



NEW MODEL OF SUSTAINABLE FINANCING OF AGRO CLUSTER

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Botirov Erkin Khayitovich

Independent researcher, Tashkent State University of Economic, Uzbekistan

ABSTRACT

The article examines the advantages of cluster approaches in the fruit and vegetable sector. Foreign experiences related to the development and financing of fruit and vegetable clusters have been analyzed. Additional financial resources are needed for the development of high-tech industries and innovative projects related to the cultivation, harvesting, storage, processing, delivery and sale of fruit and vegetable products. Traditional and modern sources of financing investment projects in the field of fruit and vegetable growing are considered in this article. The purpose of the study is to evaluate the possibilities of alternative means of venture financing based on crowdfunding. In order to form and develop the innovative sector in Uzbekistan, conclusions are given on supporting small businesses in agribusiness. As a result of the observations, crowdfunding is considered one of the most common sources of alternative financing in developed countries due to the possibility of attracting resources to new promising projects based on high risk. The development of the crowdfunding system and directions aimed at supporting advanced investment projects were analyzed. A comparison with Jakhan's experience was described, legal aspects of the problem were considered. According to the results of the research, the problems hindering the introduction of new models of venture financing into the activities of fruit and vegetable clusters were studied, and the prospects for the development of the industry were considered.

KEYWORDS

Competitiveness, producers, consumers, market, cluster, agrarian sector, agriculture, products, competition, region, innovation, venture capital, venture fund, crowdfunding.

INTRODUCTION

At the time when the world's population is rapidly increasing under the conditions of globalization and their needs for food and agricultural products are increasing, the main sector that provides them, that is, deepening agrarian reforms in agriculture, providing food, and measures aimed at social protection of the population. requires the creation of an effective system. And this puts responsible tasks in front of all economic entities supplying products to the food products market.

The presence of food problems in our country's agriculture and internal and external trends in agriculture, as well as the increase in the strategic importance of agricultural development, further expansion of the activities of clusters in the field of fruit and vegetables and financial stability, using the positive experiences gathered in this sector and the achievements of the latest scientific and technical progress achieved in the world economy. provision is necessary.

LITERATURE REVIEW

Organization and financing of innovative activities in the field of fruit and vegetable production, improvement of innovative management methods are studied by economists of our country, the Commonwealth of Independent States and foreign countries from a theoretical and scientific point of view.

First, we will touch on some theoretical, methodological and practical approaches to the development and efficiency of agriculture based on the innovative-cluster approach. One of the most important issues in the development of the modern economy is the problem of creating clusters. The development of clusters occurs in Western Europe, the United States and England in the middle of the 20th century. The cluster approach became the basis of the economies of countries such as Finland, South Korea and Brazil in the 1990s. In economic sciences, the term "cluster" is also used together with the expression "clustering". Clustering (cluster analysis) means dividing a set of objects into groups called clusters. Here, it is assumed that there are "similar" objects within each group, and that the objects of different groups are as different as possible.

Foreign scientists L.Tsfu, Ts.Fan, L.Zhou, A.Zeldner, D.Keynes, K.McConnell, A.Smith, V.Nordhaus, P. Samuelson, V. Oreshin, V. Varga, A. Gordeev, V. Ivanov, A. Nesterova, A. Zakirov, A. Shishkin, V. Boev, I. Buzdalov, L. Abalkin, A. Petrikov, E. Serova, I. Ushachev, A. Paptsov, O. Ovchinnikov, R. Gaysin, R. Gaysina, V. Scientists like Kushlin can be found in his scientific works.

According to Michael Porter, a leading specialist in economic competitiveness research, who introduced the term "cluster" (chain, connection) into science [5]:

"A cluster is a group of geographically related companies and related organizations operating in a certain field, it is characterized by common activities and mutually complementary features". According to the classification of the economist A.S. Khukhrin [4], a cluster is a geographically concentrated network - a system of various networks of market entities that have unique competitive advantages due to their location, apply scientific achievements, innovative technologies, and complement each other. E.N. Skvortsov in his scientific work on the concept of agro-industrial cluster distinguishes three main criteria [1].

Some aspects of improving the scientific-theoretical and methodological foundations of the innovative development of the national economy are highlighted in the scientific works of these economists. However, there is currently no comprehensive research on improving the financial support of innovative activities, which is the main factor for increasing the volume of innovative products. All this requires the implementation of in-depth studies on researching ways of development of the national economy based on innovative factors and improving the scientific-theoretical and methodological foundations of their financial support, applying these to the practice of our country, and accelerating the processes of forming an innovative economy.

Also, in connection with the modernization of the country's economy, there is a need for additional financial resources for the development of high-tech

industries and innovative projects. This article examines traditional and contemporary sources of venture capital investment and assesses the potential for developing alternative means of venture financing.

METHODOLOGY

As a result of the conducted scientific research, proposals and recommendations were made regarding the issues of fruit and vegetable cluster development and increasing their efficiency. Systematic approach, abstract-logical thinking, comparison, factor analysis and comparative analysis methods were used in the research process.

RESULTS

There are many definitions of "venture financing". Without dwelling on these definitions, we limit ourselves to explaining that the feature of venture financing is to offer money to the company instead of its share in the charter capital. This, in turn, helps the development of a business that is considered high risk at the initial stage of its development.

The birthplace of venture business is the Silicon Valley in the United States, where in 1957, the method of raising money was used for the first time in the stage of organization or formation and for the risk investment of small and medium-sized firms aimed at creating new promising technologies. Thanks to the mechanism of venture financing, famous firms such as Kleiner Perkins Caufield & Wuers, Sequoia, MayField, GreyLock appeared in Silicon Valley .

To date, the venture capital market in the United States is the largest in terms of size. Also, thanks to venture investments, companies such as Microsoft, Intel, Apple Computers, Compaq were created in the early stages and became world leaders in the computer industry .

In Western Europe, venture capital appeared in the 1970s, but began to develop actively only in the following decades. Prior to the advent of venture capital, private entrepreneurs in Western Europe were deprived of a simple source of equity capital financing. Since the mid-1980s, Western European investors have been investing less and less in their traditional fixed-income assets and increasingly using equity investment opportunities. The leader in venture capital investment in Western Europe is Great Britain, the

oldest and most powerful financial center in the world .

The rapid development of venture capital in the last 20-30 years around the world has led to the rapid growth of venture capital markets .

Venture business is almost the only source of finance for small innovative enterprises in the early stages due to the high risk of investment.

It is known that small companies to themselves necessary funds under favorable conditions difficult to get, because investors prefer to work with large companies that have found their place in the market. Private investors are also reluctant to finance young high-tech companies because of the high risk involved. The government can help eliminate these "bottlenecks" of the private investment market through direct and indirect intervention measures.

Table 1

Various forms of government instruments to encourage venture capital investment

Forms	The purpose	Developed countries
1. Direct investment		
Direct state investment	Provide direct investment to venture funds and small business enterprises	Belgium-Investment Company for Flanders (GIMV)
State loans	Providing long-term loans to venture funds and small businesses at low interest rates and without interest	Denmark-VækstFonden 9Business Development Finance) Loan Programme
2. Financial benefits		
Tax benefits	Providing tax incentives, particularly tax credits, to those who invest in venture capital funds or small businesses	Great Britain - Enterprise Investment Scheme and Venture Capital Trusts

Securing debts	Guaranteeing part of the bank loan granted to small enterprises that meet certain requirements	France-Societe Francaise de Garante des Financements des Petites et Moyennes Entreprises (SOFARIS)
Securing Equity Investment	Guaranteeing a portion of losses from high-risk venture investments	Finland-Finnish Guarantee Board
3. Defining the range of investors	Allowing institutions such as pension funds or insurance companies to invest in venture capital	USA-Amendments to the Law on Guaranteed Pension

Source: "Government venture capital for tehnology-based firms".OECD.

To encourage venture capital investment of the state tools used its various forms can be divided into three main groups: 1) direct investment to venture funds or small enterprises (investment is given to venture funds or small companies in the form of direct investments or low-interest loans); 2) financial incentives for investing in venture funds or small enterprises (state guarantees for loans to venture funds or small companies; tax credits or tax exemptions reach); 3) funds to venture funds rules defining the range of investors allowed to invest (e.g.certain amount to pension funds and to insurance companies) (Table 1).

In connection with the modernization of the production processes of fruit and vegetable products in our country, there is a need for additional financial resources for the development of innovative projects and areas of activity based on high technologies. In this article, the traditional and modern sources of risk-based investments were considered, and the

possibilities of developing alternative means of venture financing based on crowdfunding in the agricultural market of our country were evaluated.

It is known that, in order to develop the activities of agroclusters in our country, work is being carried out on several programs to support the activities of small businesses and private enterprises. One of them is crowdfunding-based investment activities.

Crowdfunding is an opportunity to attract the funds of a large number of investors to new promising projects based on high risk, which is based on one of the most common alternative forms of financing in developed countries. Research is being conducted on the development of the crowdfunding system and its orientation to support advanced investment projects. In his reports and decrees, the President of our country sets before us the task of modernizing the national economy and moving it to the path of new reform and innovative development. Today, in Uzbekistan, as in

the whole world, the problems of transitioning to a new model of economic development, which will help our country to get rid of dependence on raw material exports and overcome accumulated technological backwardness, remain urgent. Among the promising directions for the formation of a national financial and investment system capable of ensuring the attraction of investments to the development of new productions are production technological complexes of a new technological order, as well as their crowd funding (visual - funds from the majority) collection of very small amounts of money from many people (legal entities). through (usually via the Internet) the practice of project or enterprise financing (Editor) is distinguished by the creation of areas of consumption of products and the formation of institutions for financing development projects.

One such measure is the venture business and the financing model through it. However, the state as a general manager plays a key role in creating the attractiveness of venture financing, especially in the field of innovation.

Due to the high risk of investment, venture business is almost the only source of finance for small innovation enterprises in the early stages.

The following are the traditional sources of financing of risky investments: private investors (business angels), investment institutions (corporate investors), pension funds (pension funds), insurance companies (insurance companies), various government agencies

and international organizations. In the 70s and 80s of the 20th century, funds for direct investment in the share capital (private equity fund) aimed at buying a package of shares of such companies; repurchase funds, which carry out the purchase (financing) of a package of shares by gaining full control over the use of the company's assets; mezzanine funds specializing in investment financing of companies before they go directly to the stock markets. Currently, the total capital of direct investment funds in the United States exceeds the capital of venture funds by 4-5 times. As a result, a two-stage venture investment scheme works: venture capital is used in the initial stages of the project's market entry, and then direct investment funds are attracted. In the development of venture business, the situation of small and medium enterprises is important due to the achievement of the highest results and initiative. A small business spends a large proportion of its funds on improving its products and technologies. In most countries with modern market economies, small and medium-sized enterprises generate between half and three-quarters of national income and are the most important engine of economic growth.

The effectiveness of modern business, like the effectiveness of the country's economy, depends primarily on innovation. Until now, there were only two ways to finance innovation. First: companies invest funds (private or borrowed) in ongoing research and development (R&D). Second: investments in R&D

are made not by the companies themselves, but by venture investors; they would invest their venture (risk) capital in venture projects of companies, and in return they would have a corresponding share in the capital of these companies.

Agrocluster is one of the intersectoral and regional integrated structures that are of particular importance in ensuring the stability of the agricultural sector in world practice. Our country has all the opportunities for further development and formation of this sector. Today, the development of clusters is one of the important tools that contribute to sustainable innovative development and the competitiveness of agriculture in the region and the development of the agro-industrial complex as a whole. For the rapid and innovative development of fruit and vegetable growing in our country, the formation of fruit and vegetable clusters is introduced in two directions: the first direction is the organization of the production of fruit and vegetable products within the framework of a single or interrelated group of enterprises that independently carry out the specified process from the production of fruit and vegetable products to their sale. cluster; the second direction is "seed-seedling" on the basis of guaranteed contracts between agricultural producers, processing enterprises, processors, exporters who provide planting material, advance payments to agricultural producers for the organization of agricultural work, and purchase the products produced from them at agreed prices. cluster

of organization of production of fruit and vegetable products forming a continuous chain according to the principle of "growing - preparation - storage - processing - transportation - delivery to the market".

Targeted non-repayable sources are distinguished by the fact that funds are given indiscriminately, for specific purposes and without the condition of repayment. They include state budget funds, international and local grants, customers, sponsors, and the company's own funds. Sources based on debt relationships are based on the principles of maturity, repayment, repayment. Equity investment is involved in cases where the previous two sources cannot be used, and the innovative project is implemented in cooperation with its creators and external investors (venture funds, shareholders, foreign investors, etc.).

In the venture financing system, two groups of investors are distinguished: corporate (collective) and individual venture investors.

One of the newest means of financing in the field of personal venture investment is crowdfunding, which comes from the English words crowd-public and funding-funding and means public financing. In other words, it is a collective interaction of people who voluntarily pool their money and other resources, usually over the Internet, to support the initiatives of other people and organizations. It is emphasized that these projects have a broad purpose: donations (aid to victims of natural disasters, support from enthusiasts), political campaigns, financing of start-up companies

and small businesses, support of IT technologies and free software, etc.

The operating model of all services is approximately the same. The authors of the project publish their initiative for free, indicate the amount of money needed to be collected and the deadline. Donors (sponsors) contribute any funds for the implementation of the project and may not receive any benefit at all, except for the fact that for the future contribution, a product sample, a sample of a model that is not available for sale to everyone, an appropriate percentage of profits, profit in the form of shares, or the name of the sponsor will be remembered as a participant in the project. If the appropriate funds are not collected within the specified period, the funds will be returned to their owners and the project will be closed. Currently, the amount of funds collected through crowdfunding has increased significantly. In 2012, the video games Double Fine Adventure and Wasteland 2 raised \$3.3 million and \$3.1 million respectively through the Kickstarter crowdfunding site. More than 87 thousand people contributed to this project. In 2011, nearly \$1.2 billion was raised worldwide through crowdfunding, and in 2012, this figure was predicted to double. Funds raised have been used to support more than one million projects. Almost half of the investments (49%) were used for non-profit projects, while only 11% were for borrowing and projects whose investors received shares or a share of the profits. Only 27% of crowdfunding sites use a

donation scheme, the majority of the rest use a "rewards" model (47%)¹.

At first, crowdfunding was used for non-profit projects as a means of collecting funds from a small number of netizens trying to raise money for treatment or education. Currently, crowdfunding has shown itself as a full-fledged financial weapon - a source of venture investments and a method of microcredit. For the first time, the crowdfunding model of venture financing was used by software developers. The most successful projects of the crowdfunding model of venture financing include the popular Mozilla Firefox browser and the AbiWord word processor. Such a model is justified and successful at the very initial stage of financial support of a new idea, and then, when the project reaches a high profit indicator, when the risk is much less, large companies join the financing. In particular, the main investments made by major investors in the above-mentioned Mozilla Firefox project in ten years amounted to 317 million dollars, while only 0.01% of this amount was invested by private individuals (just at the stage of implementing the idea into life). The most successful crowdfunding project in the West is the Cambrian House project, which raised nearly \$8 million. Its participants will present their ideas to the public, and those who wish will be able to directly become a participant or bet on it.

There are various crowdfunding projects in the world: Crowdrise (collecting funds for donations), Kickstarter, IndieGoGo (supporting creative projects), OpenIDEO

(creating ideas and concepts), 33 needs (seeking investments for social entrepreneurship), ioby (U.S. environmental creating, financing and participating in projects), Start Some Good (social orientation), Microplace (fundraising to fight global poverty), Sparked (social network of volunteers), Ushahidi (creating free open data software for information retrieval and data display), Causes (using Facebook integration to help NTTs implement their projects), Advert Activist (creating advertising and media companies for NTTs). Mosaic stratapi has raised the next round of financing for the coatings being created for solar cell roofs. The investment of \$300,000 needed for the company was collected in one day - people bought "shares" of the company (the cost of one share is \$25). The exact name of crowdfunding is Equity Crowdfunding. Its main features are as follows: the form of introduction of financial funds - investment; form of return of funds (not all crowdfunding companies provide for return) – full return of investments in case of success of the company's business (additional benefits - financial and non-financial); motivation for giving money (motivational reason) is a combination of personal motivation (likes the company), social motivation (the company's business is necessary and useful for society) and financial motivation.

The first crowdfunding projects in Russia from CIS countries began to appear in 2008, but developed very slowly and with difficulty. The most successful and

interesting among them are the shareholder.ru and capitaler.ru websites, which founded the WebMoney payment system. If the first resource can collect the necessary funds for the project, the second site can spend the funds collected under the control of investors and on the basis of strict reporting. The main reason for the success of the platform for this activity is that investors can practically and effectively control the spending of funds, which attracts additional investors (shareholder.ru collects hundreds of thousands of dollars from each investor from 5-10 dollars). Besides, it will not be technically possible to build a financial pyramid based on such a service.

A relatively new project in Russia is the "Venture Factory" created by the interactive creative system E-generator.ru under the control of the investment holding "FINAM". "Venture factory" is a Russian service for the implementation of IT projects with venture investment, which provides a high level of income. In this case, crowdfunding has a public IPO format. A model of collective investment in the project was created as part of the service, in which several people can contribute their money (the minimum amount invested by one investor is 300-500 rubles). After collecting the necessary investment funds, the implementation of the project will begin.

The project implementation algorithm includes five stages:

- the author offers "Venture Factory" an idea and a business plan for its implementation;

- the proposed idea is evaluated by experts of E-generator.ru company;
- the approved project is placed on the website of "Venture Factory" to attract investments;
- after the project amount is collected, its implementation begins;
- after the completion of the project, the participants will receive their share either in the form of stock or in the form of profit from the sale of the project.

During the study, the following trends and factors of the development of crowdfunding, including as a means of venture financing, were highlighted:

technological advances in mass media and social media. The modern level of technology development allows Internet users to join online groups of their interests to exchange ideas and solve current problems;

waiver of mediation. Direct connection of buyers with sellers, creators with investors and projects with groups (communities) is ensured. Traditional business models are very complex, require a lot of time and large financial costs;

small business has difficulties in attracting initial capital (up to one million dollars);

entrepreneurs begin to master the method of crowdfunding and with its help not only collect the required initial investment, but also get additional advertising through social networks and learn valuable opinions of consumers. Many investors realize that they can control projects from the beginning to the

end, monitor the development of the project and help as much as possible.

The development of the crowdfunding model of venture financing in Uzbekistan is largely hindered by the macroeconomic and organizational problems of investment entrepreneurship:

- low quality of existing infrastructure for the development of small and medium-sized innovative organizations in the innovative field as possible objects of venture financing;
- underdevelopment of the infrastructure that can ensure the effective cooperation of venture industry entities and small innovative organizations, the emergence of new small and medium-sized innovative enterprises and the development of existing ones;
- very little participation of local investment in venture business, while mainly foreign investments are used;
- low liquidity of venture investments, which is largely determined by the underdevelopment of the stock market, which is a very important means of free exit of venture funds from invested enterprises;
- lack of economic prospects that provide acceptable risk to venture investors to attract direct investments in high-tech sector enterprises;
- insufficient information support in the venture business environment;
- lack of qualified managers and executives in venture funds, low level of investment culture of entrepreneurs;

- lack of incentives for the establishment of venture funds: there is almost no regulatory and legal documents that ensure venture financing of small innovative businesses;

- lack of economic incentives for venture business and a convenient and appropriate taxation system for attracting investments in the organization of the high-tech sector with an acceptable level of risk for venture investors. The corporate and tax legislation of Uzbekistan does not have specific incentives for the participation of banking, pension, insurance or corporate investments, but there are direct prohibitions or obstacles.

CONCLUSIONS

Currently, one of the main problems of growing innovative products in fruit and vegetable clusters is the modern financing of the system, therefore it is important to introduce a mechanism of subsidization in the system of financing the processes of production, storage, processing and delivery of fruit and vegetable products in clusters operating in the network;

In our opinion, forming centers (laboratories) of "Innovative developments and introduction of new business ideas" within the clusters being formed in our republic, attaching leading universities and research institutes based on cluster specialization to them, establishing strong cooperation with scientific and innovative centers, venture funds and companies it is appropriate to put. Fruit and vegetable cluster and cluster members are invited to use alternative sources

of financing ("crowdfinancing") to finance their operational and investment activities.

In order to increase the effectiveness of the financing mechanism for innovations and technological development in fruit and vegetable clusters in Uzbekistan, it is recommended to develop an effective mechanism for financing innovative structures - the venture capital market, taking into account regional and local sources.

Thus, the prospective task of developing the economy of Uzbekistan is to create a venture infrastructure to attract investment and activate venture business in order to ensure the development of small businesses and the innovative development of the local economy in general.

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