

## Use of Financial Mechanisms in Cluster Structures

Toksobaev Bulat T.

Doctor of Economics, Kyrgyz Economic University Named After M.Ryskulbekov, Kyrgyz Republic

E-mail: [toksobaevbulat@gmail.com](mailto:toksobaevbulat@gmail.com)

0000-0003-2849-2628

Toktosunova Cholpon T.

Ph.D in Economics,

Kyrgyz Economic University Named After M.Ryskulbekov, Kyrgyz Republic

E-mail: [Cholpon75@mail.ru](mailto:Cholpon75@mail.ru)

0000-0001-6931-7880

Gulnaz T. Abdukadyrova

Ph.D in Economics

Kyrgyz Economic University Named After M.Ryskulbekov, Kyrgyz Republic

E-mail: [a\\_gul1@mail.ru](mailto:a_gul1@mail.ru)

0000-0001-6343-3151

Ainur E. Kalmanbetova

Ph.D in Economics,

Kyrgyz Economic University Named After M.Ryskulbekov, Kyrgyz Republic

E-mail: [ainur220479@mail.ru](mailto:ainur220479@mail.ru)

0000-0003-3515-0159

Baktygul A. Toksobaeva

Doctor of Economics,

Kyrgyz Economic University Named After M.Ryskulbekov, Kyrgyz Republic

E-mail: [toksobaevabaktygul5@gmail.com](mailto:toksobaevabaktygul5@gmail.com)

0000-0001-6933-4621

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**Abstract.** The successful development of the economy of the Kyrgyz Republic depends on effective mechanisms for the implementation of macroeconomic policy which should be aimed at achieving country competitiveness, the competitiveness of the national economy and the creation of competitive advantages of domestic enterprises and national products.

As a result the competitiveness of the national economy is impossible without the use of innovative mechanisms that accelerate the reform and improvement of internal market elements, in particular clusters. The use of financial mechanisms in cluster development is very interesting. But until now these issues have not received a sufficiently broad consecration and research.

In this regard, the main purpose of the study is to investigate the use of financial mechanisms in cluster structures in order to improve the management mechanisms of cluster development. The reasons are established and the economic and statistical, systemic and comparative analysis and generalization of problems in the country competitiveness, the competitiveness of the national economy are carried out. The article considers the use of insurance and other financial organizations in

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industrial clusters as mechanisms that provide risk management and sources of investment resources.

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## 1. Introduction

The study of the concepts of competitiveness, competitive advantages and development strategy shows that competitiveness from the micro level to the macro level is interdependent and follows from one another i.e. competitive and high-quality products ensure the competitiveness of the enterprise and naturally has a positive impact on the development of the economy as a whole. It is important to understand that priority sectors of the economy will only be successful in their development when their products and services are in demand, competitive and recognizable in other countries.

The competitiveness of the national economy is impossible without the use of innovative mechanisms that accelerate the reform and improvement of internal market elements, in particular clusters. The use of financial mechanisms in cluster development seems to be very interesting. But, until now, these issues have not received wide enough consecration and research.

In accordance with the National Development Strategy of the Kyrgyz Republic for 2018-2040, clusters should become an effective mechanism for introducing innovations in industry. The Strategy notes that it is necessary to move from supporting individual enterprises to supporting not just groups of enterprises but also the formation of effective relationships between the participants of the innovation system. (National Development Strategy, 2018)

As a result the competitiveness of the national economy is impossible without the use of innovative mechanisms that accelerate the reform and improvement of internal market elements, in particular clusters.

In general for the state economy, clusters serve as signs of the growth stage of the domestic market. After the formed cluster, newly formed clusters are often deployed and the competitive potential of the state at the international level as a whole increases. It builds on the clusters' own strengths while outside of them the country's economy can remain at the same level (The National Strategy, 2018).

## 2. Materials and methods

As you know a cluster is a group of geographically adjacent interconnected companies (suppliers, manufacturers, etc.) and related organizations (educational institutions, government agencies, infrastructure companies) that operate in a specific area and complement each other. However it is important to note the following points:

- first as a phenomenon natural clusters are the result of competition in the process of which companies, firms, etc. of the cluster have won over all other competitors;
- secondly competition is constantly located within the formed cluster this ensures the mutual interest of the cluster participants in the formation of competitive advantages and creates

conditions for the constant growth of the competitiveness of the products produced: goods and services.

Cluster development creates the following conditions:

- new producers coming from other industries are accelerating their development, giving an impetus to the development of research and finding the necessary funds for the introduction of progressive strategies;
- there is an unhindered exchange of information and a rapid distribution of innovations across the networks of consumers or suppliers who have contacts with many competitors;
- interdependence within the cluster leads to the emergence of new directions in competition and leads to the birth of completely new opportunities;
- human resources and ideas form new combinations.

The world experience of advanced countries speaks not only about efficiency but also about the inevitable regularity of the emergence of different types of clusters. Stimulating the functioning of the emerging territorial production clusters is presented as one of the most important directions for creating a nationwide system of support for innovation and technological development which should ensure the country's breakthrough into the global markets of high - and medium-tech products.

In the course of the study it was revealed that on average, every fourth company (with the number of employees of at least 20 people) In the European Union, it operates in a cluster environment characterized by close cooperation with other local companies and strong links to the local business infrastructure. A third of the companies indicated that they actively cooperate with state laboratories and research centers (36%). As for the activation of innovation activity within the cluster, information exchange plays an important role here. Many cluster companies are involved in innovation: 60% of EU companies have implemented an innovative product in the last two years and about half have implemented an innovative technology. Overall 78% of the companies surveyed in the EU were engaged in activities that indirectly indicate innovation activity. (Golovanova and Kadochnikov, 2011).

In the post-Soviet states cluster principles are defined as a tool for the formation of regional business. This path offers great chances both in terms of increasing the competitiveness of local businesses and for the growth of an effective economic policy. In recent years Russia has been the leader in creating clusters in various industries among the CIS countries. Examples are mountain tourism clusters, industrial clusters in the oil and gas industries, scientific-production and scientific - educational clusters.

Due to the fact that clusters stimulate the competitiveness of enterprises and ultimately the competitiveness of products, the support and promotion of public authorities is necessary.

On the one hand, Kyrgyz companies report significant innovation activity which is well above the average of 34.6% and below only the indicator of Belarus which was 66.9% and on the other hand, the private sector in the Kyrgyz Republic is not quite ready for a nationwide transformation (Innovations for sustainable development, 2019).

The fact that the business sector is unable to embrace innovation whether in the form of new products, technologies, business models or management systems is confirmed by a number of indicators. According to the 2016 Executive Opinion Survey which is the main source of information for the Competitiveness Index, Kyrgyzstan's scores on company-level technology

adoption, potential for innovation, PRI (Project Research Institute) and technology transfer are in the range of 3.2 to 3.4 out of a possible seven which is lower than those of most similar countries. The country has only 0.2 certificates of the International Organization for Standardization (ISO) 9001 per one million people while in Belarus this figure is 385, in Russia-63, and in Uzbekistan-2.2 (ISO 9001 database). The indicator for trademark applications filed by residents of the country is only slightly better and in 2015 reached 146 per one million people (World Bank Development Indicators – WBDI) but Kyrgyzstan lags far behind Georgia (1,122), Russia (904) and Belarus (756). A 2014 BEEPS survey found that only half of Kyrgyz companies have their own website and only 11 percent use the technology under a third-party license. The dynamics of entrepreneurship development is low: from 0.8 to 1.1 new companies per 1000 people of working age are registered per year which is much lower than in similar CIS countries. All this indicates that the critical mass of productive opportunities for economic diversification in the mass transition to higher-value-added activities has not yet been accumulated and the products of innovation are limited. Each year companies register only about 100 patents compared to 1500 in Belarus. Gross RDW (Research and Development Work) expenditure ranges from only 0.1 to 0.2 per cent of GDP with the bulk of it financed by public funds. In this regard, a coherent public policy is needed to help create innovative opportunities. (Innovations for sustainable development, 2018, 2019, 2020)

Kyrgyzstan has all the prerequisites for creating clusters but the most important issue remains the financial support of cluster development.

The study shows that the inclusion of financial organizations including banks and insurance organizations in industrial clusters indicates that there is a certain interest in attracting insurance as a tool to protect against commercial risks and banks for financial support. The validity of this statement is based on the fact that the cluster participants in the process of competition are obliged to constantly improve production, apply innovative technologies, break into new markets which indicates the expansion of existing property interests and the emergence of commercial risk (Toksobaeva and Zorka, 2017).

In Europe, financial clusters have long been developed which provide services that include all types of financial activities (mediation, business, financial and insurance services, consulting, management, etc.) which are supported by a strong infrastructure. An example is the financial clusters in England and Germany (Toksobaeva and Toksobaev, 2021).

This is an absolutely new way to solve the issues of structuring the national economy which makes it possible to form a systematic management for the production of competitive products, starting from solving a complex of issues of training personnel who have the ability to generate new ideas, products, etc.

According to the Concept of cluster development in Kyrgyzstan the cluster participants can be divided into three groups:

- \* Ministries and departments of the Republic, local authorities and management bodies and the Cluster Coordination Council-participants who have an indirect influence on the functioning of the cluster and their role is to coordinate and regulate its activities;

- \* Enterprises that produce the main goods/services of the cluster. They are combined with each other both vertically i.e. the chain of purchases and sales and horizontally -additional

services and products, the use of such special costs, technologies or institutions, and connections;

\* Organizations that serve enterprises that produce key products/services in the cluster. These organizations are not directly involved in the production of the cluster's key goods/services but their existence has a significant impact on its development.

The cluster approach and its possibilities should be considered from two sides:

- in the form of the inclusion of insurance and other financial organizations in industrial clusters as tools that provide risk management and sources of investment resources and ultimately the creation of financial and industrial groups;
- as an opportunity to form financial clusters that finance economic sectors with competitive insurance services.

In order to implement the directions of economic modernization based on cluster principles it is mandatory to develop a reasoned policy containing a detailed design of the formation and state support for clusters. This methodology provides fundamental answers to the main questions of the strategy for creating and improving financial clusters in the economy of the Kyrgyz Republic (Toksobaeva, 2010).

### 3.Key issues

The most important problem in Kyrgyzstan is the ineffectiveness of the ongoing economic reforms to modernize the economy and reform the real sector of the economy in view of political crises, revolutions and constant changes of government (Toksobaeva and Toksobaev, 2018). Each new government considers it its duty to develop its own national program of socio-economic development of the Kyrgyz Republic which is not implemented in time as it is replaced by another government;

- lack of legislative and regulatory framework for the formation of clusters;
- In Kyrgyzstan the state policy on the formation and creation of clusters is not implemented. There is a lack of competent and accessible information for producers, company managers, and farmers about the advantages of clusters and the use of cluster approaches in economic initiatives. It is the lack of competent and understandable information about clusters that leads to misunderstanding of management personnel at all levels;
- the practical absence in the regions of large and medium-sized producers and processors, enterprises and organizations of various forms of management and specialization ready to introduce innovations. The private manufacturing sector in the Kyrgyz Republic is not ready for transformation and corruption and informality prevail which hampers innovation and capital accumulation. Companies do not engage in long-term business planning. Due to the national mentality, the company's funds are often used not for the development of production but for other needs;
- in the regions the production infrastructure processing, storage and marketing of agricultural products are practically not developed. There are practically no economic, technological and production links and relationships between existing structures;
- it is noted that there is a significant shortage of highly qualified managers, professionally managed mid-level companies that can be ready to introduce innovations, technical and

organizational changes. Managers are not ready for the merger and consolidation of companies do not have the necessary professional competencies in the field of innovation implementation;

- in research institutes and in the leading educational institutions of the country insufficient attention is paid to the development of cluster formation issues;
- due to the constant political crises and the lack of incentives for investment the economy of the Kyrgyz Republic is unattractive for foreign investors.

#### **4. Results**

1. Establishing cooperative links between innovation stakeholders in particular between RDW and industry at the project planning stage;
2. The emergence and awareness of the value of identifying future commercial opportunities.
3. The emergence of possible tools to strengthen the products of innovative activity of companies.
4. Creating conditions for effective organizational development of financial and industrial clusters, including cluster participants, building a cluster development strategy that guarantees the growth of competitive advantages of cluster participants;
5. Creating conditions for effective financial support for projects that increase the competitiveness of cluster participants through the concentration and coordination and direction of funds, taking into account the priorities of cluster formation, economic policy measures;
6. The emergence of incentives for the business sector (such as tax and tariff incentives, access to subsidized credit resources, government guarantees, etc.), designed for technological modernization of production facilities and the purchase of equipment to ensure customer-supplier interaction and the formation of clusters;
7. The emergence of mechanisms that facilitate the distribution of costs and risks between business partners as well as within the framework of public-private partnerships in the implementation of modernization projects (Kamchybekov et al., 2018).

#### **5. Discussion**

In recent years the state actively intervening in the course of economic processes most often uses various financial instruments. At this stage the main sources of cluster financing are considered to be the state and the cluster participants, but for faster and more effective development it is necessary to attract (or form) new financial partners. As a result, due to the lack of significant capital in medium - sized manufacturing companies, support from private, public and international financial organizations is of great importance. Therefore it is important to study the process of identifying new financial cluster initiatives and partners as well as to develop the basics of the concept of their formation (Kamchybekov, et al., 2018).

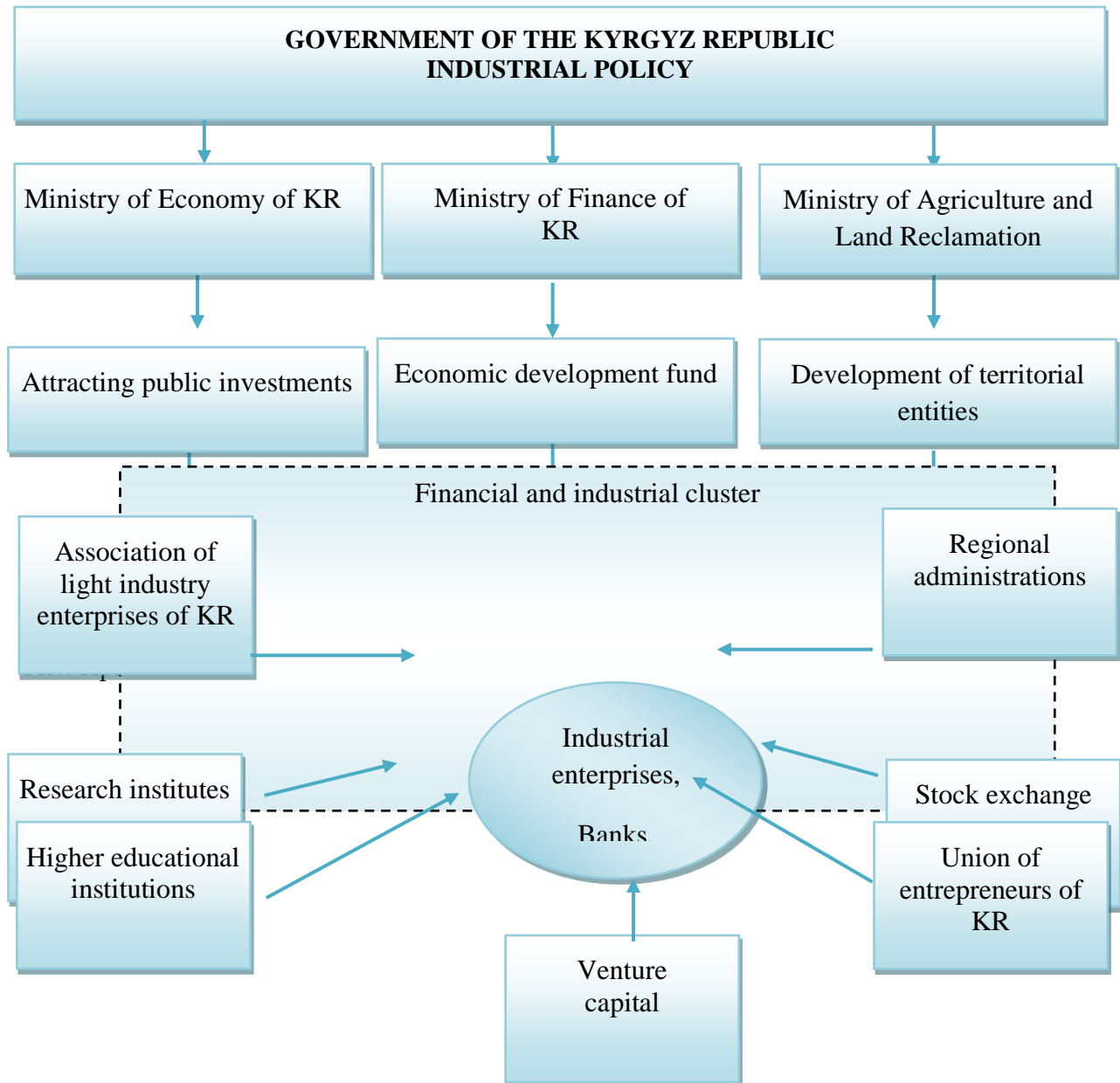
The integration of financial and industrial capital leads to an increase in the coherence of the actions of economic entities within groups, reducing the need for replenishment of working capital and investment resources from external sources by strengthening payment discipline in groups optimizing taxes and financial flows. The concentration and centralization of business leads to the effect of economies of scale. The integration of financial and industrial capital is thus directly related to improving the competitiveness of domestic industrial enterprises,

stabilizing and developing the economy, stimulating economic growth, and reducing the risks of venture capital.

For example, a prominent scientist, a corresponding member of NAS KR, Musakozhoev Sh. M. notes that in the modern economy the high competitiveness of the territory is based on the strong positions of individual clusters and for the further innovative development of the Kyrgyz Republic, it is necessary to create a state insurance company to insure private investments in the implementation of innovative projects (Musakozhoev, 2015). Based on the vision of forming a financial cluster, formed on the basis of studying the international experience of Russia, Ukraine, Kazakhstan, etc., we identified the participants of the financial and industrial cluster. Figure 1 below shows an approximate model of an industrial cluster developed by us with the presence of financial and industrial cluster. The approximate model of the financial and industrial cluster shows that the core of the cluster consists of: (Toksobaeva, 2016).

- several industrial enterprises that make up the value chain;
- banks that provide credit services and in some cases are the owners or partially owners of enterprises;
- insurance organizations that provide insurance services to private capital in the face of manufacturing companies to reduce risk.

Figure 1 below shows a model of a financial and industrial cluster (Toksobaeva and Toksobaev, 2018).



**Figure 1. An approximate model of a financial and industrial cluster**

The organizational structure of the cluster may include:

- various ministries that attract investment from various international financial institutions if the cluster is of priority importance for the development of the economy;
- association of light industry enterprises and the union of entrepreneurs of Kyrgyzstan which can support cluster initiatives;
- research institutes that can provide support for research and innovation;
- higher educational institutions that provide targeted training of specialists;



- regional administrations that provide assistance to those clusters that are located on their territory;
- private capital that invests in the activities of enterprises.

In general at the stage of the initial implementation of cluster initiatives on the territory of the cluster, financial services play a service role in the formation of a cluster of the real sector of the economy.

Therefore the priority task is to form a regional development strategy based on the support and development of cluster initiatives. Thus the cluster approach, as an alternative to the traditional industry sector is optimal for the competitive development of the cluster itself and the region in which this cluster is located (Toksobaev, 2016).

Currently one of the main risks of investing and evaluating cluster initiatives is borne by venture capital companies. If the cluster is already formed, the creation of new enterprises, the development of technologies and the search for new market needs begin. At this stage financial companies can provide not only financing that will support the initial stages of development but also other services: business, consulting, mediation, financial management, and coordinate the creation of special funds. In order to create industrial and financial clusters it is necessary to attract free financial resources i.e. funds from the venture fund which will accelerate the development of enterprises but there is a certain risk. As a result it is necessary to attract insurance companies to reduce the risk of venture capital investments (Toksobaev and Doolbekov, 2016).

Insurance companies operating in clusters, insuring private investments in the implementation of various large innovative or financial projects also become competitive in the market because they do not work with small entrepreneurs but with large capital and several enterprises at the same time.

Financial institutions (banks, insurance companies, non-state pension funds, venture capital companies, investment funds, etc.) have their own goals and ways to implement them but they can be involved in cluster initiatives to form a common strategy for the development of territories in the long term (Kalmanbetova and Ryskulbekov, 2018).

Thus the formation of modern financial and industrial clusters will have a positive impact on all sectors of the region's economy, increase budget revenues, improve business infrastructure, well-being and living conditions in the region. Financial organizations carrying out their activities in cluster initiatives more successfully form their competitive advantages, become competitive in the market and gain stability.

## 6. Conclusion

As part of the implementation of industrial policy the further development of the national economy and the formation of its competitiveness, taking into account the cluster approach, it is necessary for the Government of the Kyrgyz Republic and other interested parties to take a set of measures aimed at the further development of the cluster policy (Kamchybekov et al., 2020):

1. Develop a methodology for the formation and development of cluster structures that will contain:

- methodological recommendations for the implementation of cluster policy in the Kyrgyz Republic;
  - methodological recommendations and instructional documents on the formation and functioning of clusters, issues related to the formation of financial and economic, technological, production, and information interactions between cluster participants.
2. Consider the possibility of creating a department for the implementation of cluster policy in the structure of the Ministry of Economy.
  3. Provide for the creation of training centers or advanced training courses for managers of small and medium-sized businesses on the methodological foundations and principles of cluster formation.

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