Creation of favorable entrepreneurial ecosystems for the development of youth business in agricultural regions of the South of Russia

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Abstract. Youth entrepreneurship plays a key role in achieving the success of the economy of agrarian regions in modern conditions of rapid global transformations taking place under the influence of digitalization and pandemic restrictions. It plays a triune role: it allows to realize the professional aspirations of young people, their desire to work for themselves; to provide a solution to the social problem of employment growth in manpower-surplus agricultural regions, as well as to boost the innovative development of the economy of regions with agricultural specialization. The main purpose of the research is to identify opportunities, difficulties, and obstacles to youth business activity in the agro-industrial complex. The paper provides a more specific study of the interrelation between the characteristics of the business environment (its new realities and dangers) with positive and negative characteristics of young people who are creating their own business in the agro-industrial complex. The conclusions are based on a questionnaire study of the propensity for business of graduates of the largest university of the Stavropol Krai in 2021, which has a developed agricultural specialization. Pragmatic, professional, pessimistic and adventurous models of behavior of young people in the role of a business leader in agriculture are highlighted. The interrelation with the growth of potential for the implementation of innovative projects in the agro-industrial complex is shown. Then, based on the study of international best practices, a list of the main conditions that form an entrepreneurial ecosystem for the development of youth agribusiness is formed, among which a favorable legal and market environment for starting a business, as well as other factors, including social, financial and innovative state, public and entrepreneurial support and the level of quality of local governance, have a great influence.

1. Introduction
The article is devoted to one of the most urgent problems of agrarian regions - the development of youth entrepreneurship. This is important for many economic, socio-demographic, and public political reasons. First, it is the business initiatives of young people that should contribute to the speedy transition of agriculture to an innovative path of development, increase of labor productivity and quality of products of the agro-industrial complex (AIC). Second, youth entrepreneurship contributes to solving the problem of rural population employment, primarily graduates of educational institutions.
Third, entrepreneurship can combine the ambitions of young people, their professional aspirations, the desire to work for themselves, and determine their own future.

In connection with the problem urgency, the authors set the following goal of the study – to identify the advantages and disadvantages of youth entrepreneurship in AIC, to show the possibilities of using its strengths and preventing the negative consequences of the manifestation of its weaknesses on the basis of the formation of the entrepreneurship ecosystem.

2. Materials and methods
The main methods of this research are system-analytical and situational approaches, methods of statistical and SWOT analysis, as well as questionnaire survey.

The system-analytical approach has become the basis for identifying the importance of youth entrepreneurship in the development of the economy and the problems that arise when implementing business initiatives of young people in the agricultural sector.

For the systematization of opinions on these issues, such works have become useful: Dolgorukova (2019)[6], Klimova (2019) [10], Andreeva&Sukhoveeva (2020) [1] reveal the importance and tools for the development of youth entrepreneurship in Russia. Baporikar (2018) [3] paid attention to the immediate problems of youth entrepreneurship in India. Zhartay, Khussainova&Yessengeldin (2020) [25], show the way of business development of youth of Kazakhstan. Ogamba (2019) [15], Noga&Brzeziński (2022) [14] explore international perspectives on the development of youth entrepreneurship; the role of education in improving business competencies, knowledge and skills to recognize the potential and realization of your ideas in the face of rapid global change Põder, Lemsalu, Nurmetand Lehtsaar (2019) [17] revealed in their article.

The methods of statistical analysis are applied to characterize the socio-economic situation of the agrarian regions of the South of Russia.

The methods of the questionnaire survey are used to assess the advantages and disadvantages of the personality of a young entrepreneur, which determine the competitive advantages of the youth business.

To identify the conditions for the favorable development of youth entrepreneurship in the agricultural sector, a comparison of its strengths and weaknesses with the opportunities and difficulties of the environment in which it exists was carried out. For this purpose, we used the SWOT analysis presented by the authors in the works on strategic management [16].

The situational approach was used to identify the factors and problems of youth entrepreneurship in the difficult situation of the spread of COVID-19, while the study of Diandra L., Fahleza R. (2020) [5], devoted to specific problems of the impact of Covid-19 on youth enterprises in Indonesia, was very useful; Chauke T.A., Chinyakata R. in South Africa, as well as on entrepreneurship in the world [12].

Effective examples of the work of young entrepreneurs and the actions of the authorities in their support, which can provide a basis for responding to the problems that have arisen as a result of the COVID-19 pandemic, are given in the following works:

Golovina, Merkulov&Polyanin (2017), Tinkov&Alpatskaya (2020) offer state tools for supporting youth organizations [8,24];
Mohamed & Ali highlight the possibilities of higher and secondary education in a new format [13];
Karpunina, Savinova&Shubnyakova (2014) show the role of entrepreneurial unions in solving the crisis problems of youth business [9];
B. Rivza, M. Kruzmetra and L. Sunina (2018) [19] showed the role of the knowledge economy and its prospects in rural areas of Latvia in the post-crisis period, as well as the impact of national policies and especially the quality of local government.
3. Results
The problem of youth entrepreneurship development is especially relevant for such a region of South of Russia as the North Caucasus Federal District, where labor productivity in agriculture is low and the regions are highly subsidized, there is the highest level of youth unemployment, as well as a high migration outflow of the population from rural areas to large cities.

According to the FSBI "Center for expert evaluation of the effectiveness of activities in the field of agro-industrial complex", out of 25 highly specialized subjects in agriculture, more than 20 are located in the southern part of Russia [2].

At the same time, there is a very unfavorable situation with youth unemployment in the Southern regions of Russia, where it is more than 2.5 times higher than the Russian average (in the federal districts of the North Caucasus: 14.8% - total, 18.5% - youth; and Southern: 5.9% and 12.1%, respectively). This is determined by a pronounced regional differentiation in terms of the level of economic development, which leads to significant differences between the federal districts in terms of the scale of unemployment also among young people, primarily among graduates.

As a result, the creation of a favorable entrepreneurial ecosystem solves an important social task - ensuring employment and increasing the well-being of the rural population.

At the same time, peasant (farmer) enterprises as small business structures in agriculture have the highest rates of development, although very uneven. As can be seen from the graph (Figure 1), for the entire observed period (except for the post-crisis years of 2009, 2010 and 2012), they provide higher growth rates of agricultural products.

![Figure 1. The growth rate of agricultural product as a percentage to the previous year in Russia as a whole.](image)

Considering the dynamics of agricultural products in relation to 2000 (Figure 2), a more stable growth in agricultural production in peasant farms can be noted (the trend line with the dynamics of increasing the effectiveness of these forms of agricultural business, close to the actual data, has a high approximation accuracy with a coefficient $R^2 = 0.977$).
It should be noted that exactly in this form young people in the agricultural sector often start their business activities. In addition, in rural areas, young people are opening their own businesses in the field of trade and procurement, services, processing of livestock products and agriculture.

According to experts, in modern conditions, pragmatic (the main goal is material well-being), professional (the main thing is professional interest, achievements, success), pessimistic (the goal is just a job and a satisfactory standard of living) and adventurous (the main thing is independence, freedom of action, the desire to take risks in order to achieve success) models of behavior of young people as an entrepreneur are identified. Young people who actively relate to their future and create their own business are a powerful resource for implementing projects for the introduction of modern innovative technologies in the agro-industrial complex. Young entrepreneurs quickly master them, they are more flexible in thinking, and most importantly, they are active and have a large margin of efficiency. If we do not consider the pessimistic model of behavior, which is rather forced, we can identify the general specific characteristics of young entrepreneur personality, which determine the strengths and weaknesses of youth business in the agro-industrial complex, its competitive advantages and disadvantages compared to traditional forms of enterprises that can give impetus to the development of the agricultural industry in the South of Russia. According to the questionnaire study, the results of which are shown in Table 1, in modern conditions of agricultural business, young people have a high potential for development, which is provided by their business activity, high emotional and volitional qualities, the ability to take risks; learning ability and initiative self-improvement.

Table 1. Results of the survey of graduates and young entrepreneurs on the choice of significant characteristics of youth entrepreneurship.
The conclusions are based on a questionnaire study of the propensity for business of graduates of 2020 and 2021 of the two largest universities of the Stavropol Krai, which has a fairly developed agricultural specialization. The hypothesis was put forward and confirmed that graduates who developed entrepreneurial competencies and leadership qualities during their studies are much more likely to innovate and participate in business.

Youth entrepreneurship plays a threefold role: it allows to realize the professional aspirations of young people, their desire to work for themselves; to provide a solution to the social problem of employment growth in manpower-surplus agricultural regions, as well as to boost the innovative development of the economy of regions with agricultural specialization.

At the same time, young people have little work experience, have not yet been able to form start-up capital, are not always resistant to job offers in the shadow sector of the economy. These signs, distinguishing youth entrepreneurship as a special category, determine the basic tasks of the state and society to support it: reliance on the use of strengths and prevention of the manifestation of weaknesses.

Various authors reveal various trends of changes in the agricultural sector of the economy: for example, show a tendency to increase the size of farms in Estonia[18], although this does not guarantee an increase in food production and a sustainable future.

As in other sectors of the economy in agriculture, especially in the supply and distribution system, digitalization plays an important role, which changes the applied business models in small and medium-sized enterprises [20,21].

Having grouped the existing opportunities, dangers and new phenomena in the economic environment presented by Kevin Sneader[23] and comparing them with the advantages and disadvantages of youth entrepreneurship, a SWOT analysis was conducted (Tables 2,3), which outlined the contours of the entrepreneurial ecosystem in youth agribusiness.
**Table 2.** SWOT -analysis of youth entrepreneurship in the AIC (part 1: implementation of new opportunities of the environment).

| Opportunities and new phenomena | Strengths | Weaknesses |
|---------------------------------|-----------|------------|
| Need for innovative economic development | Business activity | Short work experience |
| Digitalization | High innovativeness | Weak practical skills |
| Systematic update of business training programs | Orientation to transformations | Lack of start-up capital |
| Development of import substitution processes | High level of emotional and volitional aspect | Undeveloped personal connections |
| New markets | Disposition toward risk | Lack of formation of moral foundations |
| Support from the authorities | Flexibility, mobility, maneuverability | Small networking experience |
| Support from the society (parents, friends, society) | High efficiency, endurance, energy | Lack of formation of business reputation |
| Quick response to the development of new markets | Learning ability, proactive self-improvement | Financial support |
| Creation of business reputation in the network | Implementation of innovative projects demanded by the authorities and their support by the authorities | Social and financial support |
### Table 3. SWOT analysis of youth entrepreneurship in the AIC (part 2: reflection of environment hazards).

| Limitations and Threats          | Limitations and Threats          |
|---------------------------------|---------------------------------|
| High risks of innovative solutions | High risks of innovative solutions |
| Sanctions                       | Sanctions                       |
| Development of shadow business   | Development of shadow business   |
| Limitations of the education system (non-compliance with the requirements of real business) | Limitations of the education system (non-compliance with the requirements of real business) |
| Limitations of external communication | Limitations of external communication |
| High loads, especially at business startup stage | High loads, especially at business startup stage |
| Negative attitude of bureaucratic structures | Negative attitude of bureaucratic structures |
| High competition in the industry | High competition in the industry |

| Strengths                        | Strengths                        |
|---------------------------------|---------------------------------|
| Business activity               | Business activity               |
| High innovativeness             | High innovativeness             |
| Orientation to transformations   | Orientation to transformations   |
| High level of emotional and volitional aspect | High level of emotional and volitional aspect |
| Disposition toward risk         | Disposition toward risk         |
| Flexibility, mobility, maneuverability | Flexibility, mobility, maneuverability |
| High efficiency, endurance, energy | High efficiency, endurance, energy |
| Learning ability, proactive self-improvement | Learning ability, proactive self-improvement |

| Weaknesses                      | Weaknesses                      |
|---------------------------------|---------------------------------|
| Short work experience           | Short work experience           |
| Weak practical skills           | Weak practical skills           |
| Lack of start-up capital        | Lack of start-up capital        |
| Undeveloped personal connections | Undeveloped personal connections |
| Lack of formation of moral foundations | Lack of formation of moral foundations |
| Small networking experience     | Small networking experience     |
| Lack of formation of business reputation | Lack of formation of business reputation |

Studies show that the personal intentions and skills of young people are not enough to organize entrepreneurial activity. This has become especially obvious in the current conditions of the outbreak of the crisis due to the development of the coronavirus pandemic [5, 4, 12].

In 2020-2021, the employment and unemployment of young people has undergone significant fluctuations, especially in regions with agricultural specialization, which pushes young people to self-employment, search for innovative ways to apply their efforts, create their own business.

A favorable legal and market environment for starting a business is important, as well as other factors that form the ecosystem of youth entrepreneurship in the agro-industrial complex.
Such a tool as business plan competitions (startups), business clubs of young businessmen, common in the United States (Columbia Entrepreneurs Organization, GSB Entrepreneur Club, University of Wisconsin Entrepreneurship Association, etc.), Sweden (Idelab, GU Holding) and other countries is important for attracting young people to entrepreneurship.

In our opinion, in the Russian agro-industrial complex, the mechanism for forming an innovative ecosystem of youth entrepreneurship can be networks of business clubs that unite young and experienced entrepreneurs supporting each other. According to the researchers [9] through this network, the influence of the state and local authorities is more effectively realized, the integration of business, science and education within the knowledge economy is achieved.

A review of studies on the creation of entrepreneurial ecosystems, for example, the Global Entrepreneurship Index, GEM and OECD [1, 5] and the SWOT analysis of youth entrepreneurship in the agro-industrial complex allowed to identify eight areas of a favorable environment for youth entrepreneurship in agricultural regions:

1) educational (communication with educational institutions provides the development of skills for creating and managing agricultural business, mastering digital technologies and other popular competencies);
2) social (support for family, friends, society, etc.);
3) market (communication with consumers, suppliers, consultants, building trusting and long-term relationships with partners, conducting market research that helps to enter new markets and implement import substitution programs);
4) regulatory (a favorable regulatory environment that limits bureaucratic barriers, ensures stability and transparency of requirements for youth business);
5) innovative (implementation of new agricultural technologies, demanded by the government and the market of innovation and investment projects with an objective assessment of risk level);
6) financial (using a diversified approach to financial support of youth business using savings, credits, grants, loans, etc.);
7) network (network sales technologies and entrepreneurial networks that help to defend the interests of young entrepreneurs and form a business reputation in the network)
8) ideological (entrepreneurial motivation and way of thinking, as well as organizational skills and abilities, resisting the temptation to switch to illegal "shadow" business; priority to the development of a "green" economy, etc.)

4. Discussion
Young entrepreneurs have many qualities that are in demand for the development of agricultural territories: initiative, innovation, perseverance, hard work, mobility, learning ability, etc. With all the positive qualities of youth business in general, the characteristics of each young entrepreneur are individual. Many of them are driven by a tendency to risk in the most profitable areas of activity, even if they cannot prove themselves as qualified specialists. It is needed to be able to identify unnecessarily risky young businessmen and warn them about possible losses.

The question remains open about how to identify which of the young people are tempted to switch to illegal "shadow" business and who will have the priority of developing a "green" economy as a business activity?

What new solutions does the digital economy offer for agricultural business?

What preferences should be presented to young people, graduates of higher and secondary educational institutions, so that work in rural areas would be attractive for them?

What structures should the state create to solve the problems associated with COVID-19 that limit the implementation of youth business initiatives?

These and some other issues, when solving them, will concretize the formed set of elements of the ecosystem of entrepreneurship and will ensure more sustainable development of agricultural territories.
5. Conclusion
In modern conditions of digital transformations, pandemic restrictions, rising unemployment and poverty, youth entrepreneurship provides new energy for the development of the economy of agrarian regions. With its use, there is a potential for improving the socio-economic situation of the younger generation. The research identifies opportunities and obstacles to youth business activity in the agro-industrial complex. The opportunities include the following: the need for innovations for the development of the agricultural economy, digitalization of business processes, systematic updating of business education, import substitution, the emergence of new sales markets, new forms of business support from the authorities and society. Dangers to youth agribusiness arise because of a high degree of innovation risk, application of sanctions and their cancellation, attractiveness of the "shadow" sector of the economy for young people, negative attitude of the bureaucracy. These advantages and disadvantages of the business environment interact with the weaknesses and strengths of young people as entrepreneurs in the agricultural sector. The analysis of this interaction and the innovative experience of solving the problems of youth business allows to form factors that form a favorable entrepreneurial ecosystem for its development. In the work, these factors are grouped into eight areas, among which a favorable legal and market environment for starting a business, as well as social, financial, and innovative state, public and entrepreneurial support occupy a central place.

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