009-0008-0865-9199, Scopus ID: 57213838315

Abstract. This system is an innovative model of a cooperative association of farmers aimed at optimizing their export opportunities. The main idea is to combine the efforts of small farms to more effectively enter international sales markets. **The purpose** of the study: this system is an innovative model of a cooperative association of farmers aimed at optimizing their export potential. **Materials and methods:** the article considers the method of qualitative analysis, analyzes secondary data, as well as statistics on the volume of agricultural exports, financial reports and studies, uses a comparative method for assessing the effectiveness of various cooperative models and their impact on export results, considers the case study method, and studies quantitative and qualitative methods. **Scientific novelty:** the main idea is to combine the efforts of small farms for more effective entry into international markets. **Results:** uncertainty in demand for products, changes in legislation, exchange rate fluctuations and inflation - all these aspects can have a significant impact on the stability and profitability of the agricultural sector. The author's proposed measures to reduce risks include systematic marketing research to assess current market trends, as well as the introduction of effective quality control systems at all stages of the production process. In the article, during the analysis, it is clearly seen that, taken together, the measures taken ensure the creation of favorable conditions for increasing income from the sale of exported products, potential subsidies and grants, as well as the possibility of cooperation with other cooperatives.

Keywords: digitalization, agro-industrial complex, farmers, government regulation, research, economics

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Introduction

In a globalized market and increasing competition, it is becoming increasingly important for farmers to create effective cooperative structures that facilitate the sale of their products beyond national borders. Innovative farmer cooperative systems are a strategically important tool that allows small and medium-sized agricultural producers to pool resources, strengthen their positions in export markets and increase competitiveness.

Cooperation, as a form of association of farmers, offers many advantages. It allows for the optimization of production and logistics costs, sharing experience and knowledge, and integrating into modern digital platforms. These platforms provide access to new markets, which is especially important in an unstable

economic environment and changing consumer preferences.

In addition, the cooperative system supports sustainable rural development, promoting job creation and improving social capital. Farmers, having united in cooperatives, can realize collective purchasing power, which allows them to receive favorable conditions for the purchase of seeds, fertilizers and equipment.

Thus, the system of farmers' cooperatives for export is not only a necessary step to expand their market opportunities, but also an important element for the formation of a sustainable agricultural system capable of adapting to rapidly changing global market conditions. In the following sections, we will consider the key aspects and mechanisms of functioning of such

systems, as well as examples of successful practices based on the example of a number of countries [1].

Methods

The article uses several research methods to analyze the innovative system of cooperative associations of farmers and their impact on agricultural export opportunities. First, a qualitative analysis method is used, which includes in-depth interviews with cooperative representatives, farmers, and experts in the field of agronomy and economics. This approach allows for a multifaceted understanding of the current practices, challenges, and opportunities that farmers face in the process of cooperation and export. Second, an analysis of secondary data is made, including statistics on agricultural export volumes, financial reports, and studies published in scientific journals. This makes it possible to identify trends and patterns in the activities of cooperatives. A comparative method is also used to assess the effectiveness of different cooperative models and their impact on export results. This allows us to compare successful practices in different regions and identify factors that contribute to successful integration into

international markets. In addition, a case study method is used, within the framework of which specific examples of successful cooperative initiatives are analyzed. This approach helps to demonstrate the practical application of theoretical concepts and provides vivid illustrations of the achievement of the set goals. In conclusion, the study combines both qualitative and quantitative methods, providing a comprehensive approach to the study of the cooperative movement and its role in international agricultural trade.

Results

In the context of an unstable economic situation and limited access to resources, cooperation becomes a significant tool that allows optimizing production processes, reducing costs and increasing production volumes. In this context, the presented figure serves as the main visual evidence of the relevance and necessity of implementing an effective cooperation system to achieve the set goals [2].

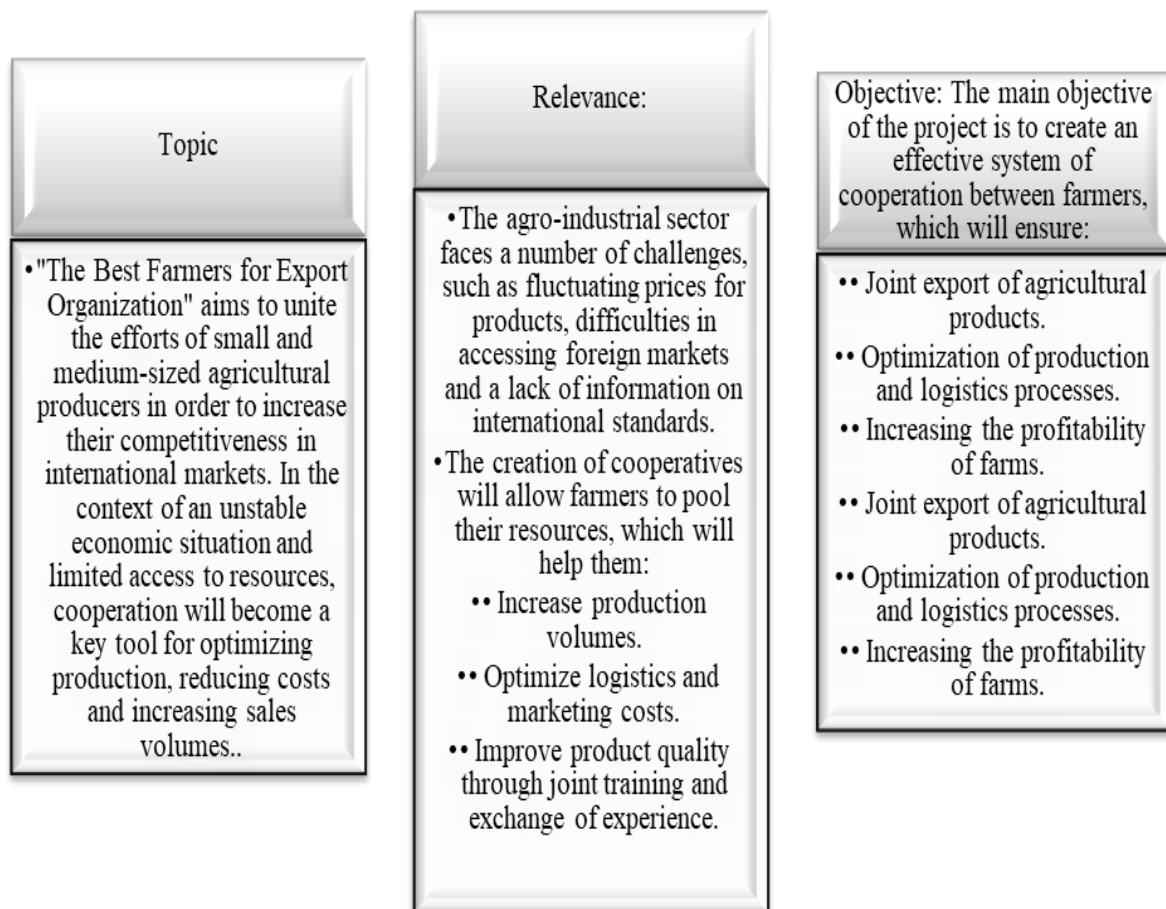


Fig. 1. Farmers' cooperation as a way to successful export of agricultural products

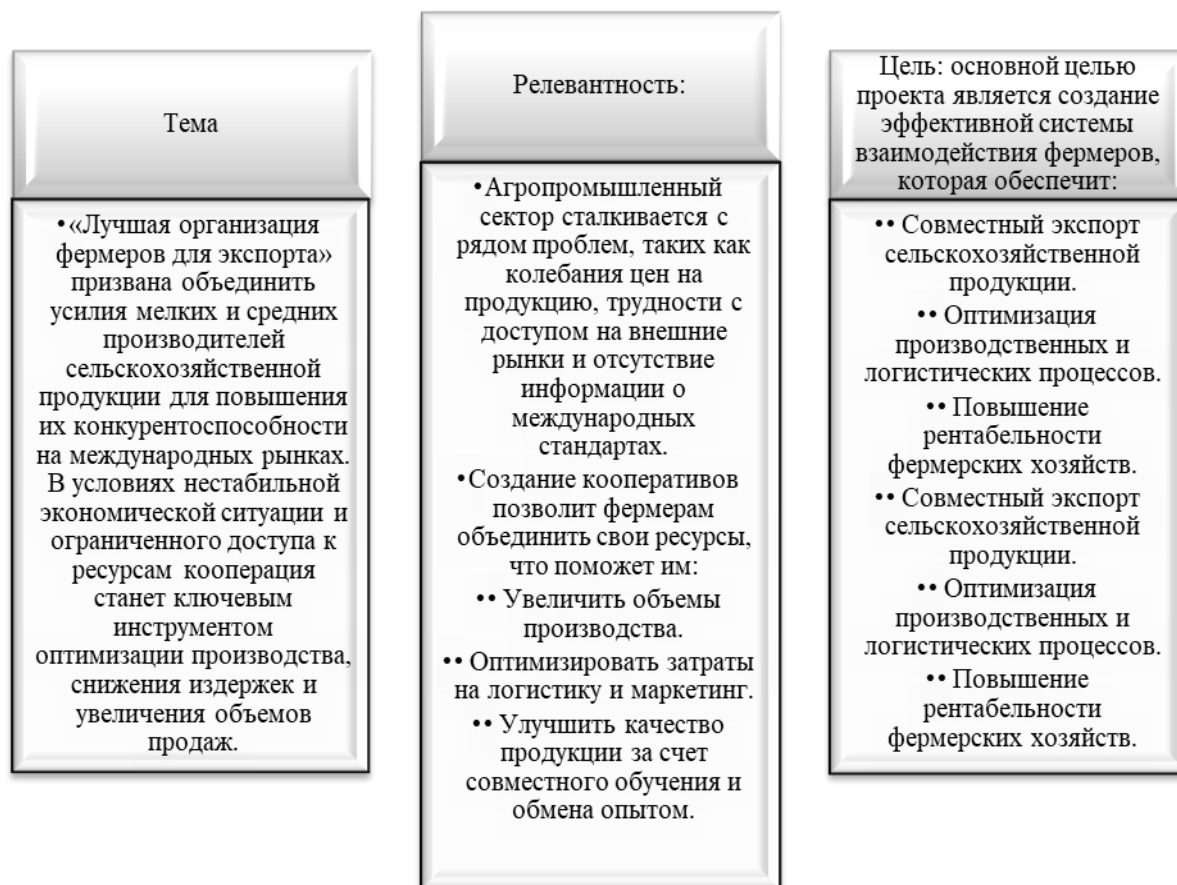


Рис. 1. Кооперация фермеров как путь к успешному экспорту сельскохозяйственной продукции

Cooperation among farmers helps to create a more sustainable and competitive system that optimizes production and logistics processes.

The use of a cooperative approach can lead to increased production volumes and reduced production costs, which expands opportunities to enter international markets.

Successful integration of farmers into cooperative ecosystems not only optimizes internal processes, but also has a positive effect on the profitability of farms.

The implementation of joint export of agricultural products creates more favorable conditions for farmers, providing access to information on

international standards and the needs of foreign markets.

Figure 2 is a visualization of the characteristics and benefits of a specific agricultural product analyzed in this study. Understanding a product's features, functions, and benefits is key to developing strategies for both marketing and optimizing production processes. In a highly competitive environment, knowing what makes a product different from similar products allows farmers and producers not only to improve the quality of their products, but also to plan their export and sales more effectively. This figure illustrates the importance of understanding both the

consumer and physical characteristics of a product to succeed in demanding markets.

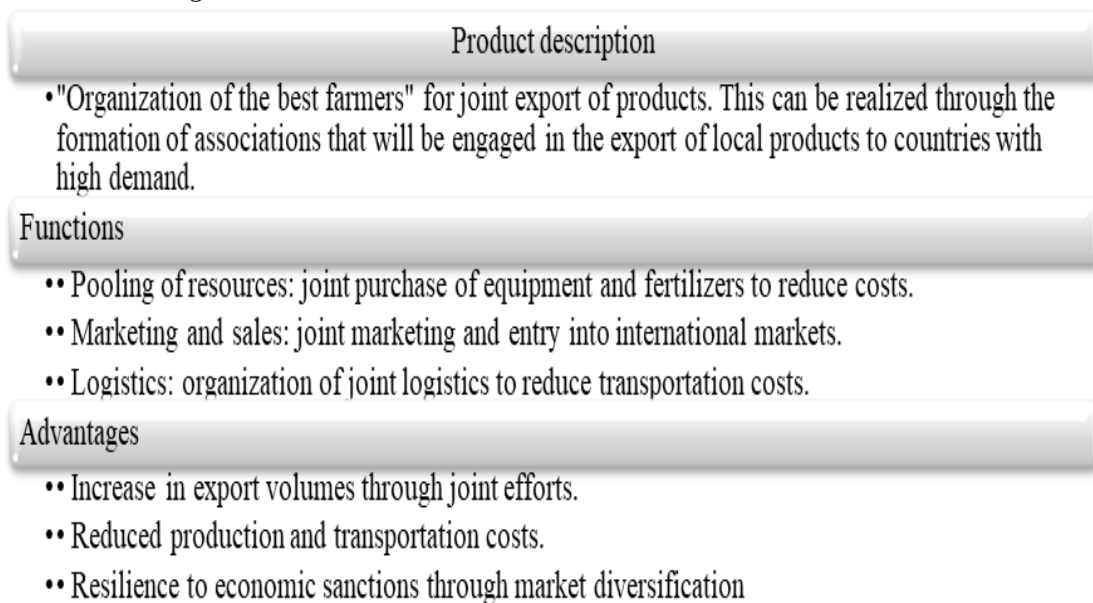


Fig. 2. products Analysis of the characteristics and advantages of an agricultural product

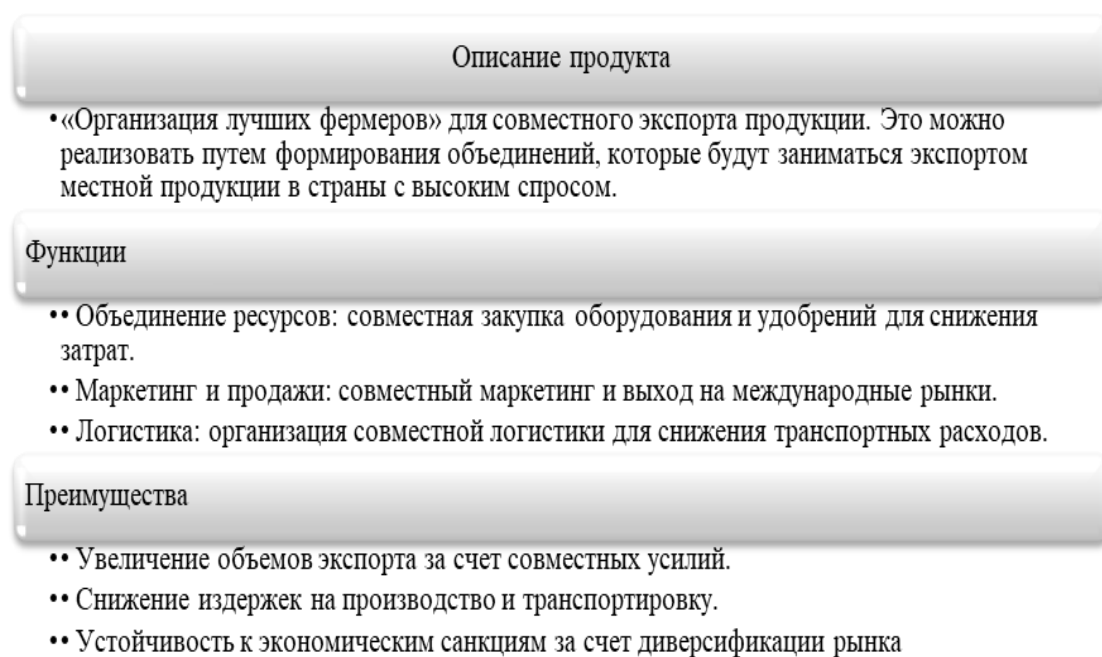


Рис. 2. Анализ характеристик и преимуществ сельскохозяйственной продукции

This analysis allows us to draw conclusions about the importance of an integrated approach to studying product characteristics, which in turn contributes to a more successful strategic orientation of the agricultural business as a whole.

Market Analysis

Understanding the needs of various stakeholders in the agronomic process, including farmers and end consumers, is key to creating effective business models and successfully marketing products.

The table also looks at current competitors and existing platforms to identify gaps in the market and areas for improvement. This information is critical to

developing strategies for implementing innovative solutions and increasing competitiveness [3].

Table 1

Needs of agricultural market participants and analysis of competition

1. Research of farmers and buyers needs	
Farmers:	• Access to sales markets and efficient channels for product distribution. • Joint purchases to reduce costs for seeds, fertilizers and equipment. • Training in modern agricultural technologies and business management. • Access to financing (loans and grants). • Opportunities for networking and exchange of experience.
Buyers:	• Product quality and safety, preference for natural products. • Interest in local products and support for the local economy. • Transparency of the supply chain and information on the origin of products. • Convenience of purchasing through online orders and delivery.
2. Analysis of competitors and existing solutions	
Competitors:	• Agricultural cooperatives offering joint sales and purchasing services. • Large agricultural companies with alternative business models. • Local markets and fairs offering products without intermediaries.
Existing solutions:	• Online platforms for joint marketing of farm products. • Technological tools for production and financial management. • Educational programs on cooperation and agronomy.
3. Defining the target audience:	
	• Farmers: small and medium-sized farms producing organic produce, vegetables, fruits, dairy products and meat; located in various regions. • Buyers: private consumers, restaurants, cafes and retail stores interested in quality local products.

Потребности участников аграрного рынка и анализ конкуренции

1. Исследование потребностей фермеров и покупателей	
Фермеры:	• Доступ к рынкам сбыта и эффективным каналам дистрибуции продукции. • Совместные закупки для снижения затрат на семена, удобрения и оборудование. • Обучение современным сельскохозяйственным технологиям и управлению бизнесом. • Доступ к финансированию (кредиты и гранты). • Возможности для нетворкинга и обмена опытом.
Покупатели:	• Качество и безопасность продукции, предпочтение натуральным продуктам. • Интерес к местным продуктам и поддержка местной экономики. • Прозрачность цепочки поставок и информация о происхождении продукции. • Удобство покупки через онлайн-заказы и доставку.
2. Анализ конкурентов и существующих решений	
Конкуренты:	• Сельскохозяйственные кооперативы, предлагающие совместные услуги по продажам и закупкам. • Крупные сельскохозяйственные компании с альтернативными бизнес-моделями. • Местные рынки и ярмарки, предлагающие продукцию без посредников.
Существующие решения:	• Онлайн-платформы для совместного сбыта фермерской продукции. • Технологические инструменты для управления производством и финансами. • Образовательные программы по кооперации и агрономии.
3. Определение целевой аудитории:	
	• Фермеры: малые и средние фермы, производящие органическую продукцию, овощи, фрукты, молочные продукты и мясо; расположены в разных регионах. • Покупатели: частные потребители, рестораны, кафе и розничные магазины, заинтересованные в качественной местной продукции.

Establishing an effective network of interactions between farmers and buyers is the basis for a successful agricultural market. Understanding the needs of farmers, such as access to markets and training programs, along with buyers' interests in terms of quality and transparency, allows for the best possible adjustment of product and service development. It is also important to note the presence of competitors, which indicates the need for innovative solutions to improve efficiency and create added value at each stage of the supply chain. This table serves as a basis for subsequent strategic steps and the formation of concepts that contribute to the development of sustainable agriculture.

SWOT analysis is a key strategic planning tool that allows you to assess the internal and external factors that affect your business.

It consists of four components: Strengths: Competitive advantages and resources that help you achieve your goals.

Weaknesses: Areas that need improvement and that may limit your development.

Opportunities: External factors that can be used to grow and improve your competitiveness.

Threats: Potential risks and challenges that may negatively impact your business.

Analysis of these components will help you better understand your business and develop strategies to maximize your potential and minimize your risks.

The analysis identified key factors within and outside the organization that will contribute to a more complete assessment of the current situation and identify areas for future growth.

Table 3

Needs of agricultural market participants and analysis of competition

Strengths	Weaknesses
- Pooling resources to improve efficiency - Reducing export costs through logistics optimization - Increasing production volumes through the introduction of new technologies - Highly qualified employees that promote innovation	- Different levels of involvement of farmers, resulting in uneven work - Need to coordinate interests of different parties, which increases decision-making time - Limited knowledge of international markets and export requirements - Insufficient marketing strategy and lack of branding
Possibilities	Threats
- Growing demand for organic products - Expanding international markets - Government support, including subsidies and grants - Growing interest in sustainable and environmentally friendly products - Development of new technologies that will optimize processes	- Changes in legislation related to certification and standards - Competition from large manufacturers able to offer lower prices - Economic instability affecting consumer demand - Changes in consumer preferences that may affect demand - Increase in raw material costs due to global demand and price fluctuations

Table 3

Потребности участников аграрного рынка и анализ конкуренции

Сильные стороны	Слабые стороны
- Объединение ресурсов для повышения эффективности - Сокращение экспортных издержек за счет оптимизации логистики - Увеличение объемов производства за счет внедрения новых технологий - Высококвалифицированные сотрудники, продвигающие инновации	- Разные уровни вовлеченности фермеров, что приводит к неравномерной работе - Необходимость согласования интересов разных сторон, что увеличивает время принятия решений - Ограниченное знание международных рынков и экспортных требований - Недостаточная маркетинговая стратегия и отсутствие брендинга
Возможности	Угрозы
- Растущий спрос на органическую продукцию - Расширение международных рынков - Государственная поддержка, включая субсидии и гранты - Растущий интерес к устойчивым и экологически чистым продуктам - Разработка новых технологий, которые оптимизируют процессы	- Изменения в законодательстве, связанном с сертификацией и стандартами - Конкуренция со стороны крупных производителей, способных предложить более низкие цены - Экономическая нестабильность, влияющая на потребительский спрос - Изменения в потребительских предпочтениях, которые могут повлиять на спрос - Рост стоимости сырья из-за мирового спроса и колебаний цен

Among the opportunities, the growing interest of consumers in organic products stands out, which opens up new prospects for development. However, the company needs to be prepared for potential threats, including changes in legislation and increased competition, which may require additional efforts to maintain sustainable growth.

Thus, SWOT analysis provides a complete picture of the current state of the business and serves as a basis for forming strategies aimed at effectively using strengths and opportunities, as well as minimizing the impact of weaknesses and threats.

Successful operation of cooperatives in uncertain conditions requires a comprehensive approach to managing risks associated with external and internal factors. Uncertainty in demand for products, changes in legislation, exchange rate fluctuations and inflation - all these aspects can have a significant impact on the stability and profitability of the agricultural sector.

The proposed measures to reduce risks include systematic marketing research to assess current market trends, as well as the introduction of effective quality control systems at all stages of the production process.

Diversification of sales markets will minimize dependence on a specific region, which is also an important part of strategic planning [4].

The risks in agricultural business discussed above highlight the need for proactive management. Changes in legislation related to export and import regulations may create additional difficulties for cooperatives without proper monitoring and adaptation of strategies. Quality control of products at all stages allows not only to comply with international standards, but also to increase competitiveness in the global arena.

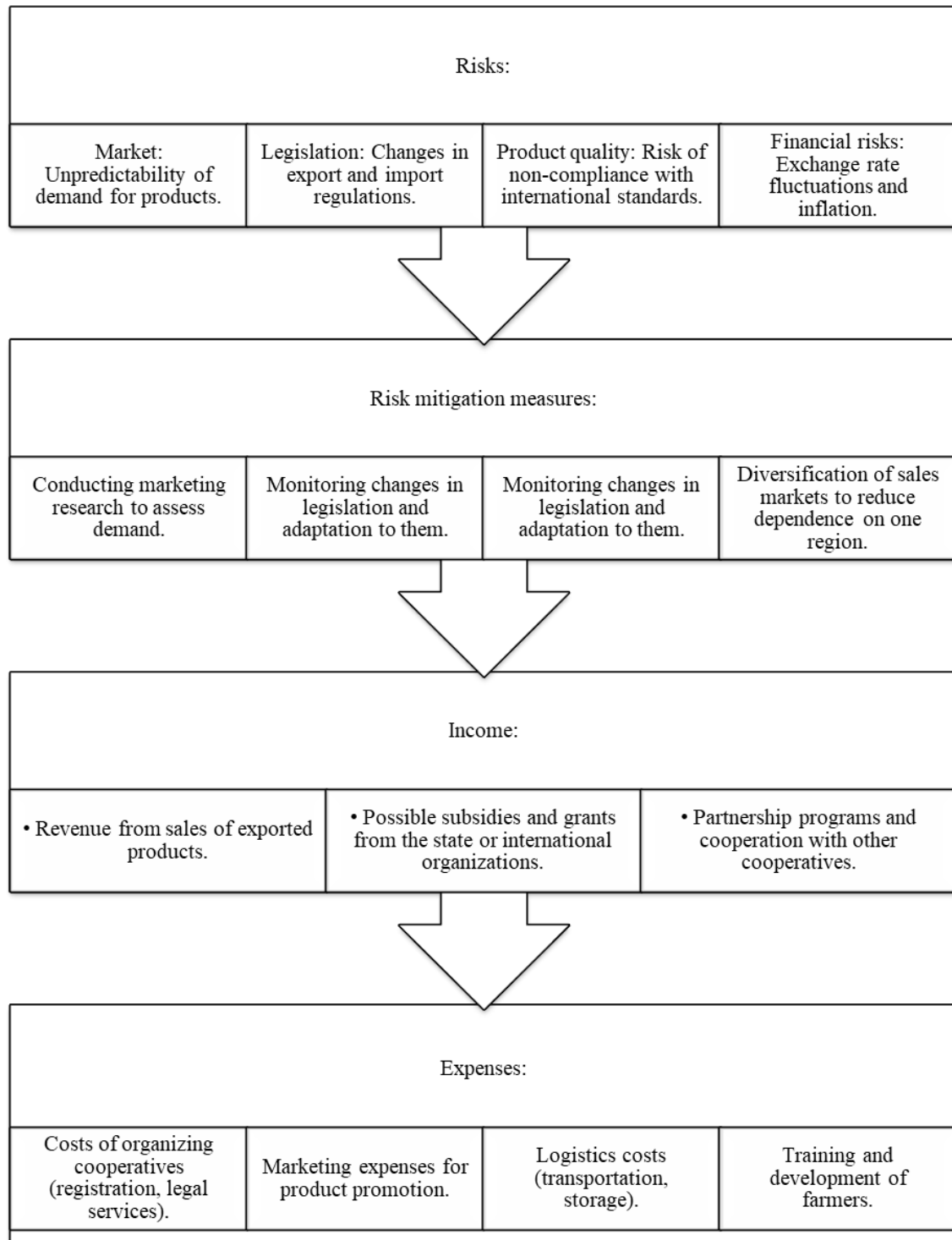


Fig. 3. Risk Analysis and Mitigation Strategies System in Agricultural Business

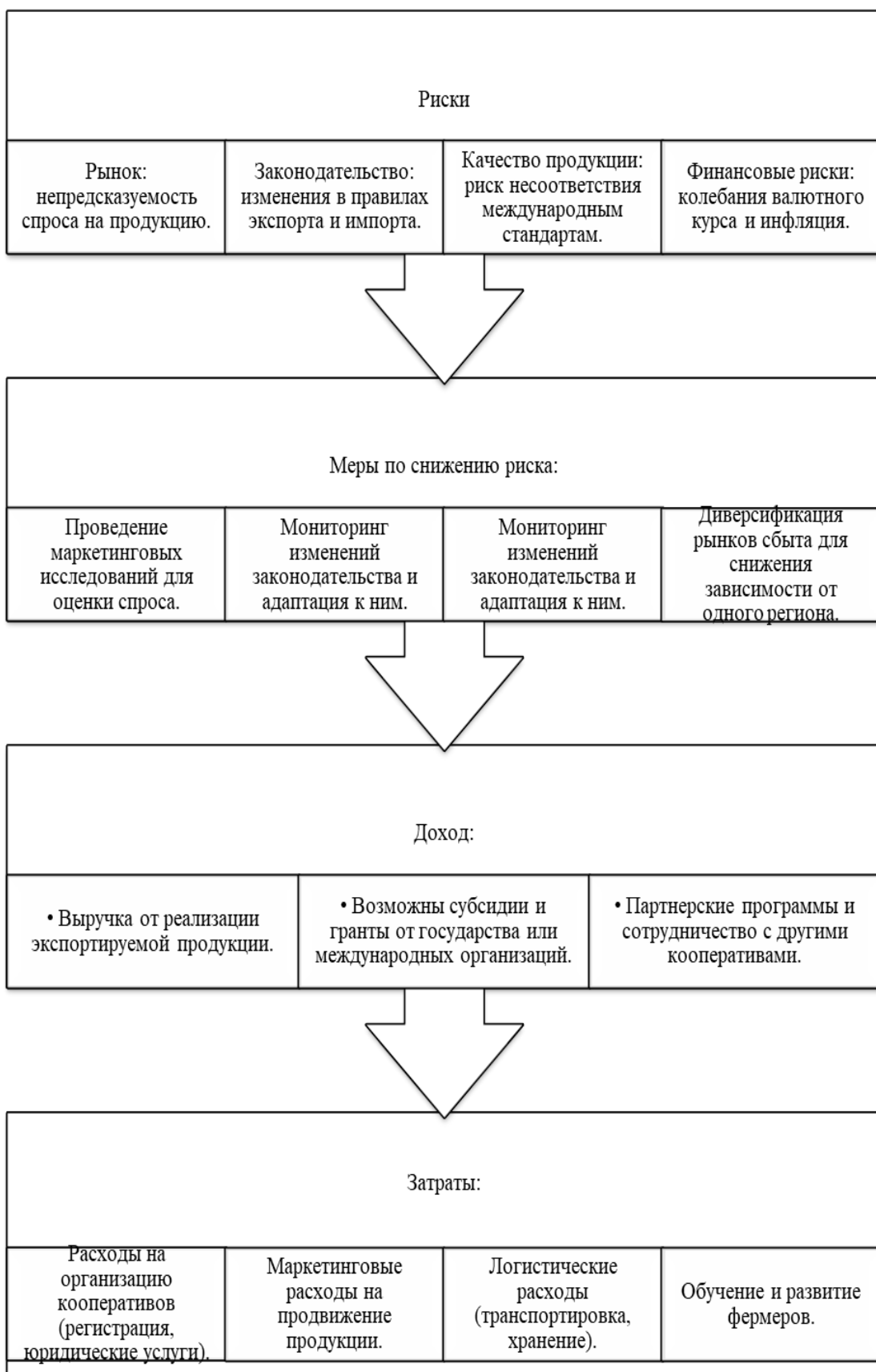


Рис. 3. Анализ характеристик и преимуществ сельскохозяйственной продукции

Financial risks, such as exchange rate fluctuations, require the development of financial strategies, such as hedging to protect against instability. Diversification as a strategic measure can serve as an effective tool for reducing dependence on one market, thereby increasing the resilience of cooperatives to sudden changes in the external environment. Taken together, the measures taken ensure the creation of favorable

conditions for increasing income from the sale of exported products, potential subsidies and grants, as well as the possibility of cooperation with other cooperatives. Thus, a substantive analysis of risks and adequate strategies for their minimization contribute to the successful operation of the agricultural sector in a constantly changing market environment.

Discussion and Conclusion

The article examines an innovative system of cooperative associations of farmers aimed at optimizing the export potential of agriculture. The author highlights the importance of cooperation for small and medium-sized producers and the benefits it provides, such as reduced costs, improved access to resources, knowledge sharing, and integration into digital platforms for selling products on international markets.

The creation of sustainable cooperatives is seen as an important mechanism for promoting socio-economic development of rural areas, creating jobs, and increasing competitiveness. Examples of

successful cooperative initiatives demonstrate the effectiveness of this approach aimed at creating win-win conditions for farmers. The final conclusion emphasizes that cooperation is a key tool for both the commercial success of farmers and the sustainable development of the agricultural economy as a whole.

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Authors' information:

Lusine V. Badadyan, — lecturer, Department of Management and Business Technologies, Don State Technical University (DSTU), 344065, Rostov-on-Don, Russia, E-mail: l-b-v@bk.ru